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**United States
Environmental Protection Agency
FISCAL YEAR 2016**

**Justification of Appropriation
Estimates for the Committee
on Appropriations**

EPA-190-R-15-001

February 2015
www.epa.gov/ocfo

Mission

The mission of the Environmental Protection Agency (EPA) is to protect human health and the environment.

Budget in Brief Overview

The mission of the Environmental Protection Agency (EPA) is to protect human health and the environment. We achieve this by keeping pollution out of the air we breathe and the water we drink, fish, and swim in; and harmful chemicals out of the food we eat and the lands where we build our homes and our communities. The agency's FY 2016 budget request of \$8.6 billion enables us to support a solid and focused dedication to carrying out our mission and to build upon the EPA's unwavering commitment to all our communities.

The FY 2016 budget request supports implementation of the EPA's priorities through efforts to develop and implement flexible, cost-effective, common sense and sustainable actions to address climate change, to make a visible difference in our communities, to make progress in meeting water infrastructure needs, to strengthen our partnerships in environmental protection, to protect public health, and to safeguard the environment. Today's environmental challenges require us to consider creative approaches to address the complex interaction of pollutants, ensure compliance with environmental laws, and efficiently utilize new tools that promote innovation, incentives and partnerships.

Cutting carbon pollution is essential to reducing the impact of climate change but it is one of the greatest economic opportunities of the 21st century. Investments in pollution-reducing technologies as well as proven energy efficiency and clean energy solutions are investments in American jobs, American industries, and Americans' health. The EPA's Clean Power Plan will help cut carbon pollution from our largest source, power plants. Investing now will lead to health and climate benefits worth an estimated \$55 billion to \$93 billion in 2030, including avoiding 2,700 to 6,600 premature deaths and 140,000 to 150,000 asthma attacks in children now and in future generations. In conjunction with the Clean Power Plan, the Administration is proposing the Clean Power State Incentive Fund, which will provide up to \$4 billion for states choosing to go beyond minimum requirements in the Clean Power Plan. The Fund will enable states that accelerate their reductions from the power sector to receive resources for their heightened efforts. States could use funds for a range of activities that advance or complement the Clean Power Plan.

Recognizing the importance of on-the-ground work, the EPA will focus resources across all our programs to better support community environmental efforts, including those in rural communities. The EPA's FY 2016 budget strengthens the agency's long-standing focus on work that will benefit people's lives and the wellbeing of their communities, advances environmental

justice, and ensures effective enforcement of environmental laws. Using an integrated and multi-faceted approach, the EPA will help communities address environmental concerns, take advantage of advances in technology to detect pollution in their air and water, and build capacity for follow-up activities that will visibly reduce pollution and improve community health and the environment. We will work to improve access for communities, individuals, businesses, and federal, state, local, and tribal governments to usable and understandable information so that they may participate more fully as partners in managing human health and environmental risks in their communities. EPA staff will be dedicated to work as a cross-agency, multi-media team to help communities identify the correct environmental program to address their needs. To further leverage our partnerships and to reach more communities, the EPA will work with non-governmental organizations (NGO), academic and other institutions to support “circuit riders” to provide technical assistance to multiple communities on a variety of issues, including climate resilience. A goal is to build and strengthen the adaptive capacity of communities, with a focus on those that are underserved, through tools, training, technical assistance, data, and information.

The EPA also will leverage existing grant programs like the Brownfields cooperative agreements and Tribal Grants to support communities in their efforts to return contaminated lands to use and to build sustainable communities and environmental programs tailored to fit community or tribal needs. The EPA is continuing work to improve the safety and security of chemical facilities and reduce the risks of hazardous chemicals to facility workers and operators, communities, and responders. Together with communities, states and federal partners, the agency is strengthening preparedness, data management, and coordination. Tools and technology will be an important part of ensuring that communities have the information they need to respond to the risks of pollution in their neighborhoods. The EPA will ensure that our decisions take into consideration the impacts on disadvantaged communities through increased analysis, better science, and enhanced community engagement.

Access to clean and safe drinking water, as well as a reliable and effective wastewater system, is important to every American. An aging water infrastructure system and the increasing impacts of climate change create opportunities and the need for innovation and a new approach. Water infrastructure includes the pipes, drains, and concrete that carry drinking water, wastewater, and stormwater and the systems are costly and investments from multiple sources are necessary to address these needs. Building on the strong funding level of \$2.3 billion provided through the Clean Water and Drinking Water State Revolving Funds, \$50 million is included for technical assistance, training, and other efforts to enhance the capacity of communities and states to plan and finance drinking water and wastewater infrastructure improvements. The EPA will work with states and communities to promote innovative practices that advance water system and community resiliency and sustainability. Dedicated funding through the Clean Water SRF will advance green infrastructure activities such as green roofs, rain gardens, and wetlands which can help cost-effectively meet Clean Water Act requirements and protect and restore the Nation’s lakes and

rivers. A new water investment center will focus efforts on issues such as financial planning for future public infrastructure investments; expanding work with states to identify financing opportunities for small communities; and enhancing partnership and collaboration with the U.S. Department of Agriculture on training, technical assistance, and funding opportunities in rural areas. The center is part of the President's Build America Investment Initiative – a government-wide effort to increase infrastructure investment and promote economic growth by creating opportunities for state and local governments and the private sector to collaborate on infrastructure development.

Effective environmental protection is a joint effort and a priority of the EPA and its state and tribal partners. The complex environmental challenges of today and the future require a true partnership of co-regulators, with the perspective of an integrated “environmental protection enterprise” for the country, as our shared responsibility. In FY 2016, we are setting a high bar for continuing our partnership efforts with states and tribes. Recognizing the increasing demands on limited federal, state, and tribal resources, the budget provides \$1.2 billion in categorical State and Tribal Assistance Grant funding, an increase of \$108 million, and opportunities for closer collaboration and targeted joint planning and governance processes. One example of this focus is the commitment by the governmental co-regulators in the national environmental protection enterprise to work collaboratively to streamline, reform, and integrate our shared business processes and practices through the E-Enterprise approach. Joint governance serves to organize the partnership, elevate its visibility, boost the capacity to coordinate, and help ensure the inclusiveness and effectiveness of shared process and management improvements, which will yield the benefits of increased transparency, efficiency, and burden reduction for communities, businesses, and government agencies when implemented. Additionally, the Clean Power Plan implementation propels the extensive and unprecedented work with states, tribes, and territories to develop necessary infrastructure, provide technical assistance, and build capacity. Success will result from states using the significant flexibility they have to tailor their plans using a variety of approaches, such as through energy efficiency and renewable energy measures and through multi-state plans.

The EPA is an accountable steward of taxpayer resources and strives to deliver environmental protection in the most efficient way. The EPA continues to implement business process changes designed to create greater programmatic effectiveness and efficiency in collaboration with our state and tribal partners. The EPA's work is guided by the best possible scientific information and a commitment to transparency and accountability.

To learn more about how the agency accomplishes its mission, including information on the organizational structure and regional offices, see: <http://www.epa.gov/aboutepa/>.

FY 2016 Annual Performance Plan

The EPA's FY 2016 Annual Performance Plan and Budget of \$8.6 billion is \$452 million above the FY 2015 Enacted Budget of \$8.2 billion¹. The FY 2016 budget proposes carefully selected investments and steady implementation that build on the foundation laid by earlier choices and the discipline imposed. To provide an impetus towards a renewed focus on top priorities, the agency has positioned our programs and partners to most efficiently utilize critical resources to positively impact the American economy, local, state and tribal communities. In FY 2016, we remain focused on our priorities in: addressing climate change and improving air quality; taking action on toxics and chemical safety; protecting water; maintaining core enforcement strength; supporting state, tribal and local partnerships; strengthening the EPA as a high performing organization; and working toward a sustainable future. The agency requests 15,034 appropriated FTE in FY 2016 to support our highest priorities and our critical mission.

The EPA's FY 2014-2018 Strategic Plan guides this budget and the choices made reflect performance results and related data. The EPA's FY 2014 performance information is highlighted throughout the budget.

FY 2014 – 2015 Agency Priority Goals

This budget highlights EPA's six FY 2014-2015 Agency Priority Goals that advance the agency priorities and the agency's Strategic Plan. Additional information on the EPA's Agency Priority Goals can be found at www.performance.gov and in subsequent chapters in this document.

Reduce Greenhouse Gas Emissions from Cars and Trucks

Through September 30, 2015, EPA, in coordination with Department of Transportation's fuel economy standards program, will be implementing vehicle and truck greenhouse gas (GHG) standards that are projected to reduce GHG emissions by 6 billion metric tons and reduce oil consumption by about 12 billion barrels over the lifetime of the affected vehicles and trucks.

Clean up Contaminated Sites to Enhance the Livability and Economic Vitality of Communities

By September 30, 2015, an additional 18,970 sites will be made ready for anticipated use, protecting Americans and the environment one community at a time.

Assess and Reduce Risks Posed by Chemicals and Promote the Use of Safer Chemicals in Commerce

By September 30, 2015, EPA will have completed more than 250 assessments of pesticides and other commercially available chemicals to evaluate risks they may pose to human health and the environment, including the potential for some of these chemicals to disrupt endocrine systems.

¹ FY 2015 Enacted includes a \$40 million rescission to State and Tribal Assistance Grants

These assessments are essential in determining whether products containing these chemicals can be used safely for commercial, agricultural, and/or industrial uses.

Improve Environmental Outcomes and Enhance Service to the Regulated Community and the Public

By September 30, 2015 reduce EPA reporting requirements by one million hours through streamlined regulations, providing real-time environmental data to at least two communities, and establish a new portal to service the regulated community and public.

Improve, Restore, and Maintain Water Quality by Enhancing Nonpoint Source Program Leveraging, Accountability, and On-the-ground Effectiveness to Address the Nation's Largest Sources of Pollution

By September 30, 2015, 100 percent of the states will have updated nonpoint source management programs that comport with the new Section 319 grant guidelines that will result in better targeting of resources through prioritization and increased coordination with USDA.

Improve Public Health Protection for Persons Served by Small Drinking Water Systems, Which Account for More than 97% of Public Water Systems in the U.S., by Strengthening the Technical, Managerial, and Financial Capacity of Those Systems

By September 30, 2015, EPA will engage with an additional ten states (for 30 total states) and three tribes to improve small drinking water system capability to provide safe drinking water, an invaluable resource.

FY 2016 Funding Priorities

Addressing Climate Change and Improving Air Quality

One of the most significant challenges for this and future generations is the threat from a changing climate. The FY 2016 budget prioritizes climate change and reflects the President's 2013 Climate Action Plan. On June 2, 2014, the EPA proposed the Clean Power Plan establishing carbon pollution standards for existing power plants. The Clean Power Plan is President Obama's top priority for the EPA and the central element of the US domestic climate mitigation agenda. These proposed standards reflect the EPA's extensive outreach to and listening sessions with its stakeholders — the regulations will reflect innovative approaches and flexibility for achieving solutions. The flexibility reflects extensive and unprecedented work with states, tribes, and territories to develop necessary infrastructure, provide technical assistance, and build capacity to ensure successful plan implementation. In support of the critical role of the states, \$25 million is provided in grants to help build capacity to assist in this vital effort.

While EPA is making significant progress addressing greenhouse gas (GHG) emissions, further efforts are required to put the country on an emissions trajectory consistent with the President's

long-term climate goals. There are significant non-regulatory opportunities for GHG mitigation that can be achieved by leveraging synergies across existing EPA voluntary climate mitigation activities in waste and water. In addition to GHG reductions, these efforts can create jobs, increase tax revenue, and reduce energy demand and to enhance these existing efforts, the agency is providing \$2.2 million. These efforts will generate substantial GHG reductions and result in significant related benefits such as waste reduction and water savings. Activities will include accelerating the recycling rate of municipal solid waste (MSW), and expanding results driven programs such as Water Sense, E3 (Economy, Energy, Environment), and Green Chemistry. For example, MSW recycling is a cost-effective GHG reduction strategy that results in job and tax revenue creation. To date, WaterSense has helped consumers save nearly 800 billion gallons of water and over \$14 billion in water/energy bills. These funds are in addition to \$5 million provided for states in the wetlands program for work on Blue Carbon capture.

Since the passage of the Clean Air Act Amendments in 1990, nationwide air quality has improved significantly. Air rules have the highest estimated benefits across the federal government. Addressing state implementation plans (SIPs), permitting needs, state permit oversight, enforcement, and new demands from climate work results is a significant workload. As required by the Clean Air Act, the EPA also regularly reviews the National Ambient Air Quality Standards (NAAQS) and the science on which they are based and each standard that is updated requires on the ground work. To reduce air pollution, the EPA also sets standards for industrial categories and establishes national emission standards for vehicles. To avoid creating delays in the permit process and to address the SIP backlog, the agency is focusing additional FTE on base air regulatory implementation work to meet the increasing workload.

Making a Visible Difference in Communities across the Country

Many communities are facing multiple pollution problems and are looking for integrated or holistic solutions. To improve the health of American families and protect the environment across the country, the EPA has been focusing the work of diverse programs across the agency at the community level for several years. This work is a priority and a key element of our coordination with other federal agencies, states, tribes, and stakeholders. Recognizing how important this integrated, on-the-ground approach is to communities, the EPA is allocating over \$41 million in extramural funding to a multifaceted effort enabling communities – including small, disadvantaged, and rural communities – to find needed assistance and support for capacity building, planning, and implementation. Efforts will help communities adopt green infrastructure, provide technical assistance for building resilience and adapting to climate change, and empower communities to understand and address environmental impacts through advanced monitoring technology and smart tools. In response to feedback from communities, this budget proposes to bolster the agency’s cross-program capacity and expertise to more comprehensively enable communities facing multiple problems to find assistance and support from the EPA and other partners to help them reduce pollution and improve community health and the environment.

Adaptation and resiliency to the effects of climate change constitute a significant emerging challenge for communities. Local leaders make many decisions to address climate change impacts. However, many small communities lack the capacity to build resilience to climate change and have expressed a need for technical assistance to integrate climate adaptation planning into their work. While the EPA does not have the capacity to provide technical assistance to every community, EPA is proposing to build a cadre of “circuit riders” through NGOs, academia and other organizations to provide this assistance, working cross-media with a focus on improving adaptation and resiliency. In FY 2016, the EPA dedicates \$2.0 million to create this network of “circuit riders” to provide on the ground assistance, with the ultimate goal to build and strengthen the adaptive capacity of communities through the provision of tools, training, technical assistance, data, and information.

The EPA currently provides a range of resources to communities including grants, contracts, and tools, along with numerous community-focused programs in areas such as planning, infrastructure, remediation, and land-use. We recognize that the EPA’s program-specific organizational structure may make it difficult for communities – especially those that are smaller, rural, and/or overburdened – to understand, access, and utilize the wide range of resources and expertise that are available to support them and help them develop their own solutions. To address this concern, in FY 2016, the EPA proposes to provide each EPA regional office with two cross-agency, multi-media Community Resource Coordinators (20 FTE total) along with \$5 million in resources to assist communities. These coordinators will work as a multi-media team to facilitate access to EPA programs and resources for overburdened and vulnerable communities.

Various factors, such as a large number of pollution sources in overburdened communities, may create significant environmental and human health issues. For example, hazardous and non-hazardous wastes on land can migrate to air, groundwater, and surface water, contaminating drinking water supplies, causing acute illnesses and chronic diseases, and threatening ecosystems. In FY 2016, the EPA will direct \$4.5 million and 12 FTE in an Advanced Monitoring technology investment that will provide communities with monitors and greater access to environmental data. This investment recognizes that monitoring technology must often be combined with capacity building within communities, data sharing, and appropriate follow up activities to fully empower communities to take action to improve their health and environment by reducing and mitigating the risks from pollution.

The EPA has made significant investments in tools to support its expansive work in communities and share best practices. For example, the EPA will allocate \$1.175 million to support the advancement of tools that can help communities make decisions about green infrastructure in a way that realizes multiple environmental and community benefits. These tools will ultimately improve data and information to assist the EPA with comprehensive information about communities, local decision-making and locally driven actions. These tools will also complement other proposed community assistance efforts by reaching a much broader range of communities

than is feasible with direct technical assistance. In FY 2016, the EPA will continue supporting all communities through work to assess, cleanup and restore land through all its cleanup programs.

Leveraging Technology

The EPA is at the beginning of a transformative stage in information management, where there will be new and enhanced tools and technologies that will greatly improve the EPA's internal analytic capability and transparency of projects – with the added benefit of allowing the public to do much more with the EPA's data. This is not an effort just to save money; the EPA is looking toward the future for ways to serve the American people better. These efforts include new and enhanced ways to gather data, conduct analysis, perform data visualization and use “big data” to explore and address environmental, business, and public policy challenges. EPA has allocated \$5 million and 2 FTE to continue pilot projects to explore the benefits of large-scale data analytics initiatives. By looking at environmental problems and opportunities in a holistic manner, EPA can identify cross media impacts, leading to creative and more efficient solutions.

E-Enterprise supports agency priorities and \$15.7 million is provided for state grants to support their role in this important effort to modernize and reduce burden. The EPA is allocating \$5.3 million and 4 FTE to provide inspectors with modern mobile tools, greatly increasing efficiency that will allow them to prepare, perform, and analyze the results of inspections on site. Leveraging technology will enable the agency to move from a paper-based evidence gathering process to a digitally based rapid electronic process that will assist in identification of patterns of problems, compile inspection results in a more timely way, increase transparency on compliance status, and allow for quicker responses where appropriate. The EPA will work with our state partners to identify the most promising opportunities to leverage system improvements.

Maintaining a Forward Looking and Adaptive EPA

In FY 2016, the Agency will continue to seek opportunities to develop and enhance the EPA's workforce and business processes. Declining resources and a shrinking workforce make it imperative that the EPA continue to transform itself through improved business practices, more effectively utilizing technology, and ensuring its workforce is properly equipped and trained. It is especially important to promote and instill a culture of continuous business process improvement using tools like Lean principles. EPA is equipping employees to use Lean methods to streamline processes across all agency programs. Lean efforts to date have resulted in weeks and months of time as well as resources saved through changes to internal administrative functions and in EPA-State processes.

The Agency also continues to review space needs and is implementing a long-term space consolidation plan that will reduce the number of occupied facilities, consolidate space within remaining facilities, and reduce square footage wherever practical. In just the last couple of years, the EPA released over 225 thousand square feet of space at headquarters and facilities nationwide, resulting in annual rent avoidance of \$8.3 million. The FY 2016 Budget doubles down on this

success with a \$15 million package of investments in select consolidation projects across EPA's program offices and laboratory facilities. These projects will capture significant cost savings and help to offset EPA's escalating rent and security costs.

Another key component of EPA's effort to enhance agency effectiveness as a forward looking organization is legal support. Expanding legal workload have overloaded the legal counselling staff in the regional and general counsel offices. Over the last five years, the number of lawsuits EPA counselling attorneys have handled during a year has more than doubled, increasing from approximately 240 in 2009 to well over 500 in 2013. In addition to the increase in the number of cases, the complexity of the cases – and the risks to the agency's efforts to protect human health and the environment – have steadily increased. In FY 2016, the EPA is dedicating 23.8 FTE, including 17 in the regional offices to manage growing legal workload and be more responsive to requests from states, facilities seeking permits, and citizens. Additional FTE allow attorneys to improve the timeliness of counselling, to devote more time to non-litigation counselling efforts, and to work to improve the defensibility of EPA's actions.

Taking Action on Toxics and Chemical Safety

Chemicals and toxic substances are ubiquitous in our everyday lives and products. We use them in the production of everything from our homes and cars to the cell phones we carry and the food we eat. Chemicals often are released into the environment as a result of their manufacture, processing, use, and disposal. Vulnerable populations, including low-income, minority, and indigenous populations, as well as children, may be disproportionately affected by, and thus particularly at risk from, exposure to chemicals. Keeping communities safe and healthy requires action to reduce risks associated with exposure to chemicals in commerce, our indoor and outdoor environments, and products and food. The EPA will also continue to implement its Enhanced Chemicals Management approach, which expands and enhances the amount, accessibility, and usefulness of chemical safety information, improving the ability of the EPA, other regulators, and the public to assess chemical hazards and potential exposures, identify potential risks, and take appropriate risk management action. Continuing to oversee the introduction and use of pesticides, improve our Integrated Risk Information System (IRIS) program, conduct risk assessments for chemicals already in commerce, expand the use of computational toxicology and other computer-based solutions, identify and address children's health risks in schools and homes, and improve chemical management practices will remain of central relevance to the EPA's mission, including maintaining incentive-based efforts and research to promote green chemistry.

Protecting Water

While much progress to improve water quality has been made over the last two decades, America's waters remain imperiled from increased demand, land use practices, population growth, aging infrastructure, and the impacts of climate change. Preserving and restoring the integrity of these

waters is critical not only for protecting human health and the environment but also for property values, tourism, recreational and commercial fishing, hunting, and other economic considerations. The EPA will continue its partnerships with other federal agencies, states, tribes, municipalities, and private parties to address these complex challenges through a combination of traditional and innovated strategies, such as promoting green infrastructure and sustainable solutions, building resiliency, developing new targeting tools, developing and implementing nutrient limits, along with our core water quality work.

In FY 2016, the agency is requesting \$2.3 billion for the Clean Water and Drinking Water State Revolving Funds (SRFs), continuing the funding levels provided in FY 2015. Since their inception, the SRFs have been capitalized by over \$61 billion, and over \$25 billion since 2009. Building on the strong funding level for the SRFs, \$50 million is included for technical assistance, training, and other efforts to enhance the capacity of communities and states to plan and finance drinking water and wastewater infrastructure improvements.

The surface water program will refocus our work to support the agency priorities of protecting communities and addressing climate change. The FY 2016 investment in the EPA's multimedia greenhouse gas mitigation strategy, for example, will expand the successful WaterSense program, a voluntary partnership program that labels high-performing, water-efficient products. The WaterSense program has, to date, saved nearly 800 billion gallons of water and over \$14 billion in water/energy bills. In addition, \$5 million in state grant funding is provided in the wetlands program for grants awarded competitively for efforts to increase climate resilience by protecting and enhancing coastal wetlands FY 2016.

Launching a New Era of State, Tribal, and Local Partnerships

Supporting our state and tribal partners, the primary implementers of environmental programs on the ground, is a long-held priority of the EPA. Funding to states and tribes in the State and Tribal Assistance Grants (STAG) account continues to be the largest percentage of the EPA's budget request, at 42 percent in FY 2016. The FY 2016 Budget provides a \$108 million increase to funding levels for Categorical grants compared to the FY 2015 Enacted Budget. This increase recognizes the critical needs of our partners and the need to leverage our limited resources to deliver environmental protection to all Americans.

Eliminated Programs

The EPA continues to examine its programs to find those that have served their purpose and accomplished their mission. The FY 2016 President's Budget eliminates a number of programs totaling nearly \$44.4 million including Beaches Protection categorical grants, State Indoor Radon

grants, Targeted Airshed grants, and Water Quality Research and Support grants. Details are found in the appendix to the EPA FY 2016 Congressional Justification.

**Environmental Protection Agency
2016 Annual Performance Plan and Congressional Justification**

Table of Contents - Resource Summary Tables

APPROPRIATION SUMMARY	3
Budget Authority	3
Full-time Equivalents (FTE).....	4

Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification

APPROPRIATION SUMMARY

Budget Authority
(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud
Science & Technology	\$779,049.0	\$734,648.0	\$769,088.0
Environmental Program & Management	\$2,566,449.2	\$2,613,679.0	\$2,841,718.0
Inspector General	\$41,448.0	\$41,489.0	\$50,099.0
Building and Facilities	\$27,691.3	\$42,317.0	\$51,507.0
Inland Oil Spill Programs	\$16,903.1	\$18,209.0	\$23,378.0
<i>Superfund Program</i>	\$1,137,827.3	\$1,059,980.0	\$1,129,158.0
<i>IG Transfer</i>	\$9,435.9	\$9,939.0	\$8,459.0
<i>S&T Transfer</i>	\$19,834.1	\$18,850.0	\$16,217.0
Hazardous Substance Superfund	\$1,167,097.3	\$1,088,769.0	\$1,153,834.0
Leaking Underground Storage Tanks	\$95,673.8	\$91,941.0	\$95,326.0
State and Tribal Assistance Grants	\$3,642,271.5	\$3,545,161.0	\$3,599,400.0
Hazardous Waste Electronic Manifest System Fund	\$2,626.5	\$3,674.0	\$7,368.0
<i>SUB-TOTAL, EPA</i>	\$8,339,209.7	\$8,179,887.0	\$8,591,718.0
Rescission of Prior Year Funds	\$0.0	(\$40,000.0)	\$0.0
<i>SUB-TOTAL, EPA (INCLUDING RESCISSIONS)</i>	\$8,339,209.7	\$8,139,887.0	\$8,591,718.0
Hurricane Sandy Supplemental	\$570,086.7	\$0.0	\$0.0
TOTAL, EPA	\$8,909,296.4	\$8,139,887.0	\$8,591,718.0

*For ease of comparison, Superfund transfer resources for the audit and research functions are shown in the Superfund account.

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

APPROPRIATION SUMMARY

Full-time Equivalent (FTE)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud
Science & Technology	2,208.5	2,243.1	2,200.2
Science and Tech. - Reim	0.4	1.5	1.5
Environmental Program & Management	9,591.0	9,663.5	9,760.7
Envir. Program & Mgmt - Reim	23.5	0.0	0.0
Inspector General	252.4	263.0	268.0
Inland Oil Spill Programs	83.3	99.0	98.3
Oil Spill Response - Reim	9.0	0.0	0.0
<i>Superfund Program</i>	2,590.9	2,535.7	2,523.4
<i>IG Transfer</i>	56.5	58.5	50.1
<i>S&T Transfer</i>	79.6	74.7	71.6
Hazardous Substance Superfund	2,727.0	2,668.9	2,645.1
Superfund Reimbursables	101.0	17.5	17.5
Leaking Underground Storage Tanks	53.1	54.5	54.1
State and Tribal Assistance Grants	0.5	0.0	0.0
WCF-Reimbursable	147.6	171.0	175.0
FIFRA	125.1	145.0	145.0
Pesticide Registration Fund	70.2	0.0	0.0
Hazardous Waste Electronic Manifest System Fund	7.9	8.0	7.9
UIC Injection Well Permit BLM	3.0	0.0	0.0
Deepwater Horizon Natural Resource Damage Assessment	2.5	0.0	0.0
Hurricane Sandy Supplemental	2.0	0.0	0.0
TOTAL, EPA	15,408.0	15,335.0	15,373.3

*For ease of comparison, Superfund transfer resources for the audit and research functions are shown in the Superfund account.

**Environmental Protection Agency
2016 Annual Performance Plan and Congressional Justification**

Table of Contents - Goal and Objective Overview

GOAL, APPROPRIATION SUMMARY.....	7
Budget Authority	7
Authorized Full-time Equivalents (FTE)	9
Goal 1: Addressing Climate Change and Improving Air Quality.....	12
Goal 2: Protecting America's Waters	26
Goal 3: Cleaning Up Communities and Advancing Sustainable Development	42
Goal 4: Ensuring the Safety of Chemicals and Preventing Pollution	61
Goal 5: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance	71

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

GOAL, APPROPRIATION SUMMARY

Budget Authority
(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud
Addressing Climate Change and Improving Air Quality	\$973,415.2	\$992,698.3	\$1,112,870.0
Science & Technology	\$247,521.8	\$242,633.5	\$264,310.3
Environmental Program & Management	\$437,234.2	\$440,673.6	\$529,725.0
Inspector General	\$5,233.1	\$5,436.7	\$6,997.1
Building and Facilities	\$6,640.0	\$10,175.0	\$12,635.5
Hazardous Substance Superfund	\$3,065.7	\$2,996.0	\$3,491.8
State and Tribal Assistance Grants	\$273,720.5	\$290,783.5	\$295,710.3
Protecting America's Waters	\$4,121,953.5	\$4,053,297.9	\$4,053,367.5
Science & Technology	\$152,982.2	\$140,077.6	\$143,645.7
Environmental Program & Management	\$946,142.8	\$980,539.7	\$994,013.1
Inspector General	\$25,729.9	\$25,661.9	\$29,681.0
Building and Facilities	\$4,571.4	\$7,013.2	\$8,580.3
State and Tribal Assistance Grants	\$2,992,527.4	\$2,900,005.6	\$2,877,447.4
Cleaning Up Communities and Advancing Sustainable Development	\$1,862,387.9	\$1,775,552.6	\$1,953,479.0
Science & Technology	\$176,746.6	\$164,121.6	\$154,942.7
Environmental Program & Management	\$319,876.4	\$328,840.1	\$380,115.3
Inspector General	\$5,176.8	\$5,075.5	\$6,731.2
Building and Facilities	\$5,272.3	\$8,036.6	\$9,569.1
Inland Oil Spill Programs	\$14,293.5	\$15,569.2	\$20,542.4
Hazardous Substance Superfund	\$928,332.9	\$863,120.9	\$918,788.2
Leaking Underground Storage Tanks	\$94,976.9	\$91,262.4	\$94,629.9
State and Tribal Assistance Grants	\$315,086.2	\$295,852.3	\$360,792.2
Hazardous Waste Electronic Manifest System Fund	\$2,626.5	\$3,674.0	\$7,368.0
Ensuring the Safety of Chemicals and Preventing Pollution	\$626,482.3	\$620,491.8	\$667,921.1

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud
Science & Technology	\$185,028.8	\$171,731.9	\$188,952.6
Environmental Program & Management	\$389,246.5	\$394,443.0	\$418,951.4
Inspector General	\$2,897.4	\$2,903.3	\$3,559.9
Building and Facilities	\$7,772.7	\$11,860.8	\$14,351.0
Hazardous Substance Superfund	\$7,108.4	\$6,449.0	\$6,006.2
State and Tribal Assistance Grants	\$34,428.5	\$33,103.8	\$36,100.0
Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance	\$754,970.8	\$737,846.4	\$804,080.3
Science & Technology	\$16,769.7	\$16,083.3	\$17,236.6
Environmental Program & Management	\$473,949.4	\$469,182.7	\$518,913.2
Inspector General	\$2,410.9	\$2,411.5	\$3,129.8
Building and Facilities	\$3,434.9	\$5,231.4	\$6,371.2
Inland Oil Spill Programs	\$2,609.6	\$2,639.8	\$2,835.6
Hazardous Substance Superfund	\$228,590.3	\$216,203.1	\$225,547.8
Leaking Underground Storage Tanks	\$696.9	\$678.6	\$696.1
State and Tribal Assistance Grants	\$26,509.0	\$25,415.8	\$29,350.0
<i>Sub-Total</i>	\$8,339,209.7	\$8,179,887.0	\$8,591,718.0
Total	\$8,339,209.7	\$8,179,887.0	\$8,591,718.0

***2014 Actuals do not include Sandy Supplemental**

Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification

GOAL, APPROPRIATION SUMMARY
 Authorized Full-time Equivalents (FTE)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud
Addressing Climate Change and Improving Air Quality	2,497.6	2,501.4	2,606.0
Science & Technology	690.7	703.0	698.3
Science and Tech. - Reim	0.0	1.5	1.5
Environmental Program & Management	1,725.8	1,710.7	1,814.9
Envir. Program & Mgmt - Reim	1.7	0.0	0.0
Inspector General	31.7	34.5	37.4
Hazardous Substance Superfund	13.3	12.5	12.5
WCF-REIMB	34.1	39.3	41.4
Deepwater Horizon Natural Resource Damage Assessment	0.1	0.0	0.0
Inspector General - Reim	0.1	0.0	0.0
Protecting America's Waters	3,154.5	3,160.6	3,156.0
Science & Technology	461.8	462.0	454.1
Environmental Program & Management	2,493.9	2,499.9	2,507.3
Envir. Program & Mgmt - Reim	6.8	0.0	0.0
Inspector General	156.1	162.7	158.8
State and Tribal Assistance Grants	0.5	0.0	0.0
WCF-REIMB	30.0	36.1	35.9
Inspector General - Reim	0.6	0.0	0.0
Deepwater Horizon Natural Resource Damage Assessment	1.9	0.0	0.0
UIC Injection Well Permit BLM	3.0	0.0	0.0
Cleaning Up Communities and Advancing Sustainable Development	3,891.6	3,871.4	3,820.4
Science & Technology	446.2	444.6	421.6
Science and Tech. - Reim	0.4	0.0	0.0
Environmental Program & Management	1,468.2	1,524.6	1,514.2
Envir. Program & Mgmt - Reim	3.6	0.0	0.0
Inspector General	31.4	32.2	36.0

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud
Inland Oil Spill Programs	69.3	84.7	84.0
Oil Spill Response - Reim	9.0	0.0	0.0
Hazardous Substance Superfund	1,687.5	1,678.0	1,657.5
Superfund Reimbursables	90.8	17.5	17.5
Leaking Underground Storage Tanks	49.9	51.1	50.7
WCF-REIMB	26.9	30.8	31.1
Hazardous Waste Electronic Manifest System Fund	7.9	8.0	7.9
Inspector General - Reim	0.1	0.0	0.0
Deepwater Horizon Natural Resource Damage Assessment	0.4	0.0	0.0
Ensuring the Safety of Chemicals and Preventing Pollution	2,418.2	2,410.9	2,389.0
Science & Technology	534.7	557.8	550.4
Environmental Program & Management	1,603.3	1,627.2	1,612.0
Envir. Program & Mgmt - Reim	9.6	0.0	0.0
Inspector General	17.6	18.4	19.0
Hazardous Substance Superfund	20.0	19.9	19.0
WCF-REIMB	37.5	42.7	43.5
Pesticide Registration Fund	70.2	0.0	0.0
Inspector General - Reim	0.1	0.0	0.0
Rereg. & Exped. Proc. Rev Fund	125.1	145.0	145.0
Deepwater Horizon Natural Resource Damage Assessment	0.1	0.0	0.0
Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance	3,444.1	3,390.7	3,401.9
Science & Technology	75.1	75.9	75.9
Environmental Program & Management	2,299.9	2,301.2	2,312.3
Envir. Program & Mgmt - Reim	1.8	0.0	0.0
Inspector General	14.6	15.3	16.7
Inland Oil Spill Programs	14.0	14.3	14.3
Hazardous Substance Superfund	1,006.2	958.5	956.2
Superfund Reimbursables	10.2	0.0	0.0
Leaking Underground Storage Tanks	3.2	3.4	3.4

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud
WCF-REIMB	19.0	22.1	23.0
Inspector General - Reim	0.1	0.0	0.0
Deepwater Horizon Natural Resource Damage Assessment	0.0	0.0	0.0
Total	15,406.0	15,335.0	15,373.3

***2014 Actuals do not include Sandy Supplemental**

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

Goal 1: Addressing Climate Change and Improving Air Quality

Reduce greenhouse gas emissions and develop adaptation strategies to address climate change, and protect and improve air quality

STRATEGIC OBJECTIVES:

- Restore and protect the earth's stratospheric ozone layer and protect the public from the harmful effects of ultraviolet (UV) radiation.
- Minimize the threats posed by climate change by reducing greenhouse gas emissions and taking actions that help to protect human health and help communities and ecosystems become more sustainable and resilient to the effects of climate change.
- Achieve and maintain health- and welfare-based air pollution standards and reduce risk from toxic air pollutants and indoor air contaminants.
- Minimize releases of radioactive material and be prepared to minimize exposure through response and recovery actions should unavoidable releases occur.

GOAL, OBJECTIVE SUMMARY

Budget Authority
Full-time Equivalent
(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Addressing Climate Change and Improving Air Quality	\$973,415.2	\$992,698.3	\$1,112,870.0	\$120,171.7
Improve Air Quality	\$737,634.0	\$751,498.6	\$777,205.8	\$25,707.2
Minimize Exposure to Radiation	\$36,223.5	\$33,840.9	\$39,014.9	\$5,174.0
Address Climate Change	\$182,744.1	\$190,665.3	\$279,469.7	\$88,804.4
Restore and Protect the Ozone Layer	\$16,813.6	\$16,693.5	\$17,179.6	\$486.1
Total Authorized Workyears	2,497.6	2,501.4	2,606.0	104.6

Goal 1: Addressing Climate Change and Improving Air Quality

Strategic Goal: *Reduce greenhouse gas emissions and develop adaptation strategies to address climate change, and protect and improve air quality.*

Introduction

To protect public health and the environment, the EPA is dedicated to protecting and improving the quality of the nation's air. Significant air pollution concerns include climate change, outdoor and indoor air quality, stratospheric ozone depletion, and radiation exposure. To address these concerns, the agency continues to partner with states, tribes, and local governments to implement programs and standards.

Scientific consensus shows that as a result of human activities, greenhouse gas concentrations in the atmosphere are at record high levels. Data show that the Earth has been warming over the past 100 years with the steepest increase in warming evident in recent decades.¹ Consequences of human-induced climate change pose immediate and significant concerns, including rising sea levels that threaten coastal cities in the U.S. and around the world, increasing ocean temperatures, acidification, which affects the oceans' ability to sustain life, and changing precipitation patterns which can lead to more intense droughts and greater numbers of wildfires. Severe heat waves and extreme weather events are projected to intensify and occur more frequently leading to mortalities and sickness. Eventually, more Americans are likely to be affected by certain diseases that thrive in areas with higher temperatures and greater precipitation, including pest-borne diseases, as well as food and water-borne pathogens. The costs of these climate change impacts include increased hospital visits, respiratory and cardiovascular diseases, and even premature death – especially for certain vulnerable populations like the elderly, and children.

Since passage of the Clean Air Act Amendments (CAAA) in 1990, nationwide air quality has improved significantly. From 2003 to 2012, population-weighted ambient concentrations of fine particulate matter and ozone have decreased 26 percent and 13 percent, respectively. However, even with this progress, in 2012, approximately 45 percent of the U.S. population lived in counties with air that did not meet health-based standards for at least one pollutant. Long-term exposure to elevated levels of certain air pollutants has been associated with increased risk of cancer, premature mortality, and damage to the immune, neurological, reproductive, cardiovascular, and respiratory systems. Short-term exposure to elevated levels of certain air pollutants can exacerbate asthma and lead to other adverse health effects and economic costs, such as missed workdays.

The air issues of highest importance facing the agency over the next few years will continue to be greenhouse gas (GHG) mitigation and climate change adaptation, ozone, and particulate air pollution. The EPA uses a variety of approaches to address these challenges including traditional

¹ US EPA. 2014 Climate Change Indicators in the United States, 2014 <http://www.epa.gov/climatechange/pdfs/climateindicators-full-2014.pdf>

regulatory tools; innovative market-based techniques; public- and private-sector partnerships; community-based approaches; and programs that encourage adoption of cost-effective technologies and practices. For example, in FY 2014 the agency convened its first ever National Ports Summit, attracting over 200 participants, including Environmental Justice community representatives, to identify actions the agency can take to protect community air quality while supporting economic growth. This forum provided the opportunity for professionals, experts and stakeholders to share ideas on how to address the challenges faced by our nation's ports and neighboring communities. Also, in FY 2014 the agency issued its first-ever tribes-only Diesel Emissions Reduction Act (DERA) Request for Proposals for funding to lower diesel exhaust exposure on Tribal lands. This dedicated source of additional funding will provide immediate health benefits to Tribal communities.

The EPA will continue to address the impacts of climate change through careful, cost-effective rulemaking and partnership programs that focus on the largest entities and encourage businesses and consumers to limit unnecessary greenhouse gas emissions. The President's Climate Action Plan frames the EPA's strategies to address climate change, and, among other initiatives, tasks the EPA with addressing GHGs from power plants. On June 2, 2014, the EPA proposed state-specific goals to lower carbon pollution from existing fossil fuel-fired power plants and guidelines to help the states develop their plans for meeting the goals. The standards for existing sources will result in carbon pollution from the power sector that is 30 percent lower by 2030 (compared to 2005 emission levels).² In 2012, the electricity sector was the largest source of U.S. greenhouse gas emissions, accounting for about one-third of the U.S. total.

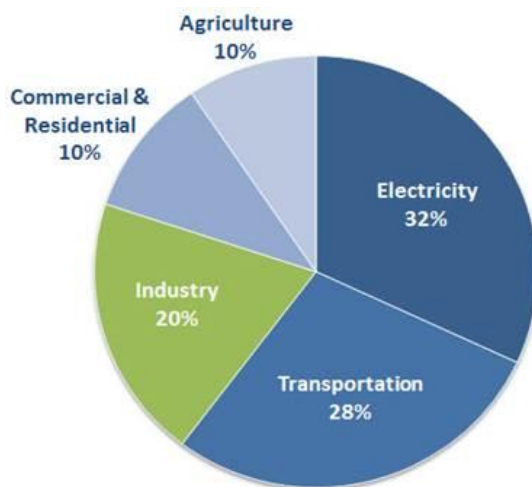


Figure 1: 2012 Total U.S. Greenhouse Gas Emissions by Sector

The rules and guidelines are to be finalized in the summer of 2015 and the EPA will continue to engage in intensive and extensive outreach to states, stakeholders, and the public and provide essential technical guidance to the states as they develop their plans. The EPA is also undertaking rulemakings to set carbon standards for new and modified fossil fuel power plants.

² 79 FR 34832 (June 18, 2014)

The transportation sector is the second largest source of greenhouse gases, and the EPA has made great progress creating a foundation for continuous improvement in emissions reduction technology. Working with the National Highway Transportation Safety Administration (NHTSA), the agency is developing Phase 2 GHG and fuel efficiency standards for heavy-duty vehicles, which will be proposed in March 2015 and are expected to be finalized in March 2016. The EPA, also in coordination with NHTSA, supports implementation and compliance with the GHG emission standards for light-duty and heavy-duty vehicles including the NHTSA Corporate Average Fuel Economy (CAFE) standards that have already been adopted. The national program of fuel economy and GHG standards for model year 2012 through 2025 light-duty vehicles will save approximately 12 billion barrels of oil and prevent 6 billion metric tons of GHG emissions over the lifetimes of the vehicles sold through model year 2025, one of the Agency Priority Goals. In model year 2025, the EPA and NHTSA standards will require average fuel economy for cars and light trucks of approximately 54.5 miles to the gallon, a significant increase from current average vehicle fuel efficiency.³ The EPA also will continue to implement the Renewable Fuels program, which requires an increasing percentage of vehicle fuel sold in the U.S. to be from renewable sources.

The EPA also will promote the use of low global warming potential (GWP) alternatives to hydrofluorocarbons (HFCs) through application of the Significant New Alternatives Policy (SNAP) program. Specifically, the EPA will use authority under section 612 of the Clean Air Act (CAA) to list more environmentally friendly alternatives with lower GWPs, and review existing SNAP listings to consider whether any change to the status of currently acceptable higher-GWP alternatives is appropriate.

Industry, commercial and residential and agriculture sectors also offer opportunities for GHG reductions. The EPA will continue to implement non-regulatory climate change programs that work with key industry sectors to reduce greenhouse gases and facilitate energy-efficiency improvements. As an example, in 2013, the ENERGY STAR program upgraded its Portfolio Manager tool, the industry-leading benchmarking tool used by more than 325,000 commercial buildings—nearly 40% of the nation’s building space—to measure, track, assess and report on energy and water consumption. By the end of 2013, more than 23,000 buildings and plants representing more than 3 billion square feet of space had earned the ENERGY STAR label. These top performers demonstrate that it is possible to emit 35% fewer GHG emissions than typical facilities while delivering financial value to an organization. At the community level, Claiborne Elementary School in Baton Rouge, Louisiana, won the 2014 annual ENERGY STAR National Building Competition: *Battle of the Buildings*. Teams from more than 3,000 buildings across the country spent the past year competing to obtain the greatest reduction in energy use, the Baton Rouge school won by cutting its energy use nearly in half.

The EPA also operates several voluntary programs that promote cost-effective reductions of methane, an especially potent greenhouse gas when released into the atmosphere. The AgSTAR program is a collaboration between the EPA and the Department of Agriculture that focuses on methane emission reductions from livestock waste management operations through biogas

³ US EPA. Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975-2013
<http://www.epa.gov/otaq/fetrends.htm>

recovery systems. The Natural Gas STAR Program spurs the adoption of cost-effective technologies and practices that reduce methane emissions from the oil and natural gas sector through a collaborative partnership with companies. The EPA also will develop regulatory approaches to cost-effectively reduce methane from the oil and gas production sector, as part of the methane strategy under the President's Climate Action Plan and helping to achieve the Administrations' goal of reducing methane emissions from the oil and gas sector by 40-45 percent from 2012 levels by 2025.

The agency also improves ambient air quality through its programs that address criteria pollutants, including ground-level ozone and particulate matter. As required by the CAA, the EPA periodically reviews the National Ambient Air Quality Standards (NAAQS) and the science on which they are based. The EPA also sets standards for industrial categories that cause, or significantly contribute to, air pollution that may endanger public health or welfare.

At the local level, ozone or particulate matter (PM_{2.5}) exceedances of the EPA's air quality standards can sometimes cause "code red," or unhealthy air quality, days to occur. During code red days, outside activity for sensitive populations should be curtailed. The EPA's air quality standards have helped reduce these occurrences on a local level. As an example, air quality has improved in the DC area, which had zero code red days in 2014 – down from a high of 20 in 1998.⁴

The EPA's air toxic control programs are critical to continued progress in reducing public health risks and improving the quality of the environment. The EPA will continue to focus efforts on communities with greater levels of industrial and mobile source activity (e.g., near ports or distribution areas), which, according to the 2005 National-Scale Air Toxics Assessment (NATA), often have greater cumulative exposure to air toxics than non-industrial areas. The air toxics emissions standards must be reviewed every eight years to determine if additional emission control technologies exist, and the EPA has a number of rulemakings underway to propose more effective emission control technologies based on the reviews. This past year the agency published an Advance Notice of Proposed Rulemaking to update air toxics standards for petroleum refineries, which included first-ever proposed requirements for fence-line monitoring. This common sense approach allows the agency and local communities to better understand the risks to neighborhoods located near refineries. If finalized, this rule will ensure that proposed standards are being met and that neighboring communities are not being exposed to unintended emissions.

The EPA continues to implement its indoor air quality and radiation programs. Because people spend much of their lives indoors, the quality of indoor air is a major concern. For example, indoor allergens and irritants play a significant role in making asthma worse and triggering asthma attacks. Over 25 million Americans currently have asthma, which annually accounts for over 500,000 hospitalizations, more than 10 million missed school days, and over \$50 billion in

⁴ Washington Post, October 3, 2014. See <http://www.washingtonpost.com/blogs/capital-weather-gang/wp/2014/10/03/d-c-air-quality-just-keeps-getting-better-zero-code-red-days-in-2014/>

economic costs.⁵ In addition, radon, a naturally occurring yet toxic gas when it accumulates in indoor areas, causes an estimated 21,000 lung cancer deaths annually in the U.S.⁶ The agency works with its non-governmental, federal, state, and local partners to educate, encourage, and equip individuals, schools, industry, the health care community, and others to take action to reduce health risks from poor indoor air quality, especially as they relate to asthma triggers and radon. This past year the agency completed a 10-year effort to build capacity at national, state, and local levels to address environmental asthma management by directly training 45,700 healthcare professionals. These professionals now possess greater expertise and awareness of environmental factors that trigger asthma and will be better able to address this major problem in our nation's communities.

In addition, the agency measures and monitors ambient radiation and radioactive materials and assesses radioactive contamination in the environment. The agency also supports federal radiological emergency response and recovery operations under the National Response Framework (NRF) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

Major FY 2016 Changes

Goal 1 resources and FTE have been targeted to address climate change and enhance ongoing air quality and radiation work, building on progress to date to advance priorities in FY 2016. In implementing these changes, we will increase effectiveness and efficiency while advancing environmental and public health protection. While continuing the EPA's ongoing commitment to science, the rule of law, and transparency, the agency has updated and refined its current research direction to maximize its utility and guide the agenda in the months and years ahead.

Address Climate Change

The FY 2016 budget prioritizes climate action and reflects our commitment to implementing the President's 2013 Climate Action Plan. The broad based plan will cut greenhouse gas pollution that contributes to climate change and affects public health, and support activities to facilitate necessary adaptation to the impacts of climate change.

Key elements of the Climate Action Plan that the EPA's work supports include:

- Cutting carbon pollution from new and existing power plants
- Establishing CO₂ emission standards and supporting increased fuel economy standards for heavy-duty vehicles
- Cutting energy waste in homes, businesses, and factories
- Reducing methane and HFC emissions
- Helping to prepare the country to address the impacts of climate change

⁵ Centers for Disease Control and Prevention (2011, May). Asthma in the U.S. Vital Signs. Retrieved from <http://cdc.gov/vitalsigns/asthma>.

⁶ U.S. EPA, 2003. EPA's Assessment of Risks from Radon in Homes. EPA 402-R-03-003. Available at <http://www.epa.gov/radiation/docs/assessment/402-r-03-003.pdf>.

- Leading international efforts to address climate change, including supporting efforts to control HFCs under the Montreal Protocol

Power plants are the largest source of carbon dioxide emissions in the United States, making up roughly one-third of all domestic GHG emissions. On June 2, 2014, the EPA proposed the Clean Power Plan, which will establish carbon pollution standards for existing power plants. The Clean Power Plan provides states with significant flexibility to tailor their carbon pollution reduction plans to their own unique circumstances using a variety of approaches, such as energy efficiency and renewable energy measures, as well as multi-state plans that build on cooperation and innovation. As a result, state plan development, review and approval will be complex. In FY 2016, the agency will focus existing resources and invest new resources to support states as they develop their plans. Resources will be focused both in the regional offices to provide tailored, state-specific assistance and in headquarters where technical experts will develop guidance and other resources that are sector-wide in scope and address questions that affect overall implementation of the plan. In addition to increased resources for EPA activities, the agency is requesting an increase in categorical grants to states as they work toward deliverables in FY 2016 and beyond.

In conjunction with the Clean Power Plan, the Administration is proposing the Clean Power State Incentive Fund, which will provide up to \$4 billion states that commit to exceed minimum requirements established in the Clean Power Plan for the timing and extent of carbon pollution reductions from the power sector. The Fund will enable states that accelerate their reductions and go beyond the Clean Power Plan to receive funds for, but not limited to, efforts that advance carbon pollution reductions. Efforts may include providing assistance to businesses to expand energy efficiency, renewable energy, and combined heat and power through, for example, low-interest loans and infrastructure investments. Efforts could also include mitigation or adaptation support to address environmental pollution in low income and underserved communities.

In FY 2016, consistent with the President's Climate Action Plan, the EPA plans to finalize a second phase of GHG standards for post Model Year 2018 medium- and heavy-duty vehicles. This second phase of regulations will build upon the success of the first phase and will offer further opportunities to reduce greenhouse gas emissions, decrease the nation's oil use, and benefit consumers and business by reducing the cost of transporting goods while spurring job growth and innovation in the clean energy technology sector. The agency also committed to perform, in coordination with NHTSA and the California Air Resources Board (CARB), a Midterm Evaluation of the Model Year 2022-2025 light-duty GHG standards. To support the Midterm Evaluation, in FY 2016 the agency is performing a comprehensive feasibility evaluation of advanced technologies.

As the nation prepares for and responds to the impacts of a changing climate, communities face a host of challenges such as rising sea levels, droughts, wildfires, and extreme weather events. Local communities will need substantial support and guidance in order to adapt to these new realities. In FY 2016, the agency will be supported by 20 FTE serving as Community Resource Coordinators working cross-media to provide on-the-ground technical assistance to multiple communities, including working with external partners such as local colleges, universities, non-governmental organizations and others to provide help to local communities as they begin to

assess vulnerabilities, plan for climate change, and implement actions to increase resilience to climate impacts.

Improve Air Quality

In FY 2016 the agency will focus additional resources to address regulatory implementation across the air program. An additional 25.0 FTE for regional air programs are requested to address state implementation plans (SIPs) awaiting processing, permitting needs, and air quality monitoring and analysis. These FTE will help provide states and industry with greater certainty about how to move forward with addressing air pollutants of concern. At a national level, the agency is requesting additional FTE to provide support in targeted areas including regulatory reviews that are statutorily mandated under the Clean Air Act and under legal deadlines, rules and guidance needed by states and industry to implement planning and permitting requirements, implementation of the motor vehicle and engine certification and compliance program, and indoor air technical guidance development.

As highlighted, national standards have a big impact on the quality of the life in local communities. In FY 2016, the agency also continues a strong emphasis on supporting communities in their efforts to combat localized effects of air pollution. Communities do not always have sufficient air quality data at the-local level to understand and act upon existing risks. In FY 2016, the EPA will invest \$1.6 million and 2.5 FTE in funding for advanced monitoring technical support and tools to help communities detect, monitor, understand, and act upon their local air quality risks.

Agency Priority Goals

As part of the EPA's FY 2014-2018 Strategic Plan, the EPA established FY 2014-2015 Agency Priority Goals. The Goal 1 includes APG highlights the EPA's efforts to reduce greenhouse gas emissions from cars and trucks as follows:

Reduce greenhouse gas emissions from cars and trucks. Through September 30, 2015, EPA, in coordination with Department of Transportation's fuel economy standards program, will be implementing vehicle and truck greenhouse gas standards that are projected to reduce greenhouse gas (GHG) emissions by 6 billion metric tons and reduce oil consumption by about 12 billion barrels over the lifetime of the affected vehicles and trucks.

Additional information on the EPA's Agency Priority Goals can be found at www.performance.gov.

FY 2016 Activities

Objective 1: Address Climate Change. Minimize the threats posed by climate change by reducing greenhouse gas emissions and taking actions that help to protect human health and help communities and ecosystems become more sustainable and resilient to the effects of climate change.

The EPA's strategy to address climate change supports the President's GHG reduction goals. Climate change poses risks to public health, the environment, cultural resources, the economy, and quality of life. Many impacts of climate change are already evident and will intensify in the future. NOAA/NASA announced on January 16, 2015 on nasa.gov that 2014 was the hottest year on record.

The agency's budget includes \$214 million to support regulatory activities and partnership programs to reduce GHG emissions domestically and internationally. In FY 2016, the agency will focus on a number of significant activities including:

- Working with states to implement the Clean Power Plan carbon dioxide (CO₂) emission standards for existing power plants, including direct technical assistance and funding to support development of state plans.
- Finalizing a second phase of heavy-duty vehicle GHG regulations that incorporates a wider range of advanced technologies, including hybrid vehicle drive trains, and also exploring options to reduce emissions from a wide range of nonroad equipment, locomotives, aircraft, and transportation fuels.
- Prioritizing and reviewing low GWP options for use in consumer and industrial use sectors under SNAP, while considering existing listings that may require reassessment based on the advent of new, more environmentally friendly options. Work in FY 2016 will involve continued SNAP listings, rulemakings, and technical support for stakeholders and innovative firms with new alternatives.
- Working with stakeholders on measures that will reduce emissions of GHG from the oil and gas production industry.
- Supporting reporting and verification in the GHG Reporting Program of emissions across 41 industry sectors and emission sources and approximately 8,000 reporters.
- Leading the Global Methane Initiative (GMI) and enhancing public-private sector cooperation to reduce global methane emissions and deliver clean energy to markets.
- Implementing the ENERGY STAR program and other greenhouse gas reduction partnership programs such as SmartWay Transport across the residential, commercial, industrial, and transportation sectors.
- Overseeing compliance with the revised vehicle fuel economy labeling requirements, which provide consumers with GHG as well as fuel economy information. The new label enables consumers to compare the energy and environmental impacts of both traditionally- and alternatively-fueled vehicles, including those using renewable fuels, gaseous fuels, and electricity.
- Continuing to implement the new Renewable Fuel Standards (RFS2) program and carrying out other actions required by the Energy Policy Act (EPAAct) of 2005 and the Energy Independence and Security Act (EISA) of 2007.

- Supporting implementation and compliance with GHG emission standards for light-duty and heavy-duty vehicles and the National Highway and Transportation Safety Administration's (NHTSA) Corporate Average Fuel Economy (CAFE) standards. Under the CAA and the Energy Policy Act, the EPA is responsible for issuing certificates and ensuring compliance with both the GHG and CAFE standards.

Objective 2: Improve Air Quality. *Achieve and maintain health and welfare based air pollution standards and reduce risk from toxic air pollutants and indoor air contaminants.*

Clean Air

In FY 2016, the EPA will continue its CAA prescribed responsibilities to administer the National Ambient Air Quality Standards (NAAQS). The NAAQS help improve air quality and reduce related health and welfare impacts and their costs to the nation. The EPA will continue to implement a strategy that, where appropriate, supports the development and evaluation of multiple pollutant measurements.

In FY 2016, the EPA will continue its reviews of the NAAQS in accordance with the statutory mandate to review the standards every five years, and make revisions, as appropriate. In particular, the EPA will finalize its review of the ozone NAAQS in early FY 2016. The EPA will provide technical and policy assistance to states and tribes developing or revising attainment SIPs and Tribal Implementation Plans (TIPs) and will designate areas as attainment or nonattainment, as appropriate. The agency also will continue efforts to reduce the number of backlogged SIPs and to act on incoming SIPs within the Clean Air Act Amendments of 1990 (CAAA) mandated timeframe.

The EPA will continue to partner with states, tribes, and local governments to ensure progress toward air quality improvement objectives, including consideration of environmental justice issues. The budget includes robust funding levels for state and local air quality management grants to support core state workload for implementing NAAQS, reducing exposure to air toxics to ensure improved air quality in communities, and for additional air monitors required by revised NAAQS. The EPA will provide technical and policy assistance to states developing or revising SIPs or regional haze implementation plans and will continue to review and act on SIP submissions in accordance with the CAAA. Ongoing technical assistance to state, Tribal and local agencies to support these objectives includes source characterization analyses, emission inventories, quality assurance protocols, improved testing and monitoring techniques, and air quality modeling. The EPA also will work with the states to address the interstate transport of pollution that contributes to nonattainment or interferes with maintaining ozone and/or PM NAAQS in other areas.

In FY 2016, the EPA will use its upgraded vehicle, engine, and fuel testing capabilities at the National Vehicle and Fuel Emissions Laboratory (NVFEL) to increase testing and certification capacity to ensure that new vehicles, engines, and fuels are in compliance with new vehicle and fuel standards. The agency is responsible for establishing test procedures to estimate the fuel economy of new vehicles and for verifying car manufacturers' data on fuel economy. The EPA anticipates reviewing and approving more than 5,000 vehicle and engine emissions certification

requests for over 4,100 different types of engines – a workload that has quadrupled over the past decade. The EPA’s workload will continue to grow as the agency begins to implement new, and more stringent, GHG emission standards promulgated in 2012 and 2013 for additional classes of vehicles and engines.

Air Toxics

The agency will continue to work with state, tribal, and local air pollution control agencies and community groups to assess and address air toxics emissions in areas of greatest concern.

One of the top priorities for the air toxics program is to eliminate unacceptable health risks and exposures to air toxics in affected communities and to fulfill its CAAA and court-ordered obligations. The CAAA requires that all technology-based emission standards be reviewed and updated as necessary every eight years. In FY 2016, the EPA will continue to conduct technology reviews and risk assessments to determine whether the technology-based rules appropriately protect public health to comply with legal deadlines.

The EPA will continue development of its multi-pollutant efforts by constructing and organizing analyses around industrial sectors. By addressing individual sectors’ emissions comprehensively and prioritizing regulatory efforts on the pollutants of greatest concern, the EPA will continue to identify ways to take advantage of the co-benefits of pollution control. In developing sector and multi-pollutant approaches, the agency seeks innovative solutions that address pollutants in the various sectors and minimize costs to the EPA, states, tribes, local governments and the regulated community.

The EPA will continue to improve the dissemination of information to state, tribal, and local governments, and the public, using analytical tools such as the National Air Toxics Assessments (NATA), enhancing quantitative assessment tools such as BenMAP, and improving emission inventory estimates for toxic air pollutants. The EPA anticipates that these improvements will increase the agency’s ability to meet aggressive court-ordered schedules to complete rulemaking activities, especially in the air toxics program.

Indoor Air

The EPA will continue to build the capacity of community-based organizations to promote comprehensive asthma care that integrates management of environmental asthma triggers and health care services. The EPA will place a particular emphasis on improving asthma health outcomes for vulnerable populations, including children, and low-income and minority populations as well as improving indoor air quality (IAQ) in homes and schools. Over the past four years, at least 16,000 health care professionals, including school nurses and primary care physicians, have been trained by the EPA and its partners on environmental management of asthma triggers. Additionally, approximately one third of our nation’s schools now have effective indoor air quality management programs in place, helping to ensure asthma-friendly school environments. The EPA will continue to co-lead the implementation of the Coordinated Federal Action Plan to Reduce Racial and Ethnic Asthma Disparities, an initiative under the

auspices of the President's Taskforce on Environmental Health Risks and Safety Risks to Children.

The EPA will deliver clear and verifiable protocols and specifications to ensure good indoor air quality in homes and schools. This effort will be accomplished through the Indoor airPLUS program and protocols that protect IAQ during energy upgrades. The EPA will collaborate with public and private organizations to integrate these protocols and specifications into existing energy-efficiency, green-building and health-related programs and initiatives. FY 2016 activities include equipping the affordable housing sector with training and guidance to promote adoption of these best practices with the aim of creating healthier, more energy-efficient homes for low income families.

In FY 2016, the EPA will continue its leadership role and collaborate with other federal agencies to advance action on radon risk reduction, and will continue to implement its own multi-pronged radon program. The EPA will drive action at the national level to reduce radon risk in homes and schools using partnerships with the private sector and public health groups, public outreach, and education activities. The agency will encourage radon risk reduction as a normal part of doing business in the real estate marketplace, will promote local and state adoption of radon prevention standards in building codes, and will participate in the development of national voluntary standards (e.g., mitigation and construction protocols) for adoption by states and the radon industry.

Objective 3: Restore and Protect the Ozone Layer. *Restore and protect the earth's stratospheric ozone layer and protect the public from the harmful effects of ultraviolet (UV) radiation.*

Restore the Ozone Layer

The stratospheric ozone program implements the provisions of the CAAA and the *Montreal Protocol on Substances that Deplete the Ozone Layer* (Montreal Protocol). Under the CAAA and the Montreal Protocol, the EPA is authorized to control and reduce ozone depleting substances (ODS) in the U.S., and to contribute to the Montreal Protocol Multilateral Fund. As of January 1, 2015, ODS production and imports will be capped at 1,524 ODP-weighted metric tons, which is 10 percent of the U.S. baseline under the Montreal Protocol. In 2020, all production and import will be phased out except for exempted amounts. As ODS and many of their substitutes are potent GHGs, appropriate control and reduction of these substances also provides significant benefits for climate protection. As a signatory to the Montreal Protocol, the U.S. is committed to ensuring that our domestic program is at least as stringent as international obligations and to regulating and enforcing its terms domestically. In FY 2016, the EPA will focus its work to ensure that ODS production and import caps under the Montreal Protocol and CAAA continue to be met.

During the course of its high level strategic review of the agency's 13 strategic objectives in FY 2014, the EPA, in consultation with the Office of Management and Budget, identified this objective as making noteworthy progress. While the EPA has been successful in reaching its targets under this objective, much work remains to be done – importantly, balancing the need for

flexibility and specific tailored solutions to unique situations with the obligation to completely phase out entire classes of widely used chemicals.

Objective 4: Minimize Exposure to Radiation. *Minimize releases of radioactive material and be prepared to minimize exposure through response and recovery actions should unavoidable releases occur.*

In FY 2016, the EPA's Radiation program, in cooperation with federal agencies, states, tribes, and international radiation protection organizations, will develop and use voluntary and regulatory programs, public information, and training to protect the public from unnecessary exposures to radiation. The EPA expects to complete its review of the public comment received on the 2016 proposed revisions to the Agency's Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings (40 CFR 192), last reviewed in 1995. The Agency also expects to issue its final rule for the related Hazardous Air Pollutants, Subpart W Standard for Radon Emissions from Operating Uranium Mill Tailings (40 CFR 61) and will work to ensure that the nation has broad based, non-site-specific standards that protect public health and the environment from risks associated with subsurface disposal of high-level radioactive waste.

The EPA's Radiological Emergency Response Team will maintain and improve the level of readiness to support federal radiological emergency response and recovery operations under the National Response Framework and the National Oil and Hazardous Substances Pollution Contingency Plan in FY 2016. RadNet, the agency's national ambient radiation air monitoring system, will continue to provide data from the country's 100 most populous cities to assist in protective action determinations. The EPA will continue to support waste site characterization and clean-up by providing field and fixed laboratory environmental radioanalytical data and technical support, delivering radioanalytical training to state and federal partners, and developing improved radioanalytical methods.

In FY 2016, the EPA will continue to implement its regulatory oversight responsibilities for Department of Energy (DOE) activities at the Waste Isolation Pilot Plant (WIPP) facility, as mandated by Congress in the WIPP Land Withdrawal Act of 1992. This includes conducting inspections of waste generator facilities and evaluating DOE's compliance with the EPA's standards and applicable environmental laws and regulations to ensure the permanent and safe disposal of all radioactive waste shipped to WIPP.

Research

Environmental challenges in the 21st century are complex. These challenges are complicated by the interplay between air quality, climate change, and emerging energy options, and they require different thinking and solutions than those used in the past. These solutions require research that transcends disciplinary lines and includes all stakeholders in the process -- the EPA's regional and program offices, states and communities -- that rely on the EPA's research.

The Air, Climate and Energy (ACE) research program, funded at \$100.3 million for FY 2016, conducts high priority research on environmental and human health impacts related to air

pollution, climate change, and biofuels. This work directly supports the EPA's goal of addressing climate change and improving air quality.

Human exposure to an evolving array of air pollutants is a considerable challenge. By integrating air, climate, and energy research, the EPA can better understand, define, and address the complexity of these interactions. The agency will provide models and tools necessary for communities and decision makers at all levels of government to make the best decisions.

The ACE research program will continue to address critical science questions under three major research themes.

Theme 1: Assess Air Quality and Climate Impacts – Assess human and ecosystem exposures and effects associated with air pollutants and climate change. Evaluate the effects of air pollution and climate change on individuals, ecosystems, communities, and regions.

Theme 2: Prevent and Reduce Emissions – Provide the science needed to develop and evaluate approaches to preventing and reducing harmful air emissions. Decision makers and other stakeholders need such data and methods to determine which energy choices are most environmentally and economically appropriate.

Theme 3: Respond to Changes in Climate and Air Quality – Provide modeling and monitoring tools, metrics, and information on air pollution exposure. Individuals, communities, and governmental agencies will use these tools and information to make public health decisions related to air quality and climate change.

In FY 2016, the ACE program will continue to develop and evaluate source and ambient air monitoring methods required to support implementation of regulations. Demand for improved air monitoring data is growing while budgets for state and local air monitoring organizations are shrinking. The EPA also is working with the National Aeronautics and Space Administration (NASA) to examine how satellites may be used to improve air quality management activities.

In addition, in 2012, the EPA signed a Memorandum of Agreement (MOA) with the DOE and DOI to develop a multi-agency program to focus on timely, policy relevant science to support sound policy decisions by state and federal agencies for ensuring the prudent development of energy sources while protecting human health and the environment. Additional goals include minimizing potential risks in developing these energy resources, maximizing each agency's particular strength, and reducing interagency overlap.

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

Goal 2: Protecting America's Waters

Protect and restore waters to ensure that drinking water is safe and sustainably managed, and that aquatic ecosystems sustain fish, plants, wildlife, and other biota, as well as economic, recreational, and subsistence activities.

STRATEGIC OBJECTIVES:

- Protect, restore, and sustain the quality of rivers, lakes, streams, and wetlands on a watershed basis, and sustainably manage and protect coastal and ocean resources and ecosystems.
- Achieve and maintain standards and guidelines protective of human health in drinking water supplies, fish, shellfish, and recreational waters, and protect and sustainably manage drinking water resources.

GOAL, OBJECTIVE SUMMARY

Budget Authority
Full-time Equivalent
(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Protecting America's Waters	\$4,121,953.5	\$4,053,297.9	\$4,053,367.5	\$69.6
Protect and Restore Watersheds and Aquatic Ecosystems	\$2,862,878.2	\$2,784,486.5	\$2,480,116.8	(\$304,369.7)
Protect Human Health	\$1,259,075.3	\$1,268,811.5	\$1,573,250.7	\$304,439.2
Total Authorized Workyears	3,154.5	3,160.6	3,156.0	-4.6

Goal 2: Protecting America's Waters

Strategic Goal: *Protect and restore our waters to ensure that drinking water is safe and sustainably managed, and that aquatic ecosystems sustain fish, plants, wildlife, and other biota, as well as economic, recreational, and subsistence activities.*

Introduction

As we work to protect the nation's water, new approaches and new partnerships are needed to make and sustain improvements. While much progress in water quality has been made over the last two decades, America's waters remain imperiled. Increased demands, land use practices, population growth, aging infrastructure, and the impacts of climate change pose serious challenges to our nation's water resources. The National Coastal Condition Report IV shows that although improvement has taken place since 1990, the overall condition of the nation's coastal resources continues to be rated fair⁷. In addition, the latest national assessments⁸ confirm that America's waters are stressed by nutrient pollution, excess sedimentation, and degradation of shoreline vegetation, which affect more than 50 percent of our lakes and streams. The rate at which new waters are listed for water quality impairments exceeds the pace at which restored waters are removed from the list. For many years, nonpoint source pollution—principally nitrogen, phosphorus, and sediments—has been recognized as the largest remaining impediment to improving water quality, and it is difficult to address the varied and widespread sources of this pollution. Pollution discharged from industrial, municipal, and other point sources continue to cause a decline in the quality of our waters. Other significant contributors to degraded water quality include: loss of habitat; habitat fragmentation; and changes in the way water is infiltrated into soils, runs off the land, and flows down streams (hydrologic alteration).

We can no longer rely on traditional tools and approaches to protect our waters in urban and rural settings. We are focusing on developing new targeting tools, promoting green infrastructure and sustainable solutions and building resiliency to deal with the impacts from climate change, and strengthening our partnerships with federal agencies, non-government organizations and private companies committed to supporting local efforts to improve and protect waterways. From nutrient loadings and stormwater runoff, to invasive species, energy extraction, and drinking water contaminants, water quality programs face complex challenges that can be addressed effectively only through a combination of traditional and innovative strategies. The EPA will continue to work hand-in-hand with states and tribes to develop and implement nutrient limits and intensify our work to restore and protect the quality of the nation's streams, rivers, lakes, bays, oceans, and aquifers. We will continue the increased focus on urban and rural communities, particularly those disadvantaged communities facing disproportionate impacts, or that have been historically underserved. We also will use our authority to protect and restore threatened natural treasures such as the Great Lakes, the Chesapeake Bay, and the Gulf of

⁷ U.S. EPA. 2012. *National Coastal Condition Report IV*. EPA-842-R-10-003. Available at <http://water.epa.gov/type/oceb/assessmentmonitor/nccr/upload/NCCR4-Report.pdf>.

⁸ U.S. EPA, 2006. *Wadeable Streams Assessment: A Collaborative Survey of the Nation's Streams*. EPA 841-B-06-002. Available at <http://www.epa.gov/owow/streamsurvey>. See also EPA, 2010. *National Lakes Assessment: A Collaborative Survey of the Nation's Lakes*. EPA 841-R-09-001. Available at http://www.epa.gov/lakessurvey/pdf/nla_chapter0.pdf.

Mexico; address our neglected urban rivers; ensure safe drinking water; and reduce pollution from nonpoint and industrial discharges. The EPA will continue to address post-construction runoff, water-quality impairments, and drinking water contamination.

As part of the agency's long-term strategy, the EPA is implementing a Sustainable Water Infrastructure Policy⁹ that focuses on working with states and communities to significantly expand more effective management and enhance technical, managerial and financial capacity within the drinking water and wastewater sectors. Important to the enhanced technical capacity will be alternatives analyses to expand green infrastructure options and their multiple benefits. Federal dollars provided through the State Revolving Funds will act as a catalyst for efficient system-wide planning and ongoing management of sustainable water infrastructure.

The EPA will strengthen instrumental partnerships across the Federal government to leverage resources and avoid duplication of efforts. The EPA and USDA continue to enhance existing coordination efforts in reducing nonpoint source pollution. The EPA, DOI, and DOE are working together to research the impacts of hydraulic fracturing activities to support the state and Federal agencies that oversee this growing energy extraction method.

Major FY 2016 Changes

Goal 2 resources include over \$3.4 billion in extramural resources and 2,324.9 FTE. Resources and FTE have been targeted to build on progress to date and advance the Agency priorities in FY 2016. Funding for the categorical grants to states to support core environmental programs in Goal 2 is \$554 million, a \$27 million increase over the FY 2015 Enacted Budget¹⁰. In FY 2016, the agency is requesting \$2.3 billion for the Clean Water and Drinking Water State Revolving Funds (SRFs), a decrease of \$54 million in funding from FY 2015 enacted levels, but supported by additional funding through EPA's surface water and drinking water programs as described below.

In Goal 2 the FY 2016 President's Budget includes resources in three major investment areas: Sustainable Water Systems, Climate Mitigation and Communities.

Sustainable Water Systems

In FY 2016, the agency's budget includes \$50 million in technical assistance, training, and other efforts to enhance the capacity of communities and states to plan and finance drinking water and wastewater infrastructure improvements. EPA will work with states and

Community Highlight: Douglas, AZ

To mitigate increasing energy costs, the City of Douglas obtained a \$1.3 million loan (June 2014) from Arizona's SRF Program to design and install a 300 kW solar system to power their wastewater treatment plant. The solar array is projected to generate nearly 520,000 kilowatt hours of electricity per year, or 50% of the plant's electric requirements. Once installed, Douglas estimates they will save \$32,000 per year in energy costs

⁹ <http://water.epa.gov/infrastructure/sustain/upload/Sustainability-Policy.pdf>

¹⁰ \$5.6 million increase for Nonpoint Source (Sec. 319); \$7.7 million increase for Public Water System Supervision; \$18.4 million increase for Pollution Control (Section 106); \$5.0 million increase for Wetlands Program Development grants; \$9.6 million reduction for Beaches categorical grants.

communities to promote innovative practices that advance water system and community resiliency and sustainability. These resources will build the technical, managerial, and financial capabilities of systems, to promote a healthy and effective network of drinking water and wastewater infrastructure.

The Water Infrastructure Finance and Innovation Act of 2014 (WIFIA) authorizes an innovative financing mechanism for water-related infrastructure of national or regional significance and authorizes the EPA to provide federal credit assistance to eligible entities. In FY 2016, the agency budget includes \$5 million to begin developing the information necessary to lay the groundwork for a WIFIA program. WIFIA creates a 5- year pilot program for water infrastructure investment and provides low-interest loans to eligible entities for large water and wastewater projects. In addition to the existing State Revolving Fund programs, WIFIA will provide an additional source of low cost capital to help meet the United States' water infrastructure needs and address key priorities. Beginning in FY 2015 and continuing into FY 2016, the EPA will conduct the significant work of developing a WIFIA program. The Agency's FY 2016 budget request will continue the development and start-up of the program.

Climate Mitigation

Recent improvements in scientific measurement of carbon sequestered in coastal wetlands indicate that preservation and restoration of coastal wetlands can have significant greenhouse gas reduction benefits¹¹, while also reducing storm impacts on coastal areas and enhancing habitat and water quality. The existing National Estuary Programs are excellent candidates for developing these “blue carbon” opportunities. The EPA will work with NEPs to identify and support key coastal restoration projects that can serve as pilot projects featuring different natural features and characteristics to study and enhance coastal resilience.

Communities

Goal 2 will be supported by EPA's new Community Resource Coordinators. These Coordinators are a team of 20 FTE who will work cross-media to provide on the ground technical assistance to multiple communities, including helping to improve community adaptation and resiliency in the face of climate change and extreme weather events.

The agency also provides \$1.1 million and 2.5 FTE for Advanced Monitoring to assist communities through the use of monitoring technology by providing technical assistance and support through existing mechanisms and by building partnerships with external organizations to support environmental education and citizen science. Communities are increasingly asking questions about the health of their waterways and what they can do to improve them. By developing interactive web tools that describe water quality monitoring data using understandable indicators, this proposal will help demonstration communities answer these

¹¹ Crooks, S., Rybczyk, J., O'Connell, K., Devier, D.L., Poppe, K., Emmett-Mattox, S. 2014. *Coastal Blue Carbon Opportunity Assessment for the Snohomish Estuary: The Climate Benefits of Estuary Restoration*. Report by Environmental Science Associates, Western Washington University, EarthCorps, and Restore America's Estuaries. February 2014.

questions and enhance their understanding of how they can better protect their waters.

The investments in Community activities focus resources and programs to better support the efforts of environmentally overburdened, underserved, and economically distressed communities. These efforts will proactively address endemic and emerging environmental challenges in ways that build a community's long-term sustainability. The EPA will deliver information and on-going support in ways that maximize alignment and leverage scarce resources to make a visible difference in communities as they address environmental challenges, especially those exacerbated by climate change.

Agency Priority Goals

In FY 2016, the EPA will continue to build on progress under FY 2014-2015, Agency Priority Goals for the Water program that advance the agency priorities and the agency's Strategic Plan. The EPA's two Priority Goals to improve water quality are:

Improve, restore, and maintain water quality by enhancing nonpoint source program leveraging, accountability, and on-the-ground effectiveness to address the nation's largest sources of pollution. By September 30, 2015, 100 percent of the states will have updated nonpoint source management programs that comport with the new Section 319 grant guidelines that will result in better targeting of resources through prioritization and increased coordination with USDA.

Improve public health protection for persons served by small drinking water systems, which account for more than 97% of public water systems in the U.S., by strengthening the technical, managerial, and financial capacity of those systems. By September 30, 2015, EPA will engage with an additional ten states (for a total of 30 states) and three tribes to improve small drinking water system capability to provide safe drinking water, an invaluable resource.

Additional information on the EPA's Agency Priority Goals can be found at www.performance.gov.

FY 2016 Activities

The EPA will continue to emphasize watershed stewardship, watershed-based approaches, water efficiencies, and best practices. In addition, the EPA will continue to implement its core water programs to maximize efficiencies and environmental results.

Objective 1: Protect Human Health. *Achieve and maintain standards and guidelines protective of human health in drinking water supplies, fish, shellfish, and recreational waters and protect and sustainably manage drinking water resources.*

Drinking Water

To help achieve the agency's priority to protect America's waters, in FY 2016 the EPA will continue to implement its Drinking Water Strategy, an approach to expanding public health protection for drinking water. The EPA's goal is to streamline decision-making, expand protection under existing laws, and promote cost-effective new technologies to meet the needs of

rural, urban and other water-stressed communities. The agency will focus on regulating groups of drinking water contaminants, improving water treatment technology and expanding communication with states, tribes and urban and rural communities.

In FY 2016, the EPA will continue to provide Public Water System Supervision (PWSS) grants to augment state and tribal efforts to assist water systems in meeting existing drinking water regulations and prepare for implementation of new regulations, including the Revised Total Coliform Rule. States and tribes will work to support systems to acquire and maintain basic implementation capabilities and to conduct sanitary surveys according to required schedules. These resources also will be used by states and tribes as they provide technical assistance and training to help meet the continued needs of the small water systems. The grants have been successful in helping public water systems achieve compliance with standards, as well as decreasing the number of small systems that have repeat health-based violations of standards. As of the end of FY 2014, 93 percent of the population served by community water systems (CWSs) received drinking water that met all applicable health-based drinking water standards, which exceeded the performance target of 92 percent.

To help ensure water is safe to drink and to address the nation's aging drinking water infrastructure, \$1,186 million for the Drinking Water State Revolving Fund will support new infrastructure improvement projects for public drinking water systems in FY 2016 and beyond. Getting these funds to where they are most needed in a timely manner is important. In FY 2016, appropriated DWSRF funds will again be allocated to the states in accordance with each state's proportion of total drinking water infrastructure need based on the 2011 Needs Survey which was reported to Congress in April 2013¹². The EPA also published data concerning the drinking water infrastructure needs of water systems serving tribes and Alaskan Native Villages as a special focus of this survey.

These funds have been utilized effectively by the states. Since FY 2006, the fund utilization rate¹³ for the DWSRF has surpassed its performance target, and most recently in FY 2014, the DWSRF utilization rate of 92 percent exceeded the EPA's target of 89 percent. In concert with the states, the EPA will focus this affordable, flexible financial assistance to support utility compliance with safe drinking water standards. The EPA has requested a funding floor for assistance provided to Tribes, and will reserve the greater of \$20 million or 2% of appropriated funds for the Indian Tribes and Alaska Native Villages. The EPA also will work with utilities to promote technical, financial, and managerial capacity as a critical means to meeting infrastructure needs and enhancing program performance and efficiency.

The responsibility for communities and public water systems to continuously provide safe drinking water is a key component of the nation's health and well-being. The delivery of safe drinking water is often taken for granted and is extremely undervalued. More than 156,000 public water systems provide drinking water to the approximately 320 million persons in the

¹² Drinking Water Infrastructure Needs Survey and Assessment. April 2013.
http://water.epa.gov/grants_funding/dwsrf/upload/epa816r13006.pdf

¹³ Utilization rate is the cumulative dollar amount of loan agreements divided by cumulative funds available for projects. Cumulative funds available include the federal capitalization grant portion and everything that is in the SRF (state match, interest payments, etc.).

U.S. More than 97% of these public water systems serve fewer than 10,000 persons. While most small systems consistently provide safe, reliable drinking water to their customers, many small systems are facing a number of significant challenges in their ability to achieve and maintain system sustainability. These challenges include aging infrastructure, increased regulatory requirements, workforce shortages/high-turnover, increasing costs, and declining rate bases.

The EPA is focusing attention to the needs of these small communities/systems while balancing current fiscal realities as the state grant and state assistance programs are implemented. In FY 2012, the EPA re-energized its small systems focus by working more closely with state programs to improve public water system sustainability and public health protection for persons served by small water systems as part of an Agency Priority Goal. During FY 2014-2015, the EPA built on its successful efforts to strengthen small system technical, managerial and financial capability through the implementation of the Capacity Development Program, the Operator Certification Program, the Public Water System Supervision state grant program and the Drinking Water State Revolving Fund. The Capacity Development Program establishes a framework within which states and water systems can work together to help these small systems achieve the Safe Drinking Water Act's (SDWA's) public health protection objectives. The state Capacity Development programs are supported federally by the Public Water System Supervision state grant funds and the set-asides established in the Drinking Water State Revolving Fund. Since the 1996 SDWA Amendments, states have implemented a variety of activities to assist small systems with their compliance challenges and enhance their technical, managerial, and financial capacity. In FY 2016, the EPA will continue to reinforce with states and tribes the concepts developed during implementation of the FY 2012-2013 and FY 2014-2015 drinking water Agency Priority Goal activities.

Fish Consumption

The EPA continues to increase public awareness of the risks to human health associated with the consumption of fish contaminated with mercury, an effort directly linked to the agency's mission to protect human health. EPA analysis of data from the Centers for Disease Control and Prevention's (CDC's) National Health and Nutrition Examination Survey (NHANES) show that the geometric mean of blood mercury levels decreased by 34 percent in women of childbearing age between the first survey cycle (1999 – 2000) and second survey cycle (2001-2002), and then remained fairly constant between 2003 and 2010. The study also found that there was a 65 percent decrease in the number of women of childbearing age with blood levels of mercury above the level of concern between the first and second survey cycles of NHANES. While the data do not indicate that women are consuming less fish, the analysis suggests that women have reduced their consumption of the types of fish that have higher mercury concentrations. Further information is available in the EPA study published in June 2013 entitled *Trends in Blood Mercury Concentrations and Fish Consumption among U.S. Women of Childbearing Age*.¹⁴

¹⁴<http://water.epa.gov/scitech/swguidance/fishshellfish/fishadvisories/upload/Trends-in-Blood-Mercury-Concentrations-and-Fish-Consumption-Among-U-S-Women-of-Childbearing-Age-NHANES-1999-2010.pdf>

Objective 2: Protect and Restore Watersheds and Aquatic Ecosystems: *Protect, restore, and sustain the quality of rivers, lakes, streams, and wetlands on a watershed basis, and sustainably manage and protect coastal and ocean resources and ecosystems.*

Clean Water

In FY 2016, the EPA will continue to collaborate with states and tribes to make progress toward the EPA's clean water goals. Programs for controlling nonpoint sources of pollution are a key to reducing the number of impaired waters nationwide. The programs provide a multi-faceted approach to the problem, using innovative development strategies to help leverage traditional tools. The EPA will support efforts of states, tribes, other federal agencies, and local communities to develop watershed-based plans to achieve water quality standards. Working with states, the revolving fund capitalization grants will help build, revive, and "green" our aging infrastructure. In FY 2016, funding in categorical grants for clean water programs will enable the EPA, states, and tribes to implement core clean water programs and promising innovations on a watershed basis to accelerate water quality improvements.

In FY 2016, the EPA will continually to forge and strengthen strategic partnerships with other federal agency programs, particular with the USDA's Natural Resources Conservation Service (NRCS), which implements Farm Bill conservation programs that can help control nonpoint source pollution. Agricultural sources of pollution in the form of animal waste, fertilizer, and sediments have a particularly profound effect on water quality. In FY 2016, the EPA will partner with USDA to focus federal resources on agricultural sources of pollution in select watersheds in every state. As part of our joint work, in FY 2014, 174 priority watersheds were selected in 51 states and areas for targeted USDA conservation investments. In FY 2016, the EPA will work with states to assess water quality progress from implemented conservation practices. Progress made under the FY 2014-2015 Agency Priority Goal is important for targeting Section 319 funds (along with state match and other funds) towards the most pressing nonpoint source problems.

Community Highlight: Salmon Falls, ME and NH

EPA participates in the national Source Water Collaborative, a group of 25 national organizations which in 2010 sponsored the Salmon Falls Watershed Collaborative in Maine and New Hampshire. Between 2012 and 2014, the Salmon Falls Collaborative leveraged support from USDA's Environmental Quality Incentives Program (EQIP) and the Wildlife Habitat Incentive Program (WHIP) to achieve the following:

- 5,919 private working lands were treated in the Salmon Falls river watershed
- 37 contracts were awarded to private landowners to implement conservation practices with USDA's Natural Resources Conservation Service (NRCS)
- 130 conservation practices were implemented

The land uses targeted for treatment in the Salmon Falls Watershed included cropland, forestland, pasture and hay land addressing many resource concerns including: erosion and sediment control, groundwater and surface water quality protection, grazing benefits, livestock water needs, nutrient management, healthy forests and invasive treatments, and fish and wildlife habitats.

Building on over 30 years of clean water successes, the EPA, in conjunction with states and tribes, will address the requirements of the Clean Water Act by focusing on two primary tools: Total Maximum Daily Loads¹⁵ (TMDLs) and National Pollutant Discharge Elimination System (NPDES) permits, built upon scientifically sound water quality standards and technology-based pollutant discharge limits. In FY 2016, the CWA 303(d) Listing and TMDL Program will continue to engage with states to implement the new 10-year vision for the program. As part of this effort, the EPA will continue to encourage states to develop a process for setting priorities, and through the use of that process address impairments with TMDLs and other appropriate tools as expeditiously as practical. The EPA will work with states and other partners to develop and implement watershed plans to restore their impaired waters.

The EPA also will work with states and other partners to improve our ability to identify and protect healthy waters/watersheds, and to pursue integration and application of core program tools. An important part of restoring impaired waters is reliable and timely data. As part of an agency-wide effort for modernization, resources have been provided to accelerate implementation of electronic-reporting, which will minimize burden for data entry and error resolution, reduce effort in responding to public requests for data, establish consistent requirements for e-reporting across all states, and allow more timely access to NPDES program data in an electronic format for the EPA, states, regulated entities, and the public.

The EPA will continue to work with states to structure the permit program to better support comprehensive protection of water quality on a waterbody and a watershed basis. Progress has been steady in improving water quality conditions in impaired watersheds nationwide. Reductions in nutrient levels in sources of drinking water reduce treatment costs while strengthening public health protection. In 2008, there were only 60 watersheds that experienced improved water quality conditions, as identified by removal of one or more causes of impairment in 2002. By FY 2014, this number had risen to 411, exceeding the target of 408. Water quality conditions remain a significant challenge, with approximately 42,400 known impaired water bodies nationwide in January 2015. In FY 2016, the EPA will invest in a new approach for measuring local improvements in water quality, resulting in a more transparent and efficient measure of progress and facilitating cross-program integration. This approach will use the USGS National Hydrography Dataset Plus (NHDPlus) to calculate watershed area to describe previously impaired waters where actions are being implemented and are now attaining water quality standards.

In addition, in FY 2016, the EPA will focus on: promoting the use of green infrastructure and water quality-based effluent limits in stormwater permits; controlling discharges from concentrated animal feeding operations; and addressing issues of permitting for new waste streams, such as shale gas extraction and for steam electric power plants. To combat stormwater as a main contributor of nutrients and sediments, the agency issued a final 2012 NPDES general permit for stormwater discharges from large and small construction activities. The general permit strengthens requirements for stormwater discharges from, at minimum, eligible existing and new

¹⁵ For more information, visit: <http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/index.cfm>.

construction projects in all areas of the country where the EPA is the NPDES permitting authority.

The EPA budget includes \$1.116 billion in capitalization to the Clean Water State Revolving Fund (CWSRF). As of June 2014, the CWSRF has offered nearly 35,000 assistance agreements to local communities, providing over \$105 billion in affordable financing for wastewater infrastructure, nonpoint source pollution control, and estuary management projects.

In FY 2016, the agency requests a Tribal set-aside of two percent, or \$30 million, whichever is greatest, of the funds appropriated from the CWSRF. The agency requests the establishment of a funding floor for the Tribes. Resources will provide much needed assistance to these communities where sanitation infrastructure lags behind the rest of the country and may cause significant public health concerns.

The Section 106 Categorical State Grant Program supports prevention and control measures that improve water quality. In F Y 2016, the agency proposes an \$18.4 million increase for the Section 106 program over the FY 2015 Enacted Budget level. This increase is for states and tribes to implement water pollution control programs and strengthen their nutrient management efforts consistent with the EPA's 2011 Framework for state nutrient reduction.

Through the Monitoring and Assessment Partnership, the EPA will work with states to develop and apply innovative and efficient monitoring tools and techniques to optimize availability of high-quality data to support Clean Water Act program needs. This partnership also will expand the use of monitoring data and geospatial tools for water resource protection to set priorities and evaluate effectiveness of water protection. The EPA, states, and tribes will collaborate to conduct field sampling for the 2016 National Wetlands Condition Assessment. In FY 2016, the EPA and states will release the 2013/2014 National Rivers and Streams Assessment for partner and external peer review. The EPA and states will initiate data analysis of the National Coastal Condition Assessment 2015 report. Additionally, in FY 2016, the EPA/State Steering Committee for the National Lakes Assessment will be planning the third lakes survey which will be in the field in calendar year 2017.¹⁶

The EPA, in cooperation with federal, state and tribal governments and other stakeholders, will continue to make progress toward achieving the national goal of no net loss of wetlands under the Clean Water Act Section 404 regulatory program. In FY 2016, the agency is providing \$19.7 million for Wetlands Program Development Grants, including \$5 million for climate resilience efforts as mentioned below. In addition, in FY 2016, the EPA will be working with other federal and state partners to maximize the effectiveness of resources provided through the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act (RESTORE Act) and supporting the Natural Resource Damage Assessment associated with the Deepwater Horizon oil spill to restore the Gulf of Mexico.

Since 2002, approximately 1.4 million acres of habitat have been protected or restored within National Estuary Program study areas. The agency's FY 2016 budget requests \$27.3 million for

¹⁶ National Water Quality Assessment Report. http://www.epa.gov/waters/ir/about_integrated.html

National Estuaries Programs and Coastal Waterways that will enable the protection or restoration of one hundred thousand habitat acres.

In FY 2016, the agency will continue to assist communities, particularly underserved communities, to support local efforts to restore and protect the quality of their urban waters. The EPA will implement its Urban Waters program and will continue to co-lead the Urban Waters Federal Partnership. The Urban Water Federal Partnership will provide technical assistance to the 19 Partnership locations and will continue to align federal resources from the EPA, DOI, USDA and other partners to meet local needs more effectively and advance shared multi-agency priorities. For example, the partnership will help address storm water management and promote green infrastructure to improve water quality through identification and transfer of best practices and successful local approaches. The Partnership will continue to identify and champion innovative approaches to making the delivery of Federal resources to communities more effective and integrated.

As part of these efforts, the EPA will assist communities in restoring and revitalizing urban waterways and the surrounding land through partnerships with governmental, business, community organizations and other local partners. Areas of focus may include: water quality restoration as a driver for economic development, human health and related risk communication, climate resiliency efforts such as green infrastructure solutions to integrate water quality and community development goals, youth engagement, education and outreach, planning for sustainable financing, technical support, and training. In FY 2016, the EPA will support place-based work by providing small grants and targeted technical assistance to support innovative community-driven solutions that accelerate measurable improvements in water quality and continuing to provide technical assistance and networking support through the EPA's Urban Waters Learning Network.

- Providing small grants and targeted technical assistance to support innovative community-driven solutions that accelerate measurable improvements in water quality. Projects may include: community greening and green infrastructure, community-driven water quality monitoring and data collection, and community planning and visioning.
- Continuing to provide technical assistance and networking support through the EPA's Urban Waters Learning Network, a peer-to-peer network of urban waters practitioners across the country. Resources developed through this network will be made available nationally, thus effectively up scaling EPA's activities with communities and leveraging the program's place-based efforts for greater national impact.

Climate Change- Management of Sustainable Resources

Climate change contributes to changes in water quality and poses significant challenges to water resource managers. Impacts of climate change include too little water in some places and too much water in others, while some locations are subject to both of these conditions during different times of the year. Water cycle changes are expected to continue and will adversely affect energy production and use, human health, transportation, agriculture, and ecosystems. In 2012, the National Water Program published the second *National Water Program 2012 Strategy*:

Response to Climate Change, which describes a set of long-term goals for the management of sustainable water resources for future generations in light of climate change and charts the key “building blocks” that will need to be taken to achieve those goals. It also reflects the wider context of climate change-related activity that is underway throughout the nation. The *2012 Strategy* is intended to be a roadmap to guide future programmatic planning.

WaterSense, Climate Ready Estuaries, Climate Ready Water Utilities, and Green Infrastructure are examples of programs that will help stakeholders adapt to climate change in FY 2016. The Climate Ready Water Utilities initiative will help water systems of all sizes integrate climate variability considerations into their long-range planning. Efforts to incorporate climate change considerations into key programs will help protect water quality and the nation’s investment in drinking water and wastewater treatment infrastructure. In FY 2016, the EPA has requested an additional \$5 million for grants awarded competitively for efforts to increase climate resilience by protecting and enhancing wetlands.

The WaterSense program is a key component of the Agency’s efforts to ensure long-term sustainable water infrastructure, contribute to GHG reductions, and help communities adapt to drought and climate change. Based on the number of water-conserving products shipped through the end of 2013 (the most recent year for which there is data), the program has contributed to cumulative savings in excess of 757 billion gallons of water – enough water to supply all the homes in the United States for 26 days – and \$14.2 billion in water, sewer, and energy bills. The energy savings associated with reducing the need to move, treat, and heat that water is equivalent to 37 MMTCO₂E of greenhouse gas reductions.

Geographic Water Programs

The Administration has expanded and enhanced numerous cross-agency efforts to promote collaboration and coordination among agencies, which include a suite of large aquatic ecosystem restoration efforts. Four prominent examples of cross-agency restoration efforts are the Puget Sound, the Great Lakes, the Chesapeake Bay, and the Gulf of Mexico. Working with its partners and stakeholders, the EPA implements special programs to protect and restore each of these unique natural resources.

The EPA’s ecosystem protection programs encompass a wide range of approaches that address specific at-risk regional areas and larger categories of threatened systems, such as urban waters, estuaries, and wetlands. Locally generated pollution, combined with pollution carried by rivers and streams and through air deposition, can accumulate in these ecosystems and degrade them over time. The EPA and its federal partners, along with states, tribes, municipalities, and private parties, will continue efforts to restore the integrity of these waters.

Puget Sound:

The Puget Sound program’s FY 2016 budget request of \$30.0 million will allow the EPA to continue supporting efforts to protect and restore the Puget Sound by implementing the Puget Sound Action Agenda. The Action Agenda emphasizes three areas: shellfish, stormwater, and habitat. The goal is for the estuary to support balanced indigenous populations of shellfish, fish and wildlife, and the extensive list of recognized uses of the Puget Sound, as well as to meet obligations under federal tribal treaties.

In 2016, the Puget Sound program will focus federal resources to accelerate the protection and restoration of riparian areas that are important habitat for endangered salmon stocks. The EPA provides leadership for the Puget Sound Federal Caucus and co-chairs the overall federal effort to address Treaty Rights at Risk¹⁷. The EPA addresses its obligations under federal Tribal treaties by funding Puget Sound projects that support treaty-protected resources such as indigenous populations of shellfish, fish and other wildlife. The EPA's emphasis on these areas in implementing its actions in the Federal Habitat Plan and participating in the Tribal-Federal Habitat Forum demonstrate its commitment to Tribal concerns in Puget Sound. In 2016, the EPA will coordinate closely with the National Oceanic and Atmospheric Administration and USDA's Natural Resources Conservation Service to accelerate riparian protection and restoration. Additionally, the EPA will continue to provide leadership for the Puget Sound Federal Caucus, facilitating coordination of Puget Sound work among the larger group of federal agencies in the Puget Sound basin.

Great Lakes:

In FY 2016, \$250 million in funding for the EPA-led Great Lakes Restoration Initiative will address priority environmental issues (e.g., toxic substances, nonpoint source pollution, habitat degradation and loss, and invasive species) in the largest freshwater system in the world. This carefully coordinated interagency effort involves the cooperation of 16 federal agency partners and continues efforts under the second year of a new action plan. This effort has contributed to the removal of 42 Beneficial Use Impairments at 17 different Great Lakes Areas of Concern – four times the number of Beneficial Use Impairments removed in the preceding 22 years.

The EPA will continue progress towards public and environmental health through both federal projects and projects conducted in collaboration with states, tribes, municipalities, universities, and other organizations. The EPA will continue remediating and restoring Areas of Concern, preventing and controlling invasive species, protecting nearshore areas and addressing nonpoint sources of pollution, protecting and restoring habitats and species, and addressing other issues, such as implementing a science-based adaptive management framework and incorporating climate resiliency criteria in project selection processes.

The EPA will place a priority on: 1) cleaning up and de-listing Areas of Concern; 2) reducing phosphorus contributions from agricultural and urban lands that contribute to harmful algal blooms and other water quality impairments; and 3) invasive species prevention. Expected outcomes include completing management actions at additional Areas of Concern and delisting one or more Areas of Concern; reduction or control of terrestrial invasive species on an additional 10,000 acres; phosphorus reductions from targeting sources of excess nutrients in sub-watersheds of the western basin of Lake Erie, Saginaw Bay on Lake Huron, and Green Bay on Lake Michigan; and protection or restoration of 28,000 acres of Great Lakes habitats.

Chesapeake Bay:

The Chesapeake Bay Program is funded in FY 2016 at \$70 million which will allow the EPA-led inter-agency Federal Leadership Committee to continue to implement the President's Executive

¹⁷For more information, visit: <http://nwifc.org/w/wp-content/uploads/downloads/2011/08/whitepaper628finalpdf.pdf>

Order (EO) on Chesapeake Bay Protection and Restoration, to meet the EPA's broad responsibilities under Clean Water Act Section 117. Most of the EPA's direct efforts will focus on development and implementation of the management strategies under the new Bay Watershed Agreement, which was signed in June 2014 and which builds on previous coordination under the EO. The agreement establishes 10 goals and 29 outcomes for sustainable fisheries, water quality, vital habitats, climate change, toxic contaminants, and other areas consistent with the EO. The EPA and its federal partners will work with the Bay watershed jurisdictions to develop and implement management strategies for all of the outcomes. The EPA will also continue its oversight of the Chesapeake Bay Total Maximum Daily Load (TMDL) and its support for the Bay watershed jurisdictions as they implement their Watershed Implementation Plans (WIPs). The EPA will continue its close work with the jurisdictions and thousands of local governments by providing financial support and technical guidance to effectively implement the TMDL. The EPA also will continue implementation of a basin-wide Best Management Practice verification framework. In addition, the EPA will continue refining and improving the publicly available web-based accountability tools *ChesapeakeStat* and the Bay Tracking and Accounting System (BayTAS).

FY 2016 continued implementation of the compliance and enforcement strategy for the Bay watershed will target sources of pollution impairing the Bay in the watershed and airshed. The program met its FY 2014 targets for pollution controls for sediment and phosphorus, but not for nitrogen. By FY 2016, the program expects to achieve 45 percent of its goals for implementing nitrogen, phosphorus and sediment reduction actions to achieve final TMDL allocations (the FY 2010 baseline is 0 percent, and the long term goal is 100 percent goal achievement by 2025).

The EPA will continue its broad range of grant programs, and will prioritize funding for jurisdictions, local governments and watershed organizations based on their proven ability to reduce nutrient and sediment loads from key sectors such as urban development and agriculture. The EPA also is working to ensure that the states provide support to local governments for on the ground actions necessary to achieve the goals of the Bay TMDL. In FY 2016, the EPA will continue to provide assistance to Bay watershed jurisdictions working to improve the viability and integrity of their water quality offset and trading programs. Several of the Bay watershed jurisdictions have established or expanded water quality trading programs to support the goals of their WIPs and other milestones.

Gulf of Mexico Program:

The Gulf of Mexico Program's FY 2016 budget request of \$3.9 million will allow the EPA to continue its support for Gulf restoration work, such as improved water quality, habitat conservation and replenishment, environmental education/outreach and protection of coastal and marine resources. During FY 2016, funding will support (through the competitive federal process) the development and implementation of comprehensive, stakeholder-informed coastal improvement projects and tools. The focus will be projects and activities which directly support "community-based" restoration and enhancement of habitat, improvement of water quality, education on climate change and coastal resiliency issues, and critical environmental outreach and education opportunities for the general public. This program will also help to serve the underserved and under-represented communities of the Coast). The EPA will continue to coordinate with the U.S. Department of Agriculture, the U. S. Department of Commerce, other

federal agencies, the Gulf States, and other partners to leverage resources toward projects within the Gulf of Mexico region and the Mississippi River Basin.

Homeland Security

In FY 2016, the EPA will carry out a national training program for water systems on recently completed guidance and electronic tools to design and deploy a Water Quality Surveillance and Response System. Deployment of a Water Quality Surveillance and Response System can allow a water utility to rapidly detect and respond to water quality problems like contamination in the distribution system in order to reduce public health and economic consequences. The EPA also will continue to support the Water Alliance for Threat Reduction to protect the nation's critical water infrastructure and oversee the national laboratory network that forms the Water Laboratory Alliance. The Water Laboratory Alliance enables the water sector to rapidly analyze a surge of laboratory samples during a significant contamination event.

In FY 2016, the EPA will continue to fulfill its obligations under Executive Order (EO) 13636 – Improving Critical Infrastructure Cybersecurity – which designates the EPA as the lead agency responsible for cybersecurity in the water sector. Recent assessments by the Department of Homeland Security have supported the widespread concern that the primary threat to the nation's critical infrastructure is cyber-attack on Industrial Control Systems (ICS). Both drinking water and wastewater systems rely heavily on ICS that were designed in many cases decades ago with little or no consideration of cyber security. Any interruption of a clean and safe water supply will erode public confidence and could produce significant public health and economic consequences.

In FY 2016, the EPA will continue to build its capacity to identify and respond to threats to the nation's critical water infrastructure. The EPA's wastewater and drinking water security efforts will continue to support the water sector by providing access to information-sharing tools and mechanisms that provide timely information on contaminant properties, water treatment effectiveness, detection technologies, analytical protocols, and laboratory capabilities for use in responding to a water contamination event.

Research

The Safe and Sustainable Water Resources (SSWR) research program, funded at \$111.0 million in FY 2016, conducts research and provides the information and tools to EPA, water resource managers, and other decision makers at all levels of government. Research integrates social, economic, and environmental sciences to support the nation's range of growing water-use and ecological requirements.

The overarching watershed approach of the SSWR program's drinking water, wastewater, stormwater and ecosystems research recognizes the dynamic 'one water' hydrologic cycle. Integrated throughout the program are the goals of a sustainable environment, economy and society and the overarching drivers of changing climate, extreme events, land use, energy, agriculture and demographic scenarios.

In order to better achieve these goals in FY 2016 and beyond, the SSWR program will be reorganized around four interrelated topics:

- **Watershed Sustainability:** Gathering, synthesizing, and mapping the necessary environmental, economic, and social information of watersheds, from local to national scales, to determine the condition, future prospects, and restoration potential of the Nation's watersheds;
- **Nutrients and Harmful Algal Blooms (HABs):** Conducting EPA nitrogen and co-pollutant research efforts for multiple types of water bodies and coordinating across media (water, land and air) and various temporal and spatial scales, including support for developing numeric nutrient criteria, decision-support tools, and cost-effective approaches to nutrient reduction.;
- **Green Infrastructure and Stormwater:** Developing innovative tools, technologies, and strategies for managing water resources (including stormwater) today and over the long term as the climate and other conditions change; and
- **Water Systems:** Developing tools and technologies for the sustainable treatment of water and wastewater, and promoting the economic recovery of water, energy, and nutrient resources through innovative municipal water services and whole system assessment tools. This area focuses on small water systems and can be scaled up to larger systems.

Hydraulic fracturing for oil and gas has the potential to impact surface and subsurface water resources. EPA research will assist decision makers (Federal, state, tribal, and local; industry and energy sectors; and the public) in making environmentally-responsible energy extraction and processing decisions. In particular, research devoted to unconventional oil and gas activities, including hydraulic fracturing, will focus on understanding and preventing potential impacts on water resources (including drinking water).

To help achieve this goal, in FY 2016, the EPA will respond to peer review comments from the Agency's Science Advisory Board (SAB) in order to finalize the *Study of Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources*. This report will provide a synthesis of the state of the science, including the results of research focused on whether hydraulic fracturing impacts drinking water resources, and if so, will identify the driving factors.

This work aligns with a Memorandum of Agreement (MOA) EPA signed in 2012 with DOE and DOI to develop a multi-agency program to focus on timely, policy relevant science to support sound policy decisions by state and Federal agencies for ensuring the prudent development of energy sources while protecting human health and the environment. Additional goals include minimizing potential risks in developing these resources, maximizing each agency's particular strength, and reducing interagency overlap. In particular, the EPA's Air, Climate and Energy (ACE) and the Safe and Sustainable Water (SSWR) research programs, will undertake a coordinated effort to study the potential impacts of hydraulic fracturing on air, water quality, and ecosystems. In FY 2016, the EPA will respond to peer review comments from the Agency's Science Advisory Board (SAB) in order to finalize the *Study of Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources*. This report will provide a synthesis of the state of the science, including the results of research focused on whether hydraulic fracturing affects drinking water resources, and if so, will identify the driving factors.

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

Goal 3: Cleaning Up Communities and Advancing Sustainable Development

Clean up communities, advance sustainable development, and protect disproportionately impacted low-income and minority communities. Prevent releases of harmful substances and clean up and restore contaminated areas

STRATEGIC OBJECTIVES:

- Support sustainable, resilient, and livable communities by working with local, state, tribal, and federal partners to promote smart growth, emergency preparedness and recovery planning, brownfield redevelopment, and the equitable distribution of environmental benefits.
- Directly implement federal environmental programs in Indian country and support federal program delegation to tribes. Provide tribes with technical assistance and support capacity development for the establishment and implementation of sustainable environmental programs in Indian country.
- Conserve resources and prevent land contamination by reducing waste generation and toxicity, promoting proper management of waste and petroleum products, and increasing sustainable materials management.
- Prepare for and respond to accidental or intentional releases of contaminants and clean up and restore polluted sites for reuse.

GOAL, OBJECTIVE SUMMARY

Budget Authority
Full-time Equivalents
(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Cleaning Up Communities and Advancing Sustainable Development	\$1,862,387.9	\$1,775,552.6	\$1,953,479.0	\$177,926.4
Promote Sustainable and Livable Communities.	\$464,428.3	\$441,440.0	\$504,571.8	\$63,131.8
Restore Land	\$1,088,938.8	\$1,025,550.9	\$1,089,006.3	\$63,455.4
Strengthen Human Health and Environmental Protection in Indian Country	\$89,512.7	\$86,907.8	\$121,038.4	\$34,130.6
Preserve Land	\$219,508.1	\$221,653.9	\$238,862.6	\$17,208.7
Total Authorized Workyears	3,891.6	3,871.4	3,820.4	-51.0

Goal 3: Cleaning Up Communities and Advancing Sustainable Development

Strategic Goal: *Clean up communities, advance sustainable development, and protect disproportionately impacted low-income and minority communities. Prevent releases of harmful substances and clean up and restore contaminated areas.*

Introduction

The EPA has made it a priority to collaborate closely with and effectively leverage efforts of other federal agencies, states, tribes and local communities to improve the health of American families and protect the environment one community at a time, all across the country. Resources in Goal 3 will expand the work we do to enhance the livability and economic vitality of neighborhoods in and around brownfields sites and take into consideration the impacts of our decisions on communities with an emphasis on disadvantaged, overburdened and underserved communities. Requested resources will support improvements in oversight of chemical storage and manufacturing facilities, carried out by the EPA in coordination with our interagency partners. In FY 2016, the EPA will continue to work to implement enhance the tracking and management of hazardous waste through modern electronic Manifest (e-Manifest) tracking system.

The EPA strives to protect and restore land, by cleaning up communities to create a safer environment for all Americans. Hazardous and non-hazardous wastes on land can migrate to air, groundwater and surface water, contaminating drinking water supplies, causing acute illnesses and chronic diseases, and threatening healthy ecosystems. Local land use and infrastructure investments also can generate unanticipated environmental consequences, such as increased stormwater runoff, loss of open space, and increased greenhouse gas emissions. By cleaning up contaminated sites and returning them to communities for reuse, assisting communities to use existing infrastructure and plan for more efficient and livable communities, and encouraging the minimization of environmental impacts throughout the full life cycle of materials, EPA programs promote sustainability. The EPA leads efforts to preserve, restore, and protect our land, for both current and future generations. We will continue our work to prevent and reduce exposure to contaminants, accelerate the pace of cleanups, and reduce the environmental impacts associated with land use across the country. The EPA works collaboratively with international, state, Tribal, and local partners to achieve these aims. In addition, the EPA will continue to work with communities to address risks posed by intentional and accidental releases of hazardous substances into the environment and ensure that communities have an opportunity to participate in environmental decisions that affect them. Our efforts are guided by scientific data, tools, and research that alert us to emerging issues and inform decisions on managing materials and addressing contaminated properties.

In FY 2016, the EPA will partner with state and tribes to prevent and reduce exposure to contaminants. For example, improved compliance at high-risk oil and chemical facilities through inspections will help prevent exposure and lower the risk of accidents. For example, in June 2014, OSHA advised Region 2 of the EPA of a facility potentially out of compliance. The EPA inspected the facility and found significant corrosion at the facility which indicated that an

unplanned release of ammonia was possibly imminent. The EPA immediately notified and worked closely with the local fire department, the EPA's emergency response program and company representatives to address and avert the potential dangerous release of ammonia.

The EPA and its key state, Tribal, and local partners, including affected communities, have matured in our collaborative approaches to identifying and cleaning up contaminated sites and putting these sites back into productive use for communities. The EPA's Integrated Cleanup Initiative (ICI) leverages the full range of the agency's land cleanup authorities to accelerate the pace of cleanups, address a greater number of contaminated sites, and put these sites back into productive use while protecting human health and the environment. The agency will continue to apply lessons learned which includes practices that better integrate the remedial design and remedial action phases of site cleanup.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund) and the Resource Conservation and Recovery Act (RCRA) provide legal authority for the EPA's work to protect and restore the land. The agency and its partners use Superfund authority to clean up uncontrolled or abandoned hazardous waste sites, allowing land to be returned to productive use. Under RCRA, the EPA works in partnership with states and tribes to address risks associated with processes that generate, recycle, transport, treat, store, or dispose of waste.

Many communities across the country regularly face risks posed by intentional and accidental releases of hazardous substances into the environment. Approximately 156 million people (roughly 51 percent of the U.S. population) live within 3 miles of a Superfund, RCRA Corrective Action, or Brownfields site that received EPA funding. This population is more likely to be minority, lower income, and linguistically isolated, and less likely to have a high school education than the U.S. population as a whole.¹⁸ In FY 2016, the agency is investing over \$1.29 billion to continue to apply the most effective approaches to preserve and restore land by developing and implementing prevention programs, improving response capabilities, and maximizing the effectiveness of response and cleanup actions under RCRA, Superfund, Leaking Underground Storage Tanks (LUST) and other authorities. This strategy will help ensure that human health and the environment are protected and that land is returned to beneficial use in the most effective way.

In FY 2016, scientific data, research, and cost-effective tools will support addressing needed improvements to land cleanup programs (e.g., Superfund, Brownfields, RCRA Corrective Action, and LUST). The EPA is making significant progress in assuring that in advance of the full cleanup process, unacceptable human exposures are eliminated or controlled as soon as possible. The RCRA Corrective Action and Superfund programs have made significant progress in stabilizing exposure, while longer-term cleanup moves forward. Across all cleanup programs,

¹⁸ Data collected includes: site information as of the end of FY11 from CERCLIS, RCRAInfo, and ACRES and census data from the 2007-2011 American Community Survey. Data from FY 2011 was chosen to correspond most closely to the census data in the 2007-2011 American Community Survey. In FY 2011 this included 1,393 Superfund sites, 3,689 RCRA Corrective Action sites and 11,568 Brownfields sites. This universe of sites is not the same universe as in Figure 6. A circular site boundary, equal to the site acreage, was modeled around the latitude/longitude for each site and then a 3 mile buffer ring was placed around the site boundary. Census data was then collected for each block group whose centroid fell within the three mile area.

the EPA will continue to take action to address any unacceptable exposures and eliminate acute risks while also pursuing long-term, permanent cleanups. This approach is exemplified by the EPA's goal to control contaminated groundwater migration at 1,149 final and deleted NPL sites and non-NPL sites through Superfund Alternative Approach (SAA) agreements; and to control human exposures to contamination at 1,447 final and deleted NPL sites and non-NPL sites through SAA agreements by the end of FY 2016. As of the end of FY 2014, the EPA controlled human exposures and groundwater migration at 1,429 and 1,123 final and deleted NPL sites, respectively.

The EPA also will continue to implement its Community Engagement Initiative to ensure transparent and accessible decision-making processes, deliver information that communities can use to participate meaningfully, and help the EPA produce outcomes that are responsive to community perspectives and that ensure timely cleanup decisions.

Under federal environmental statutes, the EPA has responsibility for protecting human health and the environment in Indian country. Under the EPA's 1984 Indian Policy, the agency works with tribes on a government-to-government basis in recognition of the federal government's trust responsibility to federally-recognized tribes and that the "EPA recognizes tribes as the primary parties for setting standards, making environmental policy decisions, and managing programs for reservations consistent with agency standards and regulations."

Major FY 2016 Changes

The FY 2016 request funds top priority work under Goal 3, specifically focused on communities, accident prevention, hazardous substance cleanup, sustainability, and building a High Performing Environmental Protection Enterprise. Four key investments critical to advancing core program work and FY 2016 priorities are discussed below.

Circuit Riders

Many communities lack the capacity and expertise for environmental decision-making—for example, to build resilience to climate change into their decision-making—and have expressed a strong need for technical assistance. The EPA, however, does not have the resources to directly provide technical assistance to every community. In FY 2016, EPA will fund a cadre of non-EPA "circuit riders" in every region who can partner with the EPA Regional Offices to provide on-the-ground support to multiple communities through the provision of tools, training, technical assistance, data, and information.

Regional Community Resource Coordinators

In FY 2016, the EPA will provide each EPA Regional Office FTE for cross-agency, multi-media Community Resource Coordinators to focus on climate, sustainability, and communities. These coordinators will help ensure that EPA resources and expertise meet community needs in a more holistic way. These coordinators also will work as a cross-agency, cross-goal, multi-media team to facilitate access for overburdened and vulnerable communities to leverage the wide range of EPA programmatic expertise and resources, in order to develop their own solutions.

Multi-media GHG Mitigation

In addition, the EPA will direct a total of \$1.3 million to support the EPA's commitment in climate mitigation through waste program activities to reduce greenhouse gas emissions (GHG). The Air Program is making excellent progress addressing GHG emissions from power plants, vehicles, oil, and gas operations. However, further efforts are required to put the country on an emissions trajectory consistent with the President's long-term climate goals. This work will leverage synergies across climate mitigation activities in the Waste and Water programs to generate substantial GHG reductions, resulting in significant co-benefits in non-GHG reduction program areas (e.g., waste reduction, water savings, and job creation).

Environmental Justice

In FY 2016, the EPA will enhance its ability to engage communities to support their ability to be full partners in agency programs that make a visible difference in their community by working to provide holistic central mechanisms to support, assist, and engage with overburdened communities and vulnerable populations, including Tribal populations, rural communities and children. The goal is to provide communities with the support needed in order to leverage and work in conjunction with existing agency programs such as Brownfields, Urban Waters, Sustainable Communities, and Area Wide Planning, as well as with other federal programs. This approach is in keeping with the EJ program's overall emphasis of fostering greater collaboration and leveraging of resources across EPA and the rest of the federal family. Supporting the creation of such collaborations in vulnerable and overburdened communities will ensure that communities attain the necessary capacity and skills to fully benefit from specialized agency programs. With a focus on peer-to-peer learning and collaboration, the EPA will make critical use of the successful support and engagement that these programs have achieved, by leveraging those community experiences in a broader yet more focused manner. This approach is also consistent with feedback received through discussions with community leaders. Within the EJ program, the agency will redirect \$5.0 million to build community capacity and will provide \$1.0 million for technical assistance and training to overburdened and vulnerable communities for technical assistance and training on how to use air and water sensors.

Agency Priority Goals

As part of the development of EPA's FY 2014-2018 Strategic Plan, the EPA established FY 2014-2015 Agency Priority Goals (APGs). During FY 2015, the agency will establish the next round of APGs for FY 2016-2017. The APG that supports Goal 3 is:

Clean up contaminated sites to enhance the livability and economic vitality of communities. By September 30, 2015, an additional 18,970 sites will be made ready for anticipated use protecting Americans and the environment one community at a time.

All of OSWER's cleanup programs (Superfund, RCRA Corrective Action, Brownfields, and LUST) contribute to this APG and take positive action to protect human health and the environment through the cleanup and revitalization of contaminated properties.

Additional information on the EPA's APGs can be found at www.performance.gov.

FY 2016 Activities

In FY 2016, the EPA will work to preserve and restore the nation's land by ensuring proper management of waste and petroleum products, reducing waste generation, increasing recycling and by supporting its cleanup programs and oversight of oil and chemical facilities. These efforts are integrated with the agency's efforts to promote sustainable and livable communities. Work under Goal 3 supports four objectives: 1) Promote Sustainable and Livable Communities, 2) Preserve Land; 3) Restore Land; and 4) Strengthen Human Health and Environmental Protection in Indian Country.

***Objective 1: Promote Sustainable and Livable Communities.** Support sustainable, resilient, and livable communities by working with local, state, Tribal, and federal partners to promote smart growth, emergency preparedness and recovery planning, redevelopment and reuse of contaminated and formerly contaminated sites, and the equitable distribution of environmental benefits.*

The EPA supports the goals of urban, suburban and rural communities to grow in ways that improve the environment, human health and quality of life for their residents. With the support of partners across all levels of government, communities can grow in ways that also strengthen the economy, help them adapt to climate change, improve their resiliency to disasters, use public resources more efficiently, revitalize neighborhoods, and improve access to jobs and amenities. By making sustainable infrastructure investments, communities can successfully build innovative and functional systems on neighborhood streets and sidewalks to deal with the run-off from stormwater and still provide easy access for pedestrians, bicyclists, on-street parking and other beneficial uses. Under local planning and zoning codes that account for the environmental impacts of development, the private sector can more easily construct market-ready "green" buildings serving a range of housing needs. Communities also can benefit from tools, technology and research that better engage citizens and inform local decision making to support smart and sustainable growth.

In FY 2016, the EPA will continue to use several approaches to promote sustainable, healthier communities and protect vulnerable populations and disproportionately impacted low-income, minority, and Tribal communities. The agency is concerned about threats to sensitive populations, such as children, the elderly, and individuals with chronic diseases.

Brownfields

The EPA's Brownfields program is funded at nearly \$189 million, contributing significantly to the agency's Smart Growth activities. This program supports states, local communities, and Tribes in their efforts to assess and cleanup sites that may be contaminated within their jurisdiction and return them to productive reuse. The Brownfields program also helps address climate change by ensuring that potential impacts are taken fully into account when brownfield cleanups are planned and implemented. The Brownfields program works closely with communities like Waterbury, Connecticut, where grants to redevelop brownfields resulted in the

completion of a new public park, an urban garden and greenhouse facility, and the creation of an industrial commons which brought new manufacturing jobs into the city. Many of these projects in EPA's Region 1 have also helped employ local workers trained through the EPA's Brownfields job training program.

In FY 2016, the EPA plans to award approximately 151 assessment grants, and 18 Environmental Workforce Development and Job Training grants. The agency will award 64 direct cleanup cooperative agreements of up to \$200 thousand per site to eligible entities and non-profits, as authorized under CERCLA 104(k)(3). The EPA will continue to focus on area-wide planning (AWP) grants and provide technical assistance through Targeted Brownfield Assessments, cooperative agreements, interagency agreements, and/or contracts to support area wide planning activities. The FY 2016 funding request includes an estimated \$5.1 million to perform Targeted Brownfields Assessments for 51 communities. These grants support the EPA's targeted effort to achieve 1,200 assessments each year and, in FY 2014, the EPA surpassed its goal, completing 1,659 assessments.

Funding also will support assessment and cleanup of abandoned underground storage tanks (USTs) and other petroleum contamination found on brownfields properties (estimated at \$27.5 million) for up to approximately ten Targeted Brownfields Assessments and approximately 132 Brownfields assessment, Revolving Loan Fund and cleanup cooperative agreements, as authorized under CERCLA 104(k)(2) and CERCLA 104(k)(3). Funding also will support additional training, research, technical assistance, and support for Area Wide Planning communities through cooperative agreements, interagency agreements, and direct services from contractors (estimated at \$5.4 million), as authorized under CERCLA 104(k)(6).

The next grant competition for Revolving Loan Fund (RLF) cooperative agreements will occur in FY 2016. Funding will support the capitalization of approximately six revolving loan fund cooperative agreements (estimated at \$4.9 million) to enable eligible entities to make loans and sub-grants to clean up brownfield properties. The EPA will also provide an estimated \$7.8 million in supplemental funding to existing high performing RLF recipients.

Chemical Facility Safety

In FY 2016, the EPA is providing \$27.8 million for the State and Local Prevention and Preparedness program, to support efforts to improve chemical facility safety through stakeholder outreach, emergency planning assistance, high-risk chemical facility inspections, and other activities related to the President's Executive Order on Improving Chemical Facility Safety and Security¹⁹. There is a critical need for the agency to continue efforts to prevent and respond to accidental releases of harmful substances by developing clear authorities and training personnel. Accidents reported to the EPA since 2005 by the current universe of Risk Management Program facilities have resulted in approximately 60 worker and public deaths, over 1,300 injuries, nearly 200 thousand people sheltered in place, and more than \$1.6 billion in on-site and off-site

¹⁹See, Executive Order 13650: Improving Chemical Facility Safety and Security issued August 1, 2013 and Actions to Improve Chemical Facility Safety and Security – a Shared Commitment report issued May 2014.

damages. States and communities often lack the capacity needed to prepare for and/or respond to these emergencies or to prevent them from happening in the first place. The EPA's Region 2 worked in collaboration with states and tribes to develop standard operating procedures for a unified federal, state, and local approach for identifying and responding to risks at chemical facilities and a plan to improve operational coordination. These procedures are now being used as a model for all other of the EPA's Regional Offices. The increased funding level requested for the State and Local Prevention and Preparedness program will build off of these efforts and provide further avenues and opportunities to assist communities and bring together a variety of stakeholders to improve operational safety and response capabilities.

Smart Growth

The Smart Growth program helps community and government leaders protect the environment and public health, build the economy, and improve the quality of people's everyday lives by making smart growth and sustainable design practices commonplace. Also, through the Partnership for Sustainable Communities, in its fifth year, EPA's Smart Growth program works with the U.S. Department of Transportation (DOT) and the U.S. Department of Housing and Urban Development (HUD) to align housing, transportation, and infrastructure investments and policies, and build capacity in communities to grow in a more sustainable and resilient manner. The agency's Smart Growth program works across the EPA and with other federal agencies to help communities strengthen their economies and protect the environment through use of resilient, and sustainable design approaches. This program focuses on streamlining, concentrating, and leveraging state and federal assistance in urban, suburban, and rural communities that offer the greatest opportunity for development that will deliver environmental and economic benefits, and offer protection against the impacts of climate change.

In FY 2016, the Smart Growth program will continue work to help community and government leaders meet environmental standards through sustainable community and building development, design, policies, and infrastructure investment strategies. The program does this by: providing technical assistance to states, Regional Offices, and local and Tribal governments; conducting research and developing tools that help communities see the connection between development and the environment, the economy, and public health; and, engaging, leveraging and aligning community-based activities and allotments with other federal agencies. The program will continue to innovate and use new mechanisms to address the growing demand from communities for more direct technical assistance, including in rural areas, in areas that are disadvantaged, or in areas that have been adversely affected by contamination and environmental degradation.

Environmental Justice

The EPA is committed to fostering public health in communities disproportionately burdened by pollution by integrating and addressing issues of environmental justice (EJ) in the EPA's programs and policies as part of its day-to-day business. The EPA's EJ program promotes accountability for compliance with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." The EPA's

program offices implement the EPA's strategic plan on Environmental Justice, Plan EJ 2014 and its successor plan which will be finalized in 2015.²⁰ The EJ program facilitates this implementation by: (1) supporting and promoting the agency's efforts to address environmental justice issues; (2) supporting the EPA's outreach to other federal agencies through the interagency working group on environmental justice; and, (3) promoting opportunities for communities to be heard and meaningfully engage with the federal government on environmental justice issues. In FY 2016, EPA is requesting \$6.0 million to provide overburdened and vulnerable communities to build capacity and to provide technical assistance and training to help address local environmental and public health issues. In FY 2016, the proposed budget for Environmental Justice is \$14.6 million.

Objective 2: Preserve Land. *Conserve resources and prevent land contamination by reducing waste generation and toxicity, promoting proper management of waste and petroleum products, and increasing sustainable materials management.*

RCRA Waste Management

The FY 2016 budget provides \$70.8 million to the RCRA Waste Management program. The RCRA program is critical to comprehensive and protective management of solid and hazardous materials for the entire lifecycle. Resources for state implementation are provided through the Hazardous Waste Financial Assistance categorical grant. In FY 2016, RCRA permits for approximately 20,000 hazardous waste units (such as incinerators and landfills) at 6,600 treatment, storage, and disposal facilities permits will be issued, updated or maintained. The EPA provides leadership, work-sharing, and support to the states and territories authorized to implement the permitting program and directly implements the entire RCRA program in Iowa and Alaska.²¹ The EPA is facing an increasing amount of implementation support responsibility at the request of states, including addressing complex regulatory and statutory interpretation issues. Requests for this type of support are expected to continue through FY 2016. The EPA's long-term goal is to ensure 500 additional facilities receive new or updated controls, which is described in the Agency's FY 2014–2018 Strategic Plan. In FY 2014, the EPA completed 129 accomplishments and since FY 2009, due to EPA's work, 745 facilities received new or updated controls.

The agency is bolstering the RCRA Tribal program by directing a total of \$3 million in extramural funds to support and advance two of the agency's priorities - Making a Visible Difference in Communities across the Country and Launching a New Era of State, Tribal and Local Partnerships. This shift will be accompanied by the introduction of a new RCRA performance measure of EPA technical assistance provided to tribes.

The agency also will support national polychlorinated biphenyl (PCB) cleanup and disposal activities by: assessing emerging technologies and issuing approvals (no states can be authorized for PCBs); and evaluating PCB wastes against the criteria specified in the Toxic Substance Control Act (TSCA). This effort will be tracked by a performance measure that was

²⁰ Plan EJ 2014 can be found at <http://www.epa.gov/compliance/environmentaljustice/plan-ej/index.html>.

²¹ <http://www.epa.gov/wastes/hazard/tsd/permit/pgprprpt.htm>

implemented in FY 2014 to track all approvals (i.e., cleanup, storage and disposal activities) issued by the EPA under TSCA. The EPA estimates approximately 20 disposal and storage approvals and 130 cleanup approvals are issued per year. The annual target for both FY 2015 and 2016 for the comprehensive measure for cleanups, disposal, and storage activities is 200. The EPA issued 927 approvals between FY 2009 and FY 2014.

Hazardous Waste Electronic Manifest

On October 5, 2012, the President signed the Hazardous Waste Electronic Manifest Establishment Act, requiring the EPA to develop and maintain a hazardous waste electronic manifest system. The system will be designed to, among other functions, assemble and maintain the information contained in the estimated five million forms accompanying hazardous waste shipments across the nation. In FY 2013, the EPA initiated the effort to develop a program that provided for the submission of information electronically, as well as in paper form. This commitment at the federal level will significantly reduce the time and costs for state regulators and regulated entities associated with submitting, maintaining, processing, and publishing data from hazardous waste manifests. When fully implemented, the electronic hazardous waste manifest (e-Manifest) program will reduce the reporting burden for firms regulated under RCRA's hazardous waste provisions by approximately \$75 million annually.

In FY 2016, the EPA is providing a total of \$7.8 million within the RCRA Waste Management program for the e-Manifest account, to continue work on the e-Manifest system. This increase in contract funding is necessary to keep on schedule for system completion. This funding will allow development of the e-Manifest IT system to continue during FY 2016 in order to produce the system scheduled for completion in FY 2018. In FY 2016, the EPA plans to perform the following key activities:

Continue the development of the e-Manifest IT system using an agile strategy that involves the rollout testing of key system components as they are developed;

Complete the proposed User Fee rule in mid-FY 2016, including the economic models supporting this rule;

- Analyze and select the accounting and financial reporting structures needed to collect and manage user fees;
- Establish the e-Manifest Advisory Board, consisting of state and industry stakeholders and IT experts, to provide input on system performance and user fee adjustments; and
- Coordinate with the agency's E-Enterprise effort to incorporate relevant concepts, approaches, and tools during system development. E-Manifest remains a key component of the E-Enterprise business model.

In 2014, the EPA completed the regulation that authorizes the electronic transmittal of manifests, began work under a new contract for development of the technical architecture of the system, and began work on the user fee rule. Once this system is in place, the legislation provides that fees collected through the program will be used to fund the operation of the program and reimburse system development costs.

Sustainable Materials Management (SMM)

In FY 2016, the EPA will continue to advance SMM practices and a cradle-to-cradle perspective representing an important emphasis shift from waste management to materials management. The agency's approach to SMM integrates the safe reuse of materials with economic opportunity. In FY 2016, the EPA will utilize SMM to offset the use of virgin resources by 9,450,000 tons of materials and products. The target for FY 2015 was increased from previous years due to results realized through the new SMM programs and improvements in recovery reported in FY 2012 where 9,002,588 tons were offset. In FY 2016, the EPA will continue to promote the SMM approach in high priority areas (e.g., Sustainable Food Management, Used Electronics, and Federal Government), which are selected based on an analysis of opportunities for reducing environmental impacts in *Sustainable Materials Management: The Road Ahead*.²² In FY 2016, the EPA will continue to lead by example, and will help other federal agencies adopt SMM approaches and promote the reduction of greenhouse gas emissions, which furthers the goals of Executive Order 13514 ("Federal Leadership in Environmental, Energy, and Economic Performance"), and also save money. For example, the EPA estimates that the national implementation of the Federal Green Challenge has saved the taxpayers more than \$10 million by the end of FY 2014. The EPA also will explore the application of the SMM approach into other high priority sectors, based on lessons learned from the first two years of the national SMM program and re-evaluation of *The Road Ahead*.

In FY 2016, the EPA proposes to provide Regional Offices with five additional FTE in the waste program to support multi-media Community Resource Coordinators that will partner with states, tribes, and local governments to strengthen capacity to adapt to a changing climate, increase resiliency in communities, and increase collaboration. In addition, the EPA will increase extramural funding to support the EPA's work in climate mitigation through waste program activities to reduce greenhouse gas emissions (GHG). These funds can be used to focus on: increasing the recycling rates for containers and packaging; enhancing and expanding results-driven materials recovery programs; working with the public and private sectors to provide funding to assist state and local governments and NGOs focused on materials recovery infrastructure development and behavior change; and providing technical assistance to recycling programs.

LUST Prevention

There is a strong relationship between LUST clean up success and reducing the number of new releases through the prevention program. Since 2007, the EPA has placed an increased emphasis on monitoring compliance through increased frequency of inspections and other Energy Policy Act (EPA) provisions. During this time, compliance rates have increased by 6.5 percent and there has been a significant decrease in new confirmed releases. The continued reduction in confirmed releases will remain a critical component in backlog reduction (which is at the lowest level since 1990), but maintaining cleanup progress is essential as well. In FY 2014, the EPA increased to 72.5 percent the number of UST facilities that were in significant operational compliance with leak prevention and detection requirements. The collaboration between the EPA

²² U.S. EPA OSWER ORCR. Sustainable Materials Management: The Road Ahead. June 2009
<http://www.epa.gov/epawaste/conserve/smm/pdf/vision2.pdf>.

and states and tribes contributes to this success and supports the cross-agency strategy for A New Era of State, Local, Tribal, and International Partnerships.

In FY 2016, the EPA will provide \$28.9 million to continue assisting states in complying with release prevention activities authorized by the EPAct. States rely primarily on federally funded assistance agreements to maintain inspection frequency and ensure compliance which will help prevent future confirmed releases. States may use money from LUST assistance agreements for inspections, other release prevention and compliance assurance activities for federally-regulated USTs, and enforcement activities related to release prevention.

Objective 3: Restore Land. Prepare for and respond to accidental or intentional releases of contaminants and clean up and restore polluted sites for reuse.

Land Cleanup and Revitalization

In addition to promoting sustainable and livable communities, the EPA's cleanup programs (e.g., Superfund Remedial, Superfund Federal Facilities Response, Superfund Emergency Response and Removal, RCRA Corrective Action, Brownfields, the Toxic Substances Control Act, PCB Cleanup and Disposal, and LUST Cooperative Agreements) and its partners are taking proactive steps to facilitate the cleanup and revitalization of contaminated properties. To support the Land Revitalization Initiative, in 2004 the EPA created the Land Revitalization Agenda²³ to integrate reuse into EPA's cleanup programs, establish partnerships, and help make land revitalization part of EPA's organizational culture.

Superfund properties are often reused as commercial facilities, retail centers, government offices, residential areas, industrial and manufacturing operations, and parks and recreational areas. In the EPA's Region 4, on-site businesses and organizations on current and former Superfund sites provide over 6,200 jobs and contribute an estimated \$334 million in annual employment income for residents across the Southeast. Restored on-site properties in Region 4 generate about \$4.4 million in annual property tax revenues for local governments.

In FY 2016, the agency will continue to help communities clean up and revitalize these once productive properties by: removing contamination; helping limit urban sprawl; fostering ecologic habitat enhancements; enabling economic development; taking advantage of existing infrastructure; and maintaining or improving quality of life. There are multiple benefits associated with cleaning up contaminated sites: reducing mortality and morbidity risk; preventing and reducing human exposure to contaminants; making land available for commercial, residential, industrial, or recreational reuse; and promoting community economic development. A 2011 study suggests that Superfund cleanups reduce the incidence of congenital anomalies in infants by roughly 20-25 percent to mothers living within 2,000 meters of a site.²⁴ A 2013 study found that when sites are cleaned up and deleted from the National Priorities List

²³ Additional information on this agenda can be found on http://www.epa.gov/landrevitalization/agenda_full.htm.

²⁴ Currie, Janet; Michael Greenstone, and Enrico Moretti. 2011. "Superfund Cleanups and Infant Health." *American Economic Review*, 101(3): 435-41.

(NPL), properties within three miles of the sites experience an 18.6 to 24.5 percent increase in value.²⁵

A cumulative total of 1,707 sites have been listed on the Superfund National Priorities List (NPL), including 385 which have now been deleted. Sites are placed on the NPL when the presence of contamination, often from complex chemical mixtures of hazardous substances, has impacted groundwater, surface water, and/or soil. The precise impact of many contaminant mixtures on human health remains uncertain; however, substances commonly found at Superfund sites have been linked to a variety of human health problems, such as birth defects, infertility, cancer, and changes in neurobehavioral functions. By the end of FY 2016, the agency plans to achieve control of all identified unacceptable human exposures at 18 additional sites (compared to FY 2014 accomplishments), bringing the program's cumulative total of Human Exposure Under Control (HEUC) sites to 1,447. Additionally, the agency expects to achieve Groundwater Migration Under Control (GMUC) at 26 additional sites by the end of FY 2016 (compared to FY 2014 accomplishments), bringing the program's cumulative total to 1,149 sites.

The FY 2016 budget provides \$190.7 million for the Superfund Emergency Response and Removal program. The agency will continue to support all emergency actions and focus on encouraging viable Potentially Responsible Parties (PRPs), when available, to conduct removal actions. In FY 2016, the EPA will complete or oversee a total of 275 Superfund-lead and PRP-lead removal actions (including voluntary, Administrative Order on Consent, and Unilateral Administrative Order actions).

The Superfund Remedial program is funded at \$539.6 million in FY 2016. The agency will continue to give priority to completing projects at various stages in the response process, such as investigation, remedial design, and remedy construction. This strategy will help support community revitalization and economic redevelopment and will provide funding to initiate cleanup construction work at several construction projects. The targets for remedial action completions, human exposure under control, groundwater migration under control and site-wide ready for anticipated use will remain at FY 2015 levels at 105, 9, 13, and 45 respectively.

RCRA Corrective Action

The FY 2016 budget provides \$37 million for the RCRA Corrective Action program. The EPA works in partnership with states, having authorized 44 states and territories to directly implement the corrective action program.²⁶ Resources for state implementation are provided through Hazardous Waste Financial Assistance categorical grants. This program is responsible for overseeing and managing cleanups that protect human health and the environment at active RCRA sites. The agency provides leadership and support to its state partners and serves as lead regulator at a significant, and increasing, number of facilities. States have been challenged in the cleanup area due to downsizing and are looking to the federal program for assistance. As a result and at the request of states, the EPA has resumed, where resources allow, work previously

²⁵ S. Gamper-Rabindran, C. Timmins. 2013. "Does cleanup of hazardous waste sites raise housing values? Evidence of spatially localized benefits," *Journal of Environmental Economics and Management*.

²⁶ State implementation of the CA Program is funded through the STAG (Program Project 11) and matching State contributions.

agreed to by states under work-sharing agreements. This trend has been increasing, particularly for sites that have complex issues²⁷ or for more specialized tasks such as ecological risk assessments.

Through its RCRA Corrective Action program, the EPA and its state partners will issue, update, or maintain RCRA permits for 3,779 hazardous waste facilities. The facilities are a subset of approximately 6,000 sites with corrective action obligations and include some of the most highly contaminated, technically challenging, and potentially threatening sites the EPA confronts in any of its cleanup programs.²⁸ As of the end of FY 2014, there remains a significant workload to be addressed. Only 25 percent of the 3,779 facilities have reached the end goal of completing cleanup, so this leaves over 2,800 facilities still needing oversight and technical support to reach their final goal of completing site-wide cleanup objectives. Through FY 2014, the EPA controlled human exposures and groundwater migration at 87.3 and 79 percent of RCRA corrective action facilities respectively. A critical aspect of the program is to implement final remedies and in Region 3 over 40 remedies were implemented, enabling 6,500 acres to be ready for reuse. The sites are now being used for a new 22-story office tower, a casino and a potential multi-billion dollar economic development for the Sparrows Point facility.

In FY 2016, the EPA will focus resources on those sites that present the highest risk to human health and the environment and implement actions to end or reduce these threats. The EPA will also place additional focus on identifying facilities where the corrective action process can be considered completed (i.e., where cleanup performance standards have been met, or no further cleanup action is necessary). These activities will be consistent with the programmatic response developed by the agency after a 2011 GAO report on the RCRA corrective action program, which also is reflected in revisions to targets for three RCRA Corrective Action performance measures.

LUST Cleanup

The EPA's goal is to prevent future releases of wastes in the environment. Accidents can happen but proper prevention leads to fewer and fewer releases. In FY 2016, the UST program will primarily focus on: inspections; technical assistance; financial assurance mechanisms; safe transition to alternative fuels; implementation in Indian country; bringing petroleum brownfields properties into productive use, and implementing the revised UST regulations.

The LUST program has achieved significant success in closing releases since the beginning of the program. End of year FY 2014 data show that, of the approximately 521,000 releases reported since the beginning of the UST program in 1988, 447,323 (or 85.8 percent) have been cleaned up. This means approximately 74,000 releases remain that have not reached cleanup completion. The LUST program continues to make progress decreasing the overall backlog; however, the pace of cleanups is declining. In FY 2014, the program completed 10,393 LUST

²⁷ For example, vapor intrusion, wetlands contamination or extensive groundwater issues.

²⁸ There are additional facilities that have corrective action obligations that the EPA does not track under GPRA, as they are typically smaller, less significant facilities or sites. The EPA recognizes that the total universe of such facilities or sites "subject to" corrective action universe is between five and six thousand facilities or sites.

cleanups. Achieving these cleanup rates in the future will be more challenging due to the complexity of remaining sites, an increased state workload, a decrease in available state resources and the increasing costs of cleanups. In FY 2011, the LUST program completed a study of its cleanup backlog. The EPA's backlog study helped identify potential strategies to address the remaining UST releases²⁹. The EPA is working with states to develop and implement specific strategies and activities applicable to their particular sites to reduce the UST releases remaining to be cleaned up.

Oil Spill Prevention

The discharge of oil into U.S. waters can threaten human health, cause severe environmental damage, and create financial loss to businesses and the public. The Oil Spill program helps protect U.S. waters by effectively preventing, preparing for, responding to, and monitoring oil spills. The EPA serves as the lead responder for cleanup of all inland zone spills, including transportation-related spills from pipelines, trucks, and other transportation systems, and provides technical assistance and support to the U.S. Coast Guard for coastal and maritime oil spills. In FY 2016, the EPA will continue to focus efforts on oil spill prevention, preparedness, compliance assistance, and enforcement activities associated with the more than 600 thousand non-transportation-related oil storage facilities that the EPA regulates through its Spill Prevention Control and Countermeasure (SPCC) Program. In addition, the agency will finalize development and begin implementation of the National Oil Database including identifying requirements for electronic submission of Facility Response Plans (FRP) in order to create reporting efficiencies for the agency, states, local government and industry.

In FY 2016, the EPA is providing a total of \$18.5 million for the Oil Spill Prevention, Preparedness and Response program. The EPA will perform inspections of regulated high-risk oil facilities to better implement prevention approaches and to bring 60 percent of SPCC and FRP inspected facilities found to be non-compliant during the FY 2010 through FY 2015 inspection cycle into compliance. The EPA will emphasize emergency preparedness, particularly through the use of unannounced drills and exercises, to ensure facilities and responders can effectively implement response plans. In FY 2014, the EPA was able to bring 79 percent of FRP and 72 percent of SPCC facilities into compliance due to the development of improved guidance and procedures. The program will focus resources on bringing non-compliant facilities into compliance.

Homeland Security

The EPA's Homeland Security work is an important component of the agency's prevention, protection, and response activities. The FY 2016 budget submission includes \$31.5 million to: maintain its capability to respond effectively to incidents that may involve harmful chemical, biological, and radiological (CBR) substances; maintain the Environmental Response Laboratory Network (ERLN); develop and maintain agency expertise and operational readiness for all

²⁹ For more information, please see *The National LUST Cleanup Backlog: A Study of Opportunities* at <http://www.epa.gov/swerust1/cat/backlog.html>.

phases of consequential management following a CBR incident, specifically environmental characterization, decontamination, laboratory analyses and clearance; maintain the Emergency Management Portal (EMP); and conduct CBR training for agency responders to improve CBR preparedness.

Objective 4: Strengthen Human Health and Environmental Protection in Indian Country. *Directly implement federal environmental programs in Indian country and support federal program delegation to tribes. Provide tribes with technical assistance and support capacity development for the establishment and implementation of sustainable environmental programs in Indian country.*

Few tribes have sought federal environmental program implementation authorities. Small and under-staffed Tribal environmental departments, a lack of quality baseline data, and the nuances of Indian law all present challenges to greater environmental protection in Indian Country. The EPA Tribal General Assistance Program (GAP) is the primary resource available to Tribes to assist with capacity building and the development of environmental protection programs in Indian Country. In 2016, the EPA will increase significantly its support for environmental protection in Indian Country by providing \$96 million under the Tribal GAP, a \$31 million increase from 2015. The increased investment in Tribal environmental protection addresses long-standing challenges to recruit and retain qualified environmental professionals to remote locations in Indian Country, and recognizes the need for increased resources as Tribes approach the implementation of environmental regulatory programs.

Tribal GAP funding enables Tribal governments to recruit committed people to help build environmental programs. Examples of activities eligible for funding include conducting environmental education, performing assessments of indoor air quality or household pesticide usage, developing media-specific (e.g., solid waste, air, water) environmental protection plans, drafting environmental regulations, and assessing baseline environmental conditions.

The EPA will continue to support the success of the Tribal GAP by continuing to implement new Tribal GAP guidance and indicators, working with Tribes to complete long-range EPA-Tribal Environmental Plans (ETEP) to serve as the basis for shorter-term Tribal GAP work plans, and developing new performance measures to better track the effectiveness of EPA's technical assistance and other support to Tribes as well as to monitor the progress of Tribes to develop their own environmental programs. The magnitude of Tribal environmental and human health challenges reinforces the importance of the EPA's commitment to maintaining strong environmental protections in Indian Country.

The EPA also works under two important Tribal infrastructure Memoranda of Understandings (MOU) among five federal agencies³⁰. The EPA, the Department of the Interior, the Department of Health and Human Services, the Department of Agriculture, and the Department of Housing and Urban Development work as partners to improve infrastructure on Tribal lands and currently focus efforts on providing access to safe drinking water and basic wastewater facilities to tribes.

³⁰ <http://www.epa.gov/tribal/trprograms/2013-itf-memorandum-of-understanding.pdf>

The first, or umbrella MOU, promotes coordination among federal Tribal infrastructure programs, including financial services, while allowing federal programs to retain their unique advantages. Under the umbrella MOU, for the first time, five federal departments joined together and agreed to work across traditional program boundaries on Tribal infrastructure issues. The efficiencies and partnerships resulting from this collaboration will directly assist tribes with their infrastructure needs. The second MOU, addressing a specific infrastructure issue, was created under the umbrella authority and addresses the issue of access to safe drinking water and wastewater facilities on Tribal lands. Currently, the five federal agencies are working together to develop solutions for specific geographic areas of concern (Alaska and the Southwest), engaging in coordination of funding, and promoting cross-agency efficiency. These activities are completed in coordination with federally recognized tribes. Additionally, the EPA has entered into a MOU³¹ with the Department of Energy and the Department of the Interior and formed an interagency work group to understand the implications of hydraulic fracturing on Tribal lands. For more information, please see the web link: <http://www.epa.gov/tribalportal/mous.htm>.

The EPA continues to work closely with other federal agencies as well as the Domestic Policy Council to implement the President's directive regarding the Tribal consultation process. The President's November 5th, 2009 Memorandum directs each executive department to develop a detailed plan to implement Executive Order (EO) 13175, "Consultation and Coordination with Indian Tribal Governments³²." Under EO 13175, "...all departments and agencies are charged with engaging in regular and meaningful consultation and collaboration with Tribal officials in the development of federal policies that have Tribal implications, and are responsible for strengthening the government-to-government relationship between the United States and Indian tribes." On May 4, 2011, the EPA released its final policy on consultation and coordination with Indian tribes. The EPA is among the first of the federal agencies to finalize its consultation policy in response to President Obama's first Tribal leaders summit in November 2009 and, following the issuance of Executive Order 13175, to establish regular and meaningful consultation and collaboration with Tribal officials in the development of Federal policies that have Tribal implications.

Research

In FY 2016, the Sustainable and Healthy Communities (SHC) research program, funded at \$152.3 million, will continue to support the EPA's program offices, state, and Tribal partners in protecting and restoring land, and providing community decision makers with decision tools to support community health. The work of the SHC research program falls into four inter-related themes:

- *Decision Support and Innovation* will use decision science, interactive social media, spatial analyses, and sustainability assessment methods to provide communities with tools to frame their decision options, outcomes and potential costs and benefits.

³¹ http://unconventional.energy.gov/pdf/oil_and_gas_research_mou.pdf

³² <http://www.whitehouse.gov/sites/default/files/omb/memoranda/2010/m10-33.pdf>

- *Community Well-being: Public Health and Ecosystem Goods and Services* will utilize the sciences of ecosystem services and human health to enable communities to assess how the natural and built environment affects the health and well-being of their residents. This research will address impacts in all communities including communities and tribes that are at risk for disproportionate environmental and health impacts;
- *Sustainable Approaches for Contaminated Sites and Materials Management* will build upon federal, regional and state experiences. This research aims to improve the efficiency and effectiveness of mechanisms that address land and groundwater contamination, including preventing and cleaning up fuel and oil spills. This research also will review and characterize innovative approaches that communities can use to:
 - Reduce new sources of contamination,
 - Enable recovery of energy, materials, and nutrients from waste, and
 - Enable brownfields sites to be put to new, economically productive uses that benefit communities; and
 - Apply waste management and contaminated sediments remediation technologies in specific geographic locations.
- *Integrated Solutions for Sustainable Outcomes* research will develop methods and data that will allow communities to consider the full costs and benefits of their decisions. For example, SHC will review and characterize systems modeling approaches that communities can use to account for the linkage among:
 - Waste and materials management,
 - Building codes and zoning for land use planning,
 - Transportation options, and
 - Provision of infrastructure, including water and energy.

The SHC research program will continue ongoing research to develop models, data bases, metrics and other decision-support tools that will empower communities to make decisions regarding sustainable approaches to environmental protection. This research will provide community based decision support tools which consider ecosystem goods and services, contaminated sites, multimedia pollutants within environmental justice communities, and the beneficial use of sustainable materials.

Consistent with Administration priorities, EPA's Science to Achieve Results (STAR) and the Greater Research Opportunities (GRO) fellowship programs, and all funds, will be reorganized across the government as part of a comprehensive reorganization to facilitate a cohesive national strategy of STEM education programs to increase the impact of Federal investment in four areas: K-12 instructions; undergraduate education; fellowships and scholarships; and information education.

The SHC research program will continue to address many facets of site contamination and cleanup. This includes source elimination of contaminated ground water and migration at Superfund sites and plume management to reduce exposures via drinking water. This science will be used to develop guidance on site assessment, remedial investigations, and to provide technical support resources to agency programs and Regional Offices.

The SHC research program will continue to develop or revise protocols to test oil spill control agents or products for listing on the National Contingency Plan Product Schedule, including dispersants' performance and behavior in deep water. Additional research outcomes include improved characterization and remediation methods for fuels released from leaking underground storage tanks.

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

Goal 4: Ensuring the Safety of Chemicals and Preventing Pollution

Reduce the risk and increase the safety of chemicals and prevent pollution at the source

STRATEGIC OBJECTIVES:

- Reduce the risk and increase the safety of chemicals that enter our products, our environment and our bodies.
- Conserve and protect natural resources by promoting pollution prevention and the adoption of other sustainability practices by companies, communities, governmental organizations, and individuals

GOAL, OBJECTIVE SUMMARY

Budget Authority
Full-time Equivalent
(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Ensuring the Safety of Chemicals and Preventing Pollution	\$626,482.3	\$620,491.8	\$667,921.1	\$47,429.3
Promote Pollution Prevention	\$52,498.7	\$50,537.0	\$53,480.9	\$2,943.9
Ensure Chemical Safety	\$573,983.6	\$569,954.8	\$614,440.2	\$44,485.4
Total Authorized Workyears	2,418.2	2,410.9	2,389.0	-21.9

Goal 4: Ensuring the Safety of Chemicals and Preventing Pollution

Strategic Goal: *Reduce the risk and increase the safety of chemicals and prevent pollution at the source.*

Introduction

Chemicals are ubiquitous in our everyday lives and products. They are used in the production of everything from our homes and cars to the cell phones we carry and the food we eat. Chemicals often are released into the environment as a result of their manufacture, import, processing, use, and disposal. Vulnerable populations, including low-income, minority, and indigenous populations, may be disproportionately impacted by, and thus particularly at risk from, exposure to chemicals.^{33,34,35} In addition, research shows that children receive greater relative exposures to chemicals because they inhale or ingest more air, food, and water on a body-weight basis than adults do.^{36,37,38,39} The FY 2016 funding level for Ensuring the Safety of Chemicals and Preventing Pollution is \$667.9 million, an increase of \$47.4 million over the FY 2015 Enacted Budget.

Under existing Toxic Substances Control Act (TSCA) authorization, the EPA is charged with the responsibility of assessing the safety of commercial chemicals and to act upon those chemicals if they pose significant risks to human health or the environment. The \$56.3 million provided in FY 2016 for the Chemical Risk Review and Reduction Program will allow the EPA to sustain its efforts to assess the potential risks from existing chemicals in commerce and review and manage the potential risks of new chemicals entering commerce. In FY 2016, the EPA will continue to implement its Enhanced Chemicals Management approach, which seeks to expand and enhance the quantity, accessibility and usefulness of chemical safety information, thereby strengthening the capability of the EPA, other regulators and the public to assess chemical hazards and potential exposures, identify potential risks to human health and the environment and take appropriate risk management action.

In FY 2016, the EPA's pesticide licensing program will continue to evaluate new pesticides before they reach the market and ensure that pesticides already in commerce are safe when used in accordance with the label. As directed by the Federal Insecticide, Fungicide, and Rodenticide

³³ Holistic Risk-based Environmental Decision Making: a Native Perspective

(<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1241171>)

³⁴ Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations

³⁵ Interim Guidance on Considering Environmental Justice During the Development of an Action

(<http://www.epa.gov/compliance/ej/resources/policy/considering-ej-in-rulemaking-guide-07-2010.pdf>)

³⁶ Guide to Considering Children's Health When Developing EPA Actions: Implementing Executive Order 13045 and EPA's Policy on Evaluating Health Risks to Children

([http://yosemite.epa.gov/ocephweb.nsf/content/ADPguide.htm/\\$File/EPA_ADG_Guide_508.pdf](http://yosemite.epa.gov/ocephweb.nsf/content/ADPguide.htm/$File/EPA_ADG_Guide_508.pdf))

³⁷ Holistic Risk-based Environmental Decision Making: A native Perspective

(<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1241171>)

³⁸ Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

³⁹ Guide to Considering Children's Health When Developing EPA Actions: Implementing Executive Order 13045 and EPA's Policy on Evaluating Health Risks to Children

([http://yosemite.epa.gov/ocephweb.nsf/content/ADPguide.htm/\\$File/EPA_ADG_Guide_508.pdf](http://yosemite.epa.gov/ocephweb.nsf/content/ADPguide.htm/$File/EPA_ADG_Guide_508.pdf))

Act (FIFRA), the Federal Food, Drug, and Cosmetic Act (FFDCA), and the Food Quality Protection Act (FQPA). The EPA will register pesticides to protect consumers, pesticide users, workers who may be exposed to pesticides, children, and other sensitive populations. The EPA also will review potential impacts on the environment, with particular attention to endangered species and the effects of pesticides on honey bees and pollinators.

The EPA has a long history of collaboration to address a wide range of domestic and global environmental issues. The EPA envisions that environmental progress in cooperation with international partners can catalyze even greater progress toward protecting our domestic environment. Examples include: ensuring that trade-related activities sustain environmental protection, enhancing the ability of our trading partners to protect their environments and develop in a sustainable manner, enhancing opportunities through effective consultation and collaboration related to environmental issues of mutual interest. To advance all of these efforts, the EPA continues to focus on the following international priorities: building strong environmental institutions and legal structures, climate change adaptation and mitigation, improving air quality, expanding access to clean water, reducing exposure to toxic chemicals, and cleaning up e-waste.

Pollution prevention (P2) is central to the EPA's sustainability strategies. In FY 2016 the EPA will continue to foster the development of P2 solutions to environmental problems that eliminate or reduce pollution, waste and risks at the source. This includes: cleaner production processes and technologies, safer "greener" materials and products, and promoting the adoption, use and market penetration of those solutions by providing technical assistance and demonstrating the benefits of P2 solutions.

The National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act require the EPA to review Environmental Impact Statements (EISs). Under NEPA, an EIS is required for major federal actions significantly affecting the human environment. The review of each EIS includes assessing options for avoiding or mitigating environmental impacts, while making agency comments available to the public and allowing for public input. In FY 2016, in support of its mission, the program will continue to foster cooperation among federal agencies to ensure compliance with applicable environmental statutes, promote better integration of pollution prevention and ecological risk assessment elements into federal programs, and provide technical assistance in developing projects that prevent adverse environmental impacts.

Major FY 2016 Changes

To meet the FY 2016 performance targets and provide support to our top priorities, we will make fundamental changes to our long-standing business practices in contracts, grants and oversight of delegated programs, among others. Implementing these changes requires realigning resources and personnel to ensure that we increase effectiveness without undermining vital protections or quality and good financial management. The Agency will rely on new efficiencies and approaches from the High Performing Organization initiative to achieve success. In Goal 4, resources are focused on Taking Action on Toxics and Chemical Safety; Sustainability; and Building a High Performing Environmental Protection Enterprise. While continuing EPA's ongoing commitment to science, the rule of law and transparency, we have updated and refined

our current direction to maximize our effectiveness and guide our agenda in the months and years ahead.

Taking Action on Toxics and Chemical Safety

The FY 2016 budget in this area reflects the completion of several multi-year projects and anticipated efficiencies in the assessment of chemical risk. A portion of these savings, \$1.8 million, will be from the Chemical Risk Review and Reduction (CRRR) program. CRRR resources will be prioritized for the assessment and management of TSCA Work Plan existing chemicals and new chemicals entering commerce.

In 2016, the EPA's Endocrine Disruptor Screening Program (EDSP) will increase its use of alternative testing methodologies (*i.e.*, high-throughput assays and computational tools) to prioritize and screen chemicals based on potential endocrine bioactivity and exposure, in particular, the estrogen, androgen, or thyroid hormone pathways in humans and wildlife. The increased use of alternative testing methodologies will reduce the workload in developing new assays. This effort will help to save roughly \$3.3 million compared to FY 2015 Enacted levels

Agency Priority Goals

The EPA has developed FY 2014-2015 Agency Priority Goals that advance the agency priorities and the agency's Strategic Plan. EPA's Priority Goal to help reduce the risk and increase the safety of chemicals is:

Assess and reduce risks posed by chemicals and promote the use of safer chemicals in commerce. By September 30, 2015, EPA will have completed more than 250 assessments of pesticides and other commercially available chemicals to evaluate risks they may pose to human health and the environment, including the potential for some of these chemicals to disrupt endocrine systems. These assessments are essential in determining whether products containing these chemicals can be used safely for commercial, agricultural and/or industrial uses.

Additional information on the EPA's Agency Priority Goals can be found at www.performance.gov.

FY 2016 Activities

Objective 1: Ensure Chemical Safety. *Reduce the risk and increase the safety of chemicals that enter our products, our environment and our bodies.*

The TSCA chemical management program addresses new chemicals, existing chemicals and legacy chemicals. The major activity of the new chemicals program is premanufacture notices review and management, which addresses the potential risks from approximately 1,000 chemicals (including products of biotechnology and new chemical nanoscale materials) received annually and prior to their entry into the U.S. marketplace. In FY 2016, the EPA's toxics program will maintain its 'zero tolerance' goal for preventing the introduction of unsafe new chemicals into commerce.

The greatest challenge is to address existing chemicals already in use but where available information is limited. Existing chemicals activities fall into three major categories: 1) obtaining, managing, and making chemical information public; 2) screening and assessing chemical risks; and 3) taking action to manage chemical risks. In FY 2016, progress will be made to assess existing chemicals already in commerce by continuing to aggressively pursue EPA's FY 2018 Strategic Measure target to assess all chemicals from the first TSCA Work Plan Chemicals list by 2018, including completing 10 risk assessments in FY 2016. In FY 2014, EPA announced the release of final risk assessments for four of these Work Plan Chemicals (Trichloroethylene (TCE), Methylene Chloride (DCM), Antimony Trioxide (ATO) and Hexahydro Hexamethylcyclopenta Benzopyran (HHCB) – exceeding the FY 2014 performance target calling for three final risk assessments for TSCA chemicals.

In FY 2016, the agency will continue to implement the chemicals risk management program to further eliminate risks from high-risk “legacy” chemicals. The EPA will continue to maintain a base resource level to enable the agency to meet any continuing obligations under statutes associated with PCBs and other long-standing chemical risks. This budget request sustains the Lead program at steady levels. Outreach to educate the public about the risks of elevated blood lead levels and to encourage testing for children at risk will continue. There are still areas of contamination that require action. For instance, a FY 2014 enforcement settlement for TSCA lead paint violations will provide \$50,000 to fund blood lead testing for 350 children and provide blood lead analysis equipment to three community health clinics that serve low income and homeless residents. As illustrated in the figure below (Figure 2), the EPA will build on the successful national effort to reduce childhood blood lead levels and continue ongoing implementation of the Lead Renovation, Repair and Painting (RRP) Rule. Outreach efforts and targeted activities will support renovator certifications, including recertifying any previously certified firms that seek to retain their certified status. As of December 31, 2014, more than 140,000 firms are actively certified to perform Lead RRP work.

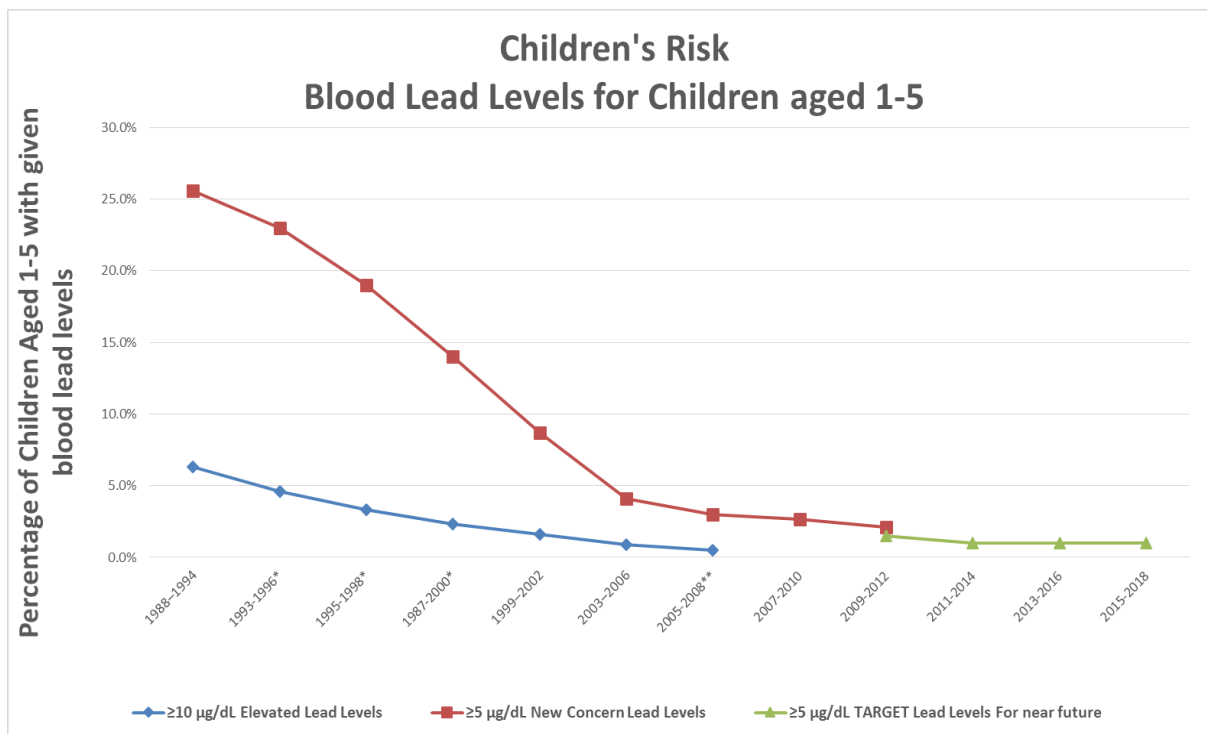


Figure 2: Percentage of Children Aged 1-5 with Given Blood Lead Levels (PM 008)* **Values are not CDC data; interpolated for graphical display only** ** $\geq 10 \mu\text{g/dL}$ estimate is considered unreliable (relative standard error greater than 40 percent).

The agency also will continue to collaborate with international partners, through the Organization for Economic Cooperation and Development (OECD), to maximize the efficiency of the EPA's resource use and promote adoption of internationally harmonized test methods for identifying endocrine disrupting chemicals. The EPA represents the U.S. as either the lead or a participant in OECD projects involving the improvement of assay systems including the development of non-animal prioritization and screening methods.

Identifying, assessing, and reducing the risks presented by the pesticides on which our society and economy depend are integral to ensuring environmental and human safety. Chemical and biological pesticides help meet national and global demands for food. They provide effective pest control for homes, schools, gardens, highways, utility lines, hospitals, and drinking water treatment facilities, while also controlling vectors of disease. The program ensures that the pesticides available in the U.S. are safe when used as directed. The program is increasing its focus on pollinator health as well, working with other federal partners, states, and private stakeholder groups to stem pollinator declines and increase pollinator habitat. In addition, the program places priority on reduced risk pesticides that, once registered, will result in increased societal benefits.

In FY 2016, \$131.1 million is provided to support the EPA pesticide applications review and registration program. The EPA will invest substantial resources to improve the compliance of pesticide registrations with the Endangered Species Act. A portion of the funding will ensure that pesticides are correctly registered and applied in a manner that protects water quality. The EPA

will continue registration and reregistration requirements for antimicrobial pesticides. Together, these programs will minimize exposure to pesticides, maintain a safe and affordable food supply, address public health issues, and minimize property damage that can occur from insects, pests and microbes. The agency's worker protection, certification, and training programs will encourage safe application practices. The EPA will also continue to emphasize the protection of potentially sensitive groups, such as children, by reducing exposures from pesticides used in and around homes, schools, and other public areas. In FY 2014, Regional Offices in Denver and Seattle collaborated with state partners and other federal agencies to produce a "Sensible Steps" webinar series to introduce manageable, low- or no-cost steps communities can take to improve the health of their school environments. Topics included integrated pest management, chemical safety, mold and moisture control, energy efficiency, and reducing PCB exposure.

The EPA's FY 2016 budget for the Office of Pesticides Program includes an increase of approximately \$1.5 million above FY 2015. This increase will fund agency work to improve pollinator health by performing laboratory research and technical analysis on pollinators (e.g., honeybees, monarch butterflies) and related resources (e.g., hive structures), improving our scientific understanding to promote pollinator health through the regulatory processes. The FY 2016 budget also includes a \$0.5 million increase over the FY 2015 budget to supplement existing resources available to states and tribes to develop pollinator protection plans.

Objective 2: Promote Pollution Prevention. *Conserve and protect natural resources by promoting pollution prevention and the adoption of other sustainability practices by companies, communities, governmental organizations, and individuals.*

In FY 2016, EPA's Pollution Prevention (P2) program (EPM and STAG combined) is funded at \$18.2 million. The P2 program is one of the EPA's primary tools for advancing environmental stewardship and sustainability by federal, state and tribal governments; businesses; communities and individuals. The P2 program seeks to alleviate environmental problems by achieving significant reductions in the generation of hazardous releases to air, water, and land; reductions in the use or inefficient use of hazardous materials; reductions in the generation of greenhouse gases; and reductions in the use of water. At the same time, the P2 Program helps businesses and others reduce costs as a result of implementing these preventative approaches. The P2 program's efforts advance the agency's priorities to pursue sustainability, take action on climate change, make a visible difference in communities, and ensure chemical safety.

The P2 program accomplishes its mission by fostering the development of solutions to environmental problems that are designed to eliminate or reduce pollution, waste and risks at the source, such as cleaner production processes and technologies and safer, "greener" materials and products. The program also promotes the adoption, use and market penetration of those solutions through such activities as providing technical assistance and demonstrating the benefits of P2 solutions. For example, the P2 program works with a diverse set of stakeholders to develop voluntary consensus standards for greener products, such as computers, televisions, and imaging equipment, and to increase the use of these products in the federal government through federal green purchasing requirements, leading to significant environmental benefits from the reduction

of hazardous materials in these products, increased product lifespan, and improved energy efficiency.

The EPA will continue to support the Green Suppliers Network (GSN) and the Economy, Energy, and Environment (E3) Partnership among federal agencies, local governments, and manufacturers to promote energy efficiency, job creation, and environmental improvement. In FY 2016, the EPA will continue to work with its federal partners and state pollution prevention programs to conduct facility-specific assessments for small and medium-sized suppliers to help them reduce business costs, improve productivity and efficiency, and promote sustainability. In FY 2016, the E3 Initiative and GSN are expected to grow to include more than 35 state partners by leveraging existing resources across the E3 federal agency partners. In FY 2016, the EPA also will leverage expertise from other programs to enhance sustainability and pollution prevention education and outreach resources. Through an intra-agency working group, each program office will disseminate educational resources and information to the public. In FY 2016, EPA regional offices, as well as states, tribes and other grantees, will focus on the implementation of the following P2 national emphasis areas: climate change mitigation, food manufacturing, and community level hazardous materials source reduction.

In FY 2016, the EPA will continue to work with other federal agencies to streamline, modernize, and improve the NEPA process by encouraging early involvement in the project scoping process and promoting approaches for working collaboratively with federal, state, local and Tribal partners on project proposals. The agency will continue to participate in the effort to implement the May 2014 Interagency “Implementation Plan for the Presidential Memorandum on Modernizing Infrastructure Permitting” to meet the goal of reducing permitting and review timelines, while improving environmental and community outcomes. This will include participating in coordinated reviews, developing innovative mitigation approaches, and promoting the use of IT tools. As a component of this effort, the program will continue to use and promote *NEPAassist*, a geographic information system (GIS) tool developed to assist users (the EPA, other federal agencies, and the public) with environmental reviews.⁴⁰ In FY 2016, the proposed budget for NEPA is \$17.6 million.

International Priorities

To achieve our domestic environmental and human health goals, international partnerships are essential, including those with the business community, entrepreneurs and other members of society. Pollution is often carried by winds and water across national boundaries, posing risks to human health and ecosystems many hundreds and thousands of miles away.

Through these partnerships, the EPA will maintain focus on several priorities. In FY 2016, the EPA will work with other nations to build strong environmental institutions and legal structures with the goal of combating climate change by limiting pollutants and improving air quality in the U.S. and around the world. The EPA will work to expand access to clean water, and protect vulnerable communities from toxic pollution that impacts North America and nations worldwide.

⁴⁰ For more information, refer to: www.epa.gov/oecaerth/nepa/nepassist-mapping.html.

Through joint efforts with partners from around the world, the EPA is working to facilitate commerce, promote chemical safety, further sustainable development, protect vulnerable populations and engage in environmental issues, such as reducing risks from exposure to mercury and lead-based paint. The agency's international priorities will guide collaboration with the Commission on Environmental Cooperation (CEC) and all international partners.

In FY 2016, the EPA will enhance sustainability principles through expanded partnership efforts in multilateral forums and in key bilateral relationships. In addition, we will strengthen existing and build new international partnerships to encourage increased international commitment to sustainability goals and to promote a new era of global environmental stewardship based on common interests, shared values, and mutual respect. And finally, the EPA will continue to focus on technical and policy support for global and regional efforts such as strengthening the EPA leadership in the Arctic Council and with other governments to improve policies and implement cooperative projects that address climate change and reduce contamination of the arctic.

Research

The EPA research program's Chemical Safety and Sustainability (CSS), Human Health Risk Assessment (HHRA), and Homeland Security underpin the analysis of risks and potential health impacts across the broad spectrum of EPA programs and provide the scientific foundation for chemical safety and pollution prevention. In FY 2016, the EPA will further strengthen its planning and delivery of science by continuing an integrated research approach that tackles problems systematically.

In FY 2016, the EPA will continue the multi-year transition away from the traditional assays used in the endocrine disruptor screening program, transitioning instead to use of alternative testing methodologies (*i.e.*, high-throughput assays and computational tools) to prioritize and screen chemicals based on potential endocrine bioactivity and exposure, in particular, the estrogen, androgen, or thyroid hormone pathways in humans and wildlife. This will allow the agency to more quickly, efficiently, and cost-effectively assess potential chemical toxicity. In FY 2016, the EPA will continue to evaluate endocrine-relevant high throughput ToxCast assays; this will increase our knowledge of adverse outcome pathways (AOP)—the chain of events that occur at a molecular level when toxic chemicals disrupt the functioning of otherwise healthy elements of the endocrine system.

Increases in FY 2016 for the CSS research program are critical to efforts begun in FY 2015 to develop computational models to integrate 21st-Century exposure research with ToxCast and Tox21 data. This effort will significantly advance risk-based decision making in support of the Agency's goal of keeping communities safe and healthy. The CSS program also will invest in FY 2016 to expand the breadth of the CompTox research program to include more representative models of biological systems of interest, including the thyroid, improve ways to estimate human exposure to individual and multiple chemicals, and better integrate human and ecological risk evaluations. Specific FY 2016 actions include: (1) modeling and generating exposure data through ExpoCast, a state-of-the-art chemical screening tool that provides rapid and cost-efficient high throughput exposure information; (2) evaluating background exposure levels and the relevance of different environmental exposures for human health; and (3) enhancing the CSS

Dashboard for fit-for-purpose risk-based prioritization. These applications complement efforts of the agency's Chemical Safety and Pollution Prevention program to apply high-throughput and other 21st Century exposure information to TSCA chemical prioritization.

This support is critical to enhancing and accelerating our understanding of chemical risks and exposure. Overall, this increase will significantly enhance the predictive capacity of the computational models and generate new data both for evaluating the impact of existing chemicals as well as for selecting safer alternatives. In addition, \$1.5 million of an overall \$14 million increase in the CSS budget compared to FY 2015 will support engagement with the stakeholder community to build confidence in the relevance of Comptox data and provide guidance about the application of that data for decisions by government, industry, and the public about the safety of chemicals.

The CSS program also will continue to apply computational and knowledge-driven approaches to amplify the impact of its research on engineered nanomaterials (ENMs). Evaluation of emerging safer chemical alternatives is another focus in FY 2016.

In FY 2016, the Agency's Human Health Risk Assessment Research Program will continue to develop assessments and scientific products that are used extensively by EPA program and regional offices and the risk management community to estimate the potential risk to human health from exposure to environmental contaminants. These include:

- Integrated Risk Information System health hazard and dose-response assessments;
- Integrated Science Assessments of criteria air pollutants;
- Community Risk and Technical Support; and
- Methods, models, and approaches to modernize risk assessment for the 21st Century.

The Homeland Security Research Program (HSRP) will continue to enhance the nation's preparedness, response, and recovery capabilities for homeland security incidents and other hazards by providing stakeholders and partners with valuable detection and response analytics for incidents involving chemical, biological, or radiological agents. The program will continue to emphasize the research needed to support response and recovery from wide-area attacks involving radiological agents, nuclear agents, and bioterror agents such as anthrax.

The EPA will allocate \$164.7 million to the Chemical Safety and Sustainability, Human Health Risk Assessment, and Homeland Security Research programs in FY 2016.

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

Goal 5: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

Protect human health and the environment through vigorous and targeted civil and criminal enforcement. Use Next Generation Compliance strategies and tools to improve compliance with environmental laws.

STRATEGIC OBJECTIVES:

- Pursue vigorous civil and criminal enforcement that targets the most serious water, air, and chemical hazards in communities to achieve compliance. Assure strong, consistent, and effective enforcement of federal environmental laws nationwide. Use Next Generation Compliance strategies and tools to improve compliance and reduce pollution.

GOAL, OBJECTIVE SUMMARY

Budget Authority
Full-time Equivalent
(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance	\$754,970.8	\$737,846.4	\$804,080.3	\$66,233.9
Enforce Environmental Laws to Achieve Compliance	\$754,970.8	\$737,846.4	\$804,080.3	\$66,233.9
Total Authorized Workyears	3,444.1	3,390.7	3,401.9	11.2

Goal 5: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

Strategic Goal: *Protect human health and the environment through vigorous and targeted civil and criminal enforcement. Use Next Generation Compliance strategies and tools to improve compliance with environmental laws.*

Introduction

The EPA's civil and criminal enforcement programs assure compliance with our nation's environmental laws. A strong and effective enforcement program is essential to ensuring compliance with our laws and regulations, maintaining a level economic playing field, and realizing the public health and environmental protections our federal statutes were created to achieve. As a key part of our enforcement program, the EPA is committed to supporting public health in communities disproportionately burdened by pollution by integrating and addressing issues of environmental justice (EJ) in the EPA's programs and policies as part of its day-to-day business. The EPA's EJ program promotes accountability for compliance with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations."

On January 18, 2011, President Obama issued a Presidential Memoranda titled "Regulatory Compliance"⁴¹ which reaffirms the importance of effective enforcement and compliance with regulations. It states "[s]ound regulatory enforcement promotes the welfare of Americans in many ways, by increasing public safety, improving working conditions, and protecting the air we breathe and the water we drink. Consistent regulatory enforcement also levels the playing field among regulated entities, ensuring that those that fail to comply with the law do not have an unfair advantage over their law-abiding competitors."

In FY 2016, the EPA seeks to maintain the strength of its core national enforcement and compliance assurance program. Recognizing the challenging fiscal climate at both the federal and state level, the agency will implement strategies that use resources more efficiently and find opportunities to focus and leverage efforts to assure compliance with environmental laws. Our objective is to pursue vigorous civil and criminal enforcement that targets the most serious water, air, and chemical hazards in communities; assure strong, consistent, and effective enforcement of federal environmental laws nationwide; and use modern, streamlined techniques, strategies and tools to improve targeting and transparency and increase compliance with environmental laws. The EPA will continue to focus resources on the most important environmental problems where noncompliance is having a significant impact. This strategy means EPA's top enforcement priority will be pursuing higher impact cases, including large, complex cases that require significant investment and a long-term commitment.

The EPA has achieved impressive pollution control and health benefits through vigorous compliance monitoring and enforcement activities. However, enforcement alone will not address

⁴¹ Please see: <http://www.whitehouse.gov/the-press-office/2011/01/18/presidential-memoranda-regulatory-compliance>.

all non-compliance problems. The sheer number of regulated facilities, the contributions of large numbers of smaller sources to environmental problems, and limited resources mean the EPA cannot rely solely on the traditional single facility inspection and enforcement approach to ensure widespread compliance.⁴² In FY 2016, the agency will continue to implement new and innovative methods to reduce pollution and increase compliance nationwide over the long term.

Towards this end, in FY 2016, the agency proposes to accelerate its Next Generation Compliance approaches to harness state-of-the-art technology to make our efforts more efficient and effective. This approach, formalized in the agency's 2014-2018 Strategic Plan, aims to increase compliance with environmental regulations by capitalizing on advances in information technology and advanced pollutant detection technology. There are five main components to Next Generation Compliance: 1) structuring our regulations to be easier to implement and contain self-enforcing compliance mechanisms to achieve higher compliance; 2) using advanced pollutant detection technology to find out about pollution as it happens in real-time; 3) moving from paper to electronic reporting to enhance government efficiency and reduce paperwork burden; 4) making pollution and compliance information more accessible, user-friendly, and available to the public to support community awareness and promote facility accountability; and 5) using innovative approaches to enforcement to focus limited resources on the biggest pollution problems.

The use of new detection technologies, combined with a focus on designing rules and permits that are easier to implement, will improve compliance, expand transparency, and protect communities while reducing costs for states, territories, tribes, and regulated facilities. In particular, the burden of monitoring and compliance reporting will be reduced for states, the EPA and others by investing in state-of-the-art monitoring technology and supporting electronic reporting and interaction with the regulated community. This will allow the EPA and states to more effectively deploy inspection resources. For example, in July 2013, the EPA proposed to convert the National Pollutant Discharge Elimination System (NPDES) paper based reporting systems to a more effective and efficient national electronic system. The final rule, expected in FY 2015 with implementation beginning in FY 2016, will benefit the public, regulated facilities, states, and the EPA by providing high quality, complete, and timely data for the NPDES program. EPA's cost-benefit analysis for the proposed rule estimated that the overall reporting burden will be reduced by 900,000⁴³ hours when the rule is fully implemented.

Efforts already underway have shown that these approaches will have meaningful benefits. For example, the EPA's Region 6 implemented the first federal General Permit in the nation that required electronic submission of data through the EPA's electronic reporting tools. Implemented for the Offshore Oil & Gas NPDES General Permit program, this effort uses electronic reporting to reduce reporting burden on permitted entities and the EPA, while allowing for automated tracking of permit limits and reporting requirements, enhancing data quality, and increasing transparency for regulators and the public. The agency estimates that without deployment of the electronic reporting tools, data entry alone would have cost the agency

⁴² Please see: www.epa.gov/compliance/resources/policies/civil/cwa/actionplan101409.pdf.

⁴³ For more information, see "Economic Analysis of the National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Proposed Rule" [DCN 0040] at <http://www.regulations.gov/#!documentDetail:D=EPA-HQ-OECA>.

approximately \$2.6 million over a five year permit cycle. In combination with the experience from other programs that use electronic reporting such as Ohio's NPDES program and the EPA's TRI program, this provides another example of how the benefits are likely to grow as electronic reporting becomes the norm.

The EPA's National Enforcement and Compliance Assurance program will continue its efforts to implement these Next Generation Compliance approaches to achieve the EPA's goals more efficiently and effectively as part of the agency's work to remain forward-looking and adaptive. The Next Generation Compliance initiative is aligned with the larger EPA E-Enterprise business strategy (E-Enterprise), which is jointly managed with the states. E-Enterprise is a transformative 21st century strategy for rethinking how government agencies deliver environmental protection in the United States. A partnership of EPA, states, and tribes, E-Enterprise is collaboratively modernizing business processes and driving innovations across the EPA and states' environmental organizations. ⁴⁴ These changes will improve environmental results by making government more efficient and enhancing services to the regulated community and the public.

E-Enterprise resources in the Enforcement and Compliance Assurance program will support a variety of projects, including: 1) partnering with states to develop and implement fillable e-forms for electronically reporting NPDES information; 2) supporting NPDES e-reporting rule development and program evaluation; 3) purchasing advanced monitoring equipment; and 4) supporting transparency through modernization of Enforcement and Compliance History Online (ECHO) and the Air Facility System (AFS). Another focus will be developing a field collection, evidence management, and reporting system for conducting compliance monitoring inspections which will be guided by ongoing pilots and scoping to determine how much can be done in tandem with the states.

Data transparency is a key foundation of ECHO and the EPA believes making compliance information publicly available allows the American people to be better informed about environmental activities and compliance in their communities and provides an incentive to achieve greater compliance with environmental laws. ECHO is the EPA's premier web-based tool that provides public access to compliance and enforcement information for approximately 800,000 EPA-regulated facilities. The EPA, state and local environmental agencies collect/report data from facilities and from their own activities and submit that data to EPA databases. ECHO usage has grown to more than 2 million queries per year.

Major FY 2016 Changes

The FY 2016 request maintains FTE at a reduction from pre-FY 2010 levels, but includes funding that allows EPA to support those staff so they can identify and address noncompliance, through investments in data analysis and systems, lab support, equipment for front line enforcement personnel, inspector training, and case support such as expert witnesses and document management services. These resources will allow our staff to be more efficient and

⁴⁴ Please see: <http://www.exchangenetwork.net/wp-content/uploads/2014/01/EEnterpriseConceptualBlueprint-013114-FINAL-Executive-Summary.pdf>.

effective at protecting public health and keeping a level playing field for companies that play by the rules, by assuring compliance with environmental laws.

In FY 2016⁴⁵, key changes to the enforcement and compliance budget reflect changes in programmatic direction and efficiencies gained from modernizing our business processes. The EPA is accelerating its efforts to improve its business processes under both the E-Enterprise business strategy and Next Generation Compliance based on advances in pollutant monitoring and information technology. In addition to the resources supporting the EPA as a High Performing Environmental Protection Enterprise, resources across Goal 5 will be focused on advancing efforts in the agency's priorities: Addressing Climate Change and Improving Air Quality, Protecting America's Waters, Cleaning up Our Communities and Advancing Sustainable Development.

Addressing Climate Change and Improving Air Quality

In FY 2016, the EPA will help improve air quality in communities by targeting large pollution sources, especially in the coal-fired utility, acid, cement, glass and natural gas exploration and production industries that are not complying with environmental laws and regulations. Where the EPA finds non-compliance, the agency will take action to bring them into compliance, which may include requiring facilities to install controls that will benefit communities and/or improve emission monitoring. Enforcement activities which cut toxic air pollution in communities will improve the health of residents, particularly those overburdened by pollution. In FY 2016, the agency's budget provides resources to improve the quality and efficiency of compliance inspections, to develop an advanced monitoring equipment program, and to support air regulation implementation. The inspection effort includes the development of tools to allow inspectors to record field observations and transmit inspection reports electronically. Leveraging technology to move to a digitally based process will assist in identification of patterns of problems, compile inspection results in a more timely way, increase transparency on compliance status, and allow for quicker responses where appropriate. The focus of the advanced monitoring program will be on providing communities with monitors, along with technical assistance and training, to allow them to better understand the state of their environment and help local decision-makers consider actions that will reduce the risks from pollution. This work will support both the Air and Water programs.

Protecting America's Waters

In FY 2016, the EPA will work with states to use compliance and enforcement approaches which more effectively and efficiently address the most important water pollution problems. Our focus will include getting raw sewage out of water, cutting pollution related to animal waste, and reducing pollution from stormwater runoff. The EPA also will continue to promote an integrated planning strategy for addressing municipal sewage and stormwater challenges, including the use of lower cost and innovative approaches such as incorporating green infrastructure into enforcement remedies where appropriate. In addition, through its enforcement agreements, EPA

⁴⁵ EPA is providing a total of \$597 million for the National Enforcement and Compliance Assurance program. There are additional resources for the program under Goals 2, 3 and 4.

works closely with communities to get the most important work for protecting health accomplished in the most cost effective way, and on a schedule that is practical and affordable. These efforts will help to clean up great waters like the Chesapeake Bay and will focus on revitalizing urban communities by protecting and restoring urban waters. These options are proving attractive to communities that need to make changes to their CSO programs. Enforcement efforts also will support the goal of assuring clean drinking water for all communities, including small systems and in Indian country, and improving the quality of Safe Drinking Water Act data reported by states to ensure compliance. In FY 2016, the agency's budget directs resources to improve the quality and efficiency of compliance inspections, develop an advanced monitoring equipment program, and test and pilot advanced monitoring technologies, which will support both air and water programs.

Cleaning up Our Communities and Advancing Sustainable Development

In FY 2016, the EPA will continue to protect communities by ensuring that responsible parties conduct Superfund and other cleanups, saving federal dollars for sites where there are no viable contributing parties. Ensuring that responsible parties clean up the sites also reduces direct human exposure to hazardous pollutants and contaminants, provides for long-term human health protection, and ultimately makes contaminated properties available for reuse. The EPA will continue to integrate environmental justice (EJ) considerations into the site remediation enforcement program by using EJ criteria when enforcing RCRA corrective action requirements to meet RCRA 2020 goals and ensuring that institutional controls are implemented at sites with potential environmental justice concerns.

In FY 2016, the agency's budget provides resources to make comprehensive community-based information available on the Geoplatform ensuring that the EPA community investments are mapped and easily accessible to EPA staff. FY 2016 resources also support communities and ensure that ongoing EPA program work is more effectively leveraged. This program will provide financial assistance to eligible organizations working on projects to address local environmental and public health issues in overburdened and vulnerable communities. The funds will be used to build partnerships, assist communities to identify environmental and health problems, implement solutions, and to train experts to address specific environmental justice needs.

Agency Priority Goals

The EPA has developed FY 2014-2015 agency Priority Goals that advance the agency's priorities and the agency's Strategic Plan. EPA's Priority Goal for enforcing laws and ensuring compliance is:

To improve environmental outcomes and enhance service to the regulated community and the public. By September 30, 2015 reduce reporting burdens to EPA by one million hours through streamlined regulations, provide real-time environmental data to at least two communities, and establish a new portal to service the regulated community and public.

To support this Goal, EPA seeks to transform the way business is conducted through its E-Enterprise strategy, a partnership of States, the EPA, and tribes, and is collaboratively

modernizing business processes and driving innovations across agencies and programs. A State-EPA E-Enterprise leadership council has been convened and is actively working to prioritize and consolidate projects to maximize the benefits. The priority goal is housed in Goal 5, but E-Enterprise work will occur in a number of agency programs that interact with states, tribes, and industry.

Next Generation Compliance activities contribute to the burden reduction goal. For example, the e-NPDES reporting rule is estimated to reduce burden by approximately 900,000 hours.⁴⁶ Additional information on the EPA's agency Priority Goals can be found at: www.performance.gov

FY 2016 Activities

***Objective 5.1: Enforce Environmental Laws.** Pursue vigorous civil and criminal enforcement that targets the most serious water, air, and chemical hazards in communities to achieve compliance. Assure strong, consistent, and effective enforcement of federal environmental laws nationwide. Use Next Generation Compliance strategies and tools to increase compliance with environmental laws.*

The EPA continually assesses priorities and embraces new approaches that can help achieve the agency's goals more efficiently and effectively. The EPA's FY 2016 budget submission for the Enforcement and Compliance Assurance program continues to invest resources in high priority areas with the greatest impact on public health, while reducing resources where we have made significant progress (and therefore no longer require as active an enforcement presence), or that, while important, do not address the most substantial impacts to human health. The EPA carefully evaluates program activities and directs limited resources to where they can best protect public health, especially in disadvantaged communities; support core work of state and Tribal partners; and focus on the largest pollution problems. The EPA will continue to examine new enforcement approaches through Next Generation Compliance to make the program more efficient and effective.

The agency remains committed to implementing a strong enforcement and compliance program focused on identifying and reducing non-compliance and deterring future violations. To meet this commitment, the program employs a variety of activities, including data collection and analysis, compliance monitoring, assistance, civil and criminal enforcement efforts and innovative and evidence-based problem-solving approaches to identify and address the most significant environmental issues. In FY 2016, these efforts will be enhanced through Next Generation Compliance approaches that rely on modern reporting and monitoring tools to advance implementation of the agency's priorities and core program work.

Furthermore, in designing and implementing Compliance Monitoring program activities, the EPA tracks and assesses recent studies and evaluations regarding the effectiveness and limits of compliance monitoring and enforcement in promoting compliance and deterrence. The evidence

⁴⁶ For more information, see "Economic Analysis of the National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Proposed Rule" [DCN 0040] at <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OECA>.

in the literature consistently demonstrates that strong and active compliance monitoring and enforcement increases compliance and reduces pollution.⁴⁷ The EPA's Compliance Research Literature web page references many of these studies and reports.⁴⁸

Compliance Monitoring - Targeting the Most Serious Hazards in Communities

The EPA's compliance monitoring program reviews and evaluates the activities of the regulated community to determine compliance with applicable laws, regulations, permit conditions and settlement agreements. The program also determines whether conditions exist at facilities that present imminent and substantial endangerment.

In FY 2016, the EPA's compliance monitoring activities will be both environmental media-based and sector-based. The EPA's media-based inspections complement those performed by states and Tribes, and are a key part of the strategy for meeting the long-term and annual goals established for the air, water, pesticides, toxic substances and hazardous waste programs. The EPA will target its inspections to the highest priority areas and coordinate inspection activity with states and tribes to better leverage resources and enhance collaboration. In FY 2014, the EPA conducted more than 15,600 federal inspections and evaluations.

In FY 2016, as part of Next Generation Compliance, the agency will continue to enhance the efficiency and effectiveness of the compliance monitoring program by leveraging electronic reporting to reduce paperwork burden, increasing transparency by enhancing systems to report, synthesize, utilize, and disseminate monitoring data, designing analytic tools to help understand and utilize data and deploying state of the art monitoring equipment to the field. Synchronizing data systems to utilize electronic transmissions from regulated facilities will benefit the compliance monitoring program by allowing the EPA to better apply evidence-based approaches to the program and determine what strategies achieve the best results.

Compliance monitoring includes the EPA's management and use of data systems to oversee its compliance and enforcement programs under the various statutes and programs that the agency enforces. In FY 2016, the EPA will accelerate the process of enhancing its data systems to integrate with E-Enterprise and to support electronic interaction with regulated facilities, providing more comprehensive, accessible data to the public and improving integration of environmental information with health data and other pertinent data sources from other federal agencies and private entities. The third and final phase of the upgrade to the system that supports both compliance monitoring and civil enforcement, the Integrated Compliance Information System (ICIS), will be completed in FY 2017. Ongoing work in FY 2016 will provide additional functionality to support the agency's Next Generation and E-Enterprise business strategy goals. In addition, the EPA plans to continue work toward improving transparency and analysis through enhancements of the modernized Enforcement and Compliance History Online (ECHO) in alignment with the E-Enterprise business strategy. Specifically, in FY16, the EPA will continue

⁴⁷ For example: R. Hanna & P. Oliva; *The Impact of Inspections on Plant-Level Air Emissions under the Clean Air Act*; 10 B.E Journal of Economic Analysis and Policy 1 (2010). And J. Shimshack & M. Ward, *Enforcement and Over-Compliance*, J. Environ. Econ. 55(1): 90-105 (2008)

⁴⁸ For more information, refer to: <http://www.epa.gov/Compliance>.

to enhance its analytical capabilities for analyzing large data sets and displaying the results in a geospatial platform (e.g., EPA's Geoplatform) to support better targeting of areas of most environmental concern. Currently, ECHO includes State Performance dashboards for the Clean Water Act (CWA), Clean Air Act (CAA) and Resource Conservation and Recovery Act (RCRA) to allow users to assess each state's performance in enforcing the various environmental statutes, as well as integrate facility information across media specific data systems. Through ECHO and its reports, users can now view this data in a comprehensive and organized manner, including a search function. ECHO reports provide a snapshot of a facility's environmental record, showing dates and types of violations, as well as the state or federal government's response. The system allows the public to monitor environmental compliance in communities, corporations to monitor compliance across facilities they own, and investors to more easily factor environmental performance into their decisions. These features will be enhanced to continue to expand public access to more transparent EPA multimedia enforcement and compliance data.

In FY 2016, the proposed compliance monitoring budget is nearly \$123.6 million.

Assuring Strong, Consistent, and Effective Enforcement

Civil Enforcement

The Civil Enforcement program's overarching goal is to assure compliance with the nation's environmental laws and regulations in order to protect human health and the environment. The program collaborates with the Department of Justice, states, local agencies and Tribal governments to ensure consistent and fair enforcement of all environmental laws and regulations. The program seeks to protect public health and the environment and ensure a level playing field by strengthening partnerships with co-implementers in the states, encouraging regulated entities to rapidly correct their own violations, ensuring that violators do not realize an economic benefit from noncompliance and pursuing enforcement to deter future violations.

The Civil Enforcement program develops, litigates and settles administrative and civil judicial cases against serious violators of environmental laws. In FY 2014, the EPA's enforcement actions required regulated entities to invest more than \$9.7 billion in actions and equipment to control pollution (injunctive relief). Also in FY 2014, the enforcement program obtained a total of \$100 million in federal administrative and civil judicial penalties. The EPA's enforcement actions required regulated entities to reduce pollution by an estimated 500 million pounds and treat, minimize, or properly dispose of 711 million pounds of hazardous waste. Sustained and focused enforcement attention to the Safe Drinking Water Act (SDWA) resulted in a 75 percent reduction in the number of public water systems with serious unresolved violations in the past five years, this was the result of combination of federal and state enforcement actions and improved prioritization and tracking processes.

In FY 2016, the EPA's civil enforcement program will focus on the national enforcement initiatives, including in communities that may be disproportionately exposed to risks and harm from pollutants in their environment. The National Enforcement Initiatives were selected for FY 2014-2016 through a collaborative selection process completed in FY 2013. These national initiatives address problems that remain complex and challenging. Current initiatives keep raw

sewage and contaminated stormwater out of our nation's waters, prevent animal waste from contaminating surface and ground waters, and address violations of the Clean Air Act New Source Review/Prevention of Significant Deterioration requirements and Air Toxics regulations, RCRA violations at mineral processing facilities, and multi-media problems resulting from energy extraction activities. Information on initiatives, regulatory requirements, enforcement alerts and EPA results will be made available to the public and the regulated community through websites.⁴⁹

As with the compliance monitoring program, the EPA's enforcement program will benefit from synchronizing data systems to receive electronic transmissions from regulated facilities and by having more complete and timely data to better evaluate which enforcement approaches are most effective. This utilizes the transformative information system-based work of the larger E-Enterprise business strategy. The EPA and states will be able to better prioritize enforcement resources in those areas where they are most needed such as complex industrial operations requiring physical inspection, repeat violators, cases involving significant harm to human health or the environment, or potential criminal violations.

The Civil Enforcement program also will focus on how tools, such as fence line monitoring, can be applied in enforcement settlements, such as in the 2014 CAA settlement with Flint Hills Resources Port Arthur, LLC, in order to make more data available, as well as using independent third parties to monitor compliance with the settlement (e.g., as required in the BP Deepwater Horizon Settlement (DOJ Press release, November 15, 2012).

Fence line monitoring can be used to monitor the environment immediately surrounding a regulated entity, thereby providing the community with information about local emissions. In 2014, EPA reduced dangerous air toxics released from industrial flares at refineries and chemical plants by requiring companies to implement monitoring and pollution control technologies. These efforts are providing minority and low-income communities with monitoring data, while reducing toxic air pollution for residents living near the facilities.

The Civil Enforcement program also provides support for other priority programs, including the Environmental Justice program and the Chesapeake Bay program. For example, in FY 2014, 36 percent of the enforcement cases initiated by the EPA addressed violations that had occurred in locations with potential environmental justice concerns and many other cases reduced pollution to the benefit of those communities. In addition, the civil enforcement program is helping to implement a compliance and enforcement strategy for the Chesapeake Bay, providing strong oversight to ensure existing regulations are complied with consistently and in a timely manner, and making data on government and facility performance in the Bay watershed accessible and understandable to the public.

In FY 2016, the proposed budget for civil enforcement is \$188.8 million.

⁴⁹ For more information, refer to <http://www.epa.gov/compliance/monitoring/index.html>.

Criminal Enforcement

Criminal enforcement underlies the EPA's commitment to pursuing the most serious pollution violations. The EPA's criminal enforcement program investigates and helps prosecute environmental violations that involve intentional, deliberate, or criminal behavior on the part of the violator. The Criminal Enforcement program deters violations of environmental laws and regulations by demonstrating that the regulated community will be held accountable through jail sentences and criminal fines. Bringing criminal cases to court sends a strong deterrence message to potential violators, enhances aggregate compliance with laws and regulations, and protects communities at risk. In FY 2014, the conviction rate for criminal defendants was 95 percent.

To efficiently maximize resources, in FY 2016 the program will reduce case work in lower priority areas and will use its special agent capacity to identify and investigate cases with the most significant environmental, human health and deterrence impact. The EPA's criminal enforcement program will target cases across all media that involve serious harm or injury; hazardous or toxic releases; ongoing, repetitive, or multiple releases; serious documented exposure to pollutants; and violators with significant repeat or chronic noncompliance or prior criminal conviction.

In FY 2016, the proposed budget for Criminal Enforcement is \$59.6 million.

Forensics Support

The Forensics Support program provides specialized scientific and technical support for the nation's most complex civil and criminal enforcement cases, as well as technical expertise for agency compliance efforts. The work of the EPA's National Enforcement Investigations Center (NEIC) is critical to determining non-compliance and building viable enforcement cases. The NEIC maintains a sophisticated chemistry laboratory and a corps of highly trained inspectors and scientists with a wide range of environmental scientific expertise. In FY 2016, NEIC will continue to function under rigorous International Standards Organization 17025 requirements for environmental data measurements to maintain its accreditation.

In FY 2016, the proposed budget for Forensics Support is \$15.5 million.

Superfund Enforcement

The EPA's Superfund Enforcement program protects communities by ensuring that responsible parties conduct or pay for cleanups of hazardous waste sites, preserving federal dollars for sites where there are no viable contributing parties. Superfund enforcement uses an "enforcement first" approach that maximizes the participation of liable and viable parties in performing and paying for cleanups in both the remedial and removal programs. The EPA will focus Superfund enforcement resources to support Potentially Responsible Party (PRP) searches, cleanup settlements, and cost recovery. Similarly, the Superfund Federal Facilities enforcement program will take action to ensure that federal agencies actively and appropriately manage their own cleanup efforts with the legally-required EPA oversight. The agency will continually assess its

priorities and embrace new approaches that can help achieve its goals more efficiently and effectively.

Enforcement authorities play a unique role under the Superfund program. The authorities are used to ensure that responsible parties conduct a majority of the cleanup actions and reimburse the federal government for cleanups financed by federal resources. In tandem with this approach, various reforms have been implemented to increase fairness, reduce transaction costs, promote economic development and make sites available for appropriate reuse. Ensuring that responsible parties cleanup sites ultimately reduces direct human exposures to hazardous pollutants and contaminants, provides for long-term human health protections and makes contaminated properties available for reuse.

The Department of Justice supports the EPA's Superfund enforcement program through negotiations and judicial actions to compel PRP cleanup and litigation to recover Trust Fund monies. The agency will provide \$21.8 million to the Department of Justice through an Interagency Agreement. This partnership to ensure polluters pay has been very effective. In FY 2014, the Superfund Enforcement program secured private party commitments exceeding \$600 million. This amount includes three components: PRPs who committed to perform future response work with an estimated value of more than \$454 million; who agreed to reimburse the agency for \$58 million in past costs; and who were billed by the EPA for \$89 million in oversight costs. The EPA also works to ensure that required legally enforceable institutional controls and financial assurance instruments are in place and adhered to at Superfund sites and at facilities subject to RCRA Corrective Action to ensure the long-term protectiveness of cleanup actions.

In FY 2016 the proposed budget for the Superfund and Federal Facilities enforcement programs is \$163.9 million.

Partnering with States and Tribes

In FY 2016, the Enforcement and Compliance Assurance program will sustain its environmental enforcement partnerships with states and tribes and work to strengthen their ability to address environmental and public health threats. In FY 2016, the Enforcement and Compliance Assurance program will provide \$23.0 million in grants to the states and tribes to assist in the implementation of compliance and enforcement provisions of the Toxic Substances Control Act (TSCA) and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). These grants support state and tribal compliance activities to protect human health and the environment from harmful chemicals and pesticides. Under the Pesticides Enforcement Grant program, the EPA will continue to provide resources to states and Indian Tribes to conduct FIFRA compliance inspections and take appropriate enforcement actions. The Toxic Substances Compliance Grants protect the public and the environment from PCBs, asbestos, and lead-based paint.

**Environmental Protection Agency
2016 Annual Performance Plan and Congressional Justification**

Table of Contents - Science and Technology

Resource Summary Table	85
Program Area: Clean Air and Climate.....	88
Clean Air Allowance Trading Programs.....	89
Climate Protection Program.....	94
Federal Support for Air Quality Management	96
Federal Vehicle and Fuels Standards and Certification	98
Program Area: Indoor Air and Radiation.....	106
Indoor Air: Radon Program	107
Reduce Risks from Indoor Air	109
Radiation: Protection	111
Radiation: Response Preparedness	113
Program Area: Enforcement	115
Forensics Support.....	116
Program Area: Homeland Security	118
Homeland Security: Critical Infrastructure Protection	119
Homeland Security: Preparedness, Response, and Recovery	126
Homeland Security: Protection of EPA Personnel and Infrastructure.....	132
Program Area: IT / Data Management / Security	134
IT / Data Management	135
Program Area: Operations and Administration.....	138
Facilities Infrastructure and Operations.....	139
Program Area: Pesticides Licensing	141
Pesticides: Protect Human Health from Pesticide Risk	142
Pesticides: Protect the Environment from Pesticide Risk.....	145
Pesticides: Realize the Value of Pesticide Availability	149
Program Area: Research: Air, Climate and Energy	152
Research: Air, Climate and Energy	153
Program Area: Research: Safe and Sustainable Water Resources.....	159
Research: Safe and Sustainable Water Resources	160
Program Area: Research: Sustainable Communities.....	168

Research: Sustainable and Healthy Communities	169
Program Area: Research: Chemical Safety and Sustainability	175
Research: Chemical Safety and Sustainability	176
Human Health Risk Assessment	182
Program Area: Water: Human Health Protection	188
Drinking Water Programs	189
Program Area: Climate Protection	192
Water Quality Research and Support Grants	193

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

**APPROPRIATION: Science & Technology
Resource Summary Table
(Dollars in Thousands)**

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Science & Technology				
Budget Authority	\$779,049.0	\$734,648.0	\$769,088.0	\$34,440.0
Total Workyears	2,208.9	2,244.6	2,201.7	-42.9

*For ease of comparison, Superfund transfer resources for the audit and research functions are shown in the Superfund account.

Bill Language: Science & Technology

For science and technology, including research and development activities, which shall include research and development activities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980; necessary expenses for personnel and related costs and travel expenses; procurement of laboratory equipment and supplies; and other operating expenses in support of research and development, \$769,088,000, to remain available until September 30, 2017. (Department of the Interior, Environment, and Related Agencies Appropriations Act, 2015.)

**Program Projects in S&T
(Dollars in Thousands)**

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Clean Air and Climate				
Clean Air Allowance Trading Programs	\$8,220.0	\$8,298.0	\$7,808.0	(\$490.0)
Climate Protection Program	\$11,794.6	\$8,018.0	\$8,124.0	\$106.0
Federal Support for Air Quality Management	\$5,689.7	\$6,923.0	\$8,493.0	\$1,570.0
Federal Vehicle and Fuels Standards and Certification	\$84,638.8	\$93,302.0	\$100,419.0	\$7,117.0
Subtotal, Clean Air and Climate	\$110,343.1	\$116,541.0	\$124,844.0	\$8,303.0
Indoor Air and Radiation				
Indoor Air: Radon Program	\$219.3	\$198.0	\$0.0	(\$198.0)
Radiation: Protection	\$2,586.6	\$1,984.0	\$2,160.0	\$176.0
Radiation: Response Preparedness	\$4,162.2	\$3,526.0	\$4,043.0	\$517.0
Reduce Risks from Indoor Air	\$245.5	\$289.0	\$412.0	\$123.0
Subtotal, Indoor Air and Radiation	\$7,213.6	\$5,997.0	\$6,615.0	\$618.0

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Enforcement				
Forensics Support	\$14,088.7	\$13,669.0	\$14,398.0	\$729.0
Homeland Security				
Homeland Security: Critical Infrastructure Protection	\$10,207.3	\$10,324.0	\$11,871.0	\$1,547.0
Homeland Security: Preparedness, Response, and Recovery	\$27,840.5	\$26,256.0	\$25,674.0	(\$582.0)
Homeland Security: Protection of EPA Personnel and Infrastructure	\$545.0	\$542.0	\$605.0	\$63.0
Subtotal, Homeland Security	\$38,592.8	\$37,122.0	\$38,150.0	\$1,028.0
IT / Data Management / Security				
IT / Data Management	\$3,860.8	\$3,089.0	\$3,196.0	\$107.0
Operations and Administration				
Facilities Infrastructure and Operations	\$75,013.3	\$68,339.0	\$79,170.0	\$10,831.0
Pesticides Licensing				
Pesticides: Protect Human Health from Pesticide Risk	\$3,660.5	\$3,197.0	\$3,266.0	\$69.0
Pesticides: Protect the Environment from Pesticide Risk	\$1,960.5	\$2,316.0	\$3,896.0	\$1,580.0
Pesticides: Realize the Value of Pesticide Availability	\$517.2	\$514.0	\$529.0	\$15.0
Subtotal, Pesticides Licensing	\$6,138.2	\$6,027.0	\$7,691.0	\$1,664.0
Research: Air, Climate and Energy				
Research: Air, Climate and Energy	\$99,429.8	\$91,906.0	\$100,342.0	\$8,436.0
Research: Safe and Sustainable Water Resources				
Research: Safe and Sustainable Water Resources	\$120,085.3	\$107,434.0	\$111,022.0	\$3,588.0
Research: Sustainable Communities				
Research: Sustainable and Healthy Communities	\$160,800.7	\$149,975.0	\$139,172.0	(\$10,803.0)
Research: Chemical Safety and Sustainability				
Human Health Risk Assessment	\$37,813.5	\$39,423.0	\$39,277.0	(\$146.0)
Research: Chemical Safety and Sustainability				
Endocrine Disruptors	\$15,833.3	\$16,253.0	\$15,417.0	(\$836.0)
Computational Toxicology	\$29,481.1	\$21,409.0	\$33,775.0	\$12,366.0

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Research: Chemical Safety and Sustainability (other activities)	\$54,153.8	\$49,845.0	\$52,253.0	\$2,408.0
Subtotal, Research: Chemical Safety and Sustainability	\$99,468.2	\$87,507.0	\$101,445.0	\$13,938.0
Subtotal, Research: Chemical Safety and Sustainability	\$137,281.7	\$126,930.0	\$140,722.0	\$13,792.0
Water: Human Health Protection				
Drinking Water Programs	\$3,750.9	\$3,519.0	\$3,766.0	\$247.0
Congressional Priorities				
Water Quality Research and Support Grants	\$2,450.1	\$4,100.0	\$0.0	(\$4,100.0)
Subtotal, Water Quality Research and Support Grants	\$2,450.1	\$4,100.0	\$0.0	(\$4,100.0)
TOTAL, EPA	\$779,049.0	\$734,648.0	\$769,088.0	\$34,440.0

*For ease of comparison, Superfund transfer resources for the audit and research functions are shown in the Superfund account.

Program Area: Clean Air and Climate

Clean Air Allowance Trading Programs

Program Area: Clean Air and Climate

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$18,756.3	\$18,231.0	\$18,378.0	\$147.0
<i>Science & Technology</i>	\$8,220.0	\$8,298.0	\$7,808.0	(\$490.0)
Total Budget Authority / Obligations	\$26,976.3	\$26,529.0	\$26,186.0	(\$343.0)
Total Workyears	77.1	72.8	71.4	-1.4

Program Project Description:

This program develops, implements, assesses, and provides regulatory, modeling, and emissions monitoring support for programs that address major regional and national air issues from the power sector and other large stationary sources. Clean air allowance trading programs help implement the National Ambient Air Quality Standards (NAAQS) and reduce toxics emissions and regional haze. Pollutants reduced include sulfur dioxide (SO₂), nitrogen oxides (NO_x), ground-level ozone, fine particulate matter (PM_{2.5}), and, as a co-benefit of SO₂ and NO_x emission reductions, mercury.

Carried long distances by wind and weather, power plant emissions of SO₂ and NO_x travel across state lines. As the pollution is transported, it reacts in the atmosphere and contributes to ground-level ozone (smog) and fine particles,¹ which are associated with significant human health effects including mortality and morbidity. Researchers have associated fine particle and smog exposure with adverse health effects in numerous toxicological, clinical and epidemiological studies.^{2,3} Transported SO₂ and NO_x emissions are significant contributors to nonattainment in many states in the eastern half of the U.S. and under the “good neighbor” provision of the Clean Air Act (CAA),⁴ upwind states must share responsibility for achieving air quality goals.

Operating programs in FY 2016 will include the Cross-State Air Pollution Rule (CSAPR). CSAPR requires 28 states in the eastern half of the United States to significantly improve air quality by reducing power plant emissions that cross state lines and contribute to ground-level ozone and fine particle pollution in other states. The rule replaces the Clean Air Interstate Rule (CAIR) as required

¹ Seinfeld, John H. and Spyros N. Pandis. Atmospheric Chemistry and Physics: From Air Pollution to Climate Change. John Wiley & Sons, Inc. (New York). 1998. Describes pollution transport and formation of ground-level ozone and fine particles in the atmosphere from sulfur dioxide and nitrogen oxides emissions.

² U.S. Environmental Protection Agency (U.S. EPA). 2009. Integrated Science Assessment for Particulate Matter (Final Report). EPA-600-R-08-139F. National Center for Environmental Assessment – RTP Division. December. Available on the Internet at <<http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=216546>>. Also, U.S. EPA. Provisional Assessment of recent Studies on the Health Effects of Particulate Matter Exposure. U.S. Environmental Protection Agency, Washington, D.C. EPA/600R-12/056, 2012. Available on the Internet at <<http://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=247132>>.

³ U.S. Environmental Protection Agency (U.S. EPA). 2013. Integrated Science Assessment for Ozone and Related Photochemical Oxidants. EPA/600/R-10/076F. Research Triangle Park, NC: U.S. EPA. February. Available on the Internet at <http://oaspub.epa.gov/eims/eimscomm.getfile?p_download_id=511347>.

⁴ Clean Air Act § 110(a)(2)(D), 40 U.S.C. § 7410(a)(2)(D).

by a 2008 decision of the U.S. Court of Appeals for the District of Columbia Circuit. (CAIR will be sunsetted in 2015 after its implementation for the 2014 compliance year is complete.) The regional air programs are designed to control the significant contributions of power plant emissions of SO₂ and NO_x to air quality problems (i.e., nonattainment and interference with maintenance of ozone and PM_{2.5} standards) in downwind areas.

The EPA is responsible for managing the Clean Air Status and Trends Network (CASTNET), a long-term ambient and deposition monitoring network, established in 1987, which serves as the nation's primary source for atmospheric data on the dry component of acid deposition, rural ground-level ozone, and other forms of particulate and gaseous air pollution. Used in conjunction with the National Atmospheric Deposition Program (NADP) and other networks, CASTNET's long-term datasets and data products are used to determine the effectiveness of national and regional emission control programs through monitoring geographic patterns and temporal trends in ambient air quality and atmospheric deposition in non-urban areas of the country. Maintaining the CASTNET monitoring network continues to be critical for assessing the Acid Rain Program and regional programs that control transported emissions (thereby reducing secondary pollutant formation of ozone and fine particles). In FY 2016, CASTNET's rural ozone monitoring will contribute to implementation of the ozone NAAQS and decisions regarding the agency's proposal to strengthen current ozone standards.⁵

Surface water chemistry is a direct indicator of the environmental effects of acid deposition and enables assessment of how water bodies and aquatic ecosystems are responding to reductions in sulfur and nitrogen emissions. Surface water chemistry is also indicative of how water bodies and ecosystems are responding to climate change and other terrestrial factors. Two EPA-administered programs, the Temporally Integrated Monitoring of Ecosystems (TIME) program and the Long-Term Monitoring (LTM) program, were specifically designed to assess whether the 1990 Clean Air Act Amendments have been effective in reducing the acidity of surface waters in New England, the Adirondack Mountains, the Northern Appalachian Plateau (including the Catskill and Pocono mountains), and the Blue Ridge region (including streams in western Pennsylvania). Both programs are operated cooperatively with numerous partners in state agencies, academic institutions, and other federal agencies.

The TIME/LTM surface water chemistry monitoring program provides field measurements for understanding biogeochemical changes in sulfur, nitrogen, acid neutralizing capacity (ANC), aluminum, and carbon in streams and lakes in relation to changing pollutant emissions as well as for the emerging area of climate change detection and ecological response. The TIME/LTM program is one of the longest running projects in EPA history, providing an important long-term dataset based on sampling and measurements that go back to 1983.

FY 2016 Activities and Performance Plan:

Reducing emissions of SO₂ and NO_x remains a crucial component of the EPA's strategy for improving air quality. Emissions of SO₂ and NO_x can be chemically transformed into sulfate and nitrates, tiny particles that, when inhaled, can cause serious respiratory problems and may lead to premature mortality. Winds can carry sulfates and nitrates hundreds of miles from the emitting

⁵ 79 FR 75233 (December 17, 2014).

source. These same small particles also are a main pollutant that impairs visibility across large areas of the country, particularly damaging in national parks known for their scenic views. Nitrogen oxides emissions also contribute substantially to the formation of ground-level ozone which, when inhaled in sufficient concentrations, can cause serious respiratory problems.

In FY 2016, the EPA will:

- Assure the continuation of ongoing NO_x and SO₂ emission reductions from power plants in the eastern half of the U.S. by implementing CSAPR.
- Provide assistance to states in developing and implementing state plans and rules for NO_x and SO₂ to control the transport of emissions and pollutants that significantly contribute to nonattainment or interference with maintenance of ozone and/or PM_{2.5} NAAQS in another state. Assist states in resolving issues related to source applicability, emissions monitoring, monitor certification, reporting, and permitting as desired by the affected states.
- Assist affected sources and states in complying with the EPA-administered emissions monitoring and reporting system supporting required continuous emissions monitoring systems (CEMS)⁶ to incorporate, process and quality assure additional data for power plants pursuant to the Mercury and Air Toxics Standards (MATS) Rule⁷ (*e.g.*, mercury monitor certification, mercury emissions, pertinent operating data, etc.) and the Carbon Pollution Standards for new, modified, and reconstructed power plants⁸ while operating and maintaining the system for emissions monitoring and reporting by clean air allowance trading programs. Maintain and modify, as needed, the operating infrastructure for implementation of clean air allowance trading and other programs (*e.g.*, MATS) using the EPA-administered emissions monitoring and reporting system for source compliance.
- Operate and maintain the EPA-administered clean air allowance trading systems. Conduct annual/seasonal reconciliation of facility emissions against allowances for compliance.
- Ensure effective and efficient operation of multi-state programs for controlling interstate emissions transport through ongoing maintenance and continuous improvement of the e-GOV infrastructure supporting the electronic emissions reporting, monitor certification, and compliance determination systems.
- Ensure accurate and consistent results for the programs. Successful air pollution control programs require accurate and consistent monitoring of source emissions and environmental results. Work will continue on performance specifications and investigating monitoring alternatives and methods to improve the efficiency of monitor certification and emissions data reporting.

⁶ 40 C.F.R. pt. 75 (Continuous Emission Monitoring).

⁷ 40 C.F.R. pt. 63, subpt. UUUUU (National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units).

⁸ See 79 FR 1429 (January 8, 2014); 79 FR 34960 (June 18, 2014).

- Continue quality assurance, analysis, and reporting of environmental data from the CASTNET deposition/rural ozone and TIME/LTM surface water monitoring networks. Analyze and assess trends in sulfur and nitrogen deposition, rural ozone concentrations, surface water quality, and other indicators of ecosystem health and ambient air quality in non-urban areas of the U.S.
- Work with states to develop emission reduction programs to comply with CAA Section 110(a)(2)(D) requirements. This may include regulations for reducing the interstate transport of NO_x emissions to address upwind states' significant contribution to nonattainment and interference with maintenance of the 2008 ozone NAAQS in downwind states. The EPA will work with states to create flexible approaches, such as emissions averaging and trading programs, where they potentially could be more cost-effective than application of source-specific emission standards as well as to assess the feasibility of air pollution emission controls.

In FY 2016, the program will continue to provide analytical support for the interagency National Acid Precipitation Assessment Program (NAPAP). NAPAP coordinates federal acid deposition research and monitoring of emissions, acidic deposition, and their effects, including assessment of the costs and benefits of Title IV.

In FY 2016, the program will continue to manage the CASTNET ambient monitoring program and the TIME/LTM program for monitoring surface water chemistry and aquatic ecosystem response in sensitive areas of the U.S.⁹

Performance Targets:

Work under this program also supports performance results in the Clean Air Allowance Trading Program under the Environmental Program & Management Tab and can be found in the Eight Year Performance Array in the Program Performance and Assessment section.

The EPA tracks the change in nitrogen deposition and sulfur deposition to assess the effectiveness of the Acid Rain and related programs with performance targets set for every three years. Please visit <http://www.epa.gov/airmarkets/progress/progress-reports.html> for additional information.

The EPA tracks changes in surface water acidity in lakes and streams in acid sensitive regions to assess change in the number of chronically acidic water bodies. This is a long-term measure with a performance target set for 2030. Please visit <http://www.epa.gov/airmarkets/progress/progress-reports.html> for additional information.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$490.0) Working within a constrained budget, this program change reflects a reduction that may cause the modest delay of some out-year planned modernizations

⁹ For additional information on CASTNET, please visit <http://epa.gov/castnet/javaweb/index.html>. For additional information on TIME/LTM, please visit <http://www.epa.gov/airmarkets/assessments/TIMELTM.html>.

of software tools and web-based technology used to provide program stakeholders (e.g., industry, state and local air agencies, environmental organizations, health officials, and the public) online access to allowances, emissions, and other program operating data.

Statutory Authority:

Clean Air Act, 42 U.S.C. §§ 7401-7671q.

Climate Protection Program

Program Area: Clean Air and Climate

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Address Climate Change

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$90,702.3	\$95,436.0	\$109,625.0	\$14,189.0
<i>Science & Technology</i>	<i>\$11,794.6</i>	<i>\$8,018.0</i>	<i>\$8,124.0</i>	<i>\$106.0</i>
Total Budget Authority / Obligations	\$102,496.9	\$103,454.0	\$117,749.0	\$14,295.0
Total Workyears	222.7	222.1	234.1	12.0

Program Project Description:

The Climate Protection Program supports implementation and compliance with greenhouse gas (GHG) emission standards for light-duty and heavy-duty vehicles developed under the EPA’s Federal Vehicle and Fuels Standards and Certification program. Resources under this program also support compliance activities for implementing the National Highway Traffic Safety Administration’s (NHTSA) Corporate Average Fuel Economy (CAFE) standards. Under authorities contained in the Clean Air Act and the Energy Policy Act, the EPA is responsible for issuing certificates and ensuring compliance with both the GHG and CAFE standards. These historic programs, including the standards for Model Years 2012-2025 will save American consumers about \$1.7 trillion in fuel costs, decrease the nation’s fuel consumption by 12.2 billion barrels of fuel and reduce more than 6 billion metric tons of greenhouse gas emissions over the life of the vehicles.

FY 2016 Activities and Performance Plan:

Resources under this program will support implementation and compliance activities associated with the EPA’s GHG and NHTSA’s fuel economy standards for light-duty and heavy-duty vehicles and engines. Resources will support the following activities:

Certification and Compliance – Implementation of the first-ever GHG emission standards for light-duty and heavy-duty vehicles and engines is significantly increasing the EPA’s certification and compliance workload. These new GHG emission standards will not only result in a changing fleet of vehicles but also will introduce numerous innovative features into the vehicle certification process that provide greater flexibility for manufacturers in how they comply with the standards. These features include new and more comprehensive trading programs, credits for off-cycle emission reductions, and new federal test procedures. Heavy-duty vehicle and engine certifications alone are expected to increase by 170 percent. Information technology systems (which provide an efficient means for manufacturers to apply for and receive certificates of conformity) will also need to be updated to reflect the revised compliance and certification requirements of the new light-duty and heavy-duty GHG standards.

Vehicle and Engine Testing Services - Over the past several years, the EPA has invested significant levels of resources to upgrade its vehicle and engine testing capacity and capability at its National Vehicle and Fuel Emissions Laboratory in order to implement new standards for fuels, vehicle, and engine emissions. This includes adding new 4-wheel drive dynamometers and analytical systems needed to conduct certification testing of hybrid vehicles and vehicles operating on renewable fuels; adding a new cold temperature test facility needed to confirm that new light-duty vehicles are in compliance with mobile source air toxics emissions standards; adding a new hot temperature testing facility needed to confirm that new light-duty vehicles are in compliance with emission standards while operating in high temperatures and using air conditioning; adding a new plug-in hybrid/electric vehicle test facility to verify manufacturer fuel economy label values, such as electric range and electricity consumption for plug-in hybrid electric vehicle (PHEV) and electric vehicle (EV) vehicles; and building and equipping a new heavy-duty certification test facility to address GHG emissions from heavy-duty vehicles. In FY 2016, staff will conduct and run testing operations and develop new test procedures in these new test cells. Because this testing can reveal instances of non-compliant design, it helps ensure a level playing field between foreign and domestic manufacturers and can lead to opportunities for American manufacturers to profit from developing innovative solutions.

Performance Targets:

Work under this program also supports performance results in the Climate Protection Program under the Environmental Program and Management Tab and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$151.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$45.0) This program change reflects savings that will be achieved through the use of strategic sourcing and the use of more efficient contract mechanisms in the procurement of laboratory services. Efficiencies will include volume discounts on purchases made with other federal facilities in the Ann Arbor and Detroit, MI area and the use of bulk purchasing for laboratory supplies.

Statutory Authority:

CAA Amendments, 42 U.S.C. 7401 et seq. - Sections 102, 103, 104, and 108; Energy Policy Act of 2005; Energy Independence and Security Act of 2007; Pollution Prevention Act, 42 U.S.C. 13101 et seq. - Sections 6602, 6603, 6604, and 6605; NEPA, 42 U.S.C. 4321 et seq. - Section 102; Global Climate Protection Act, 15 U.S.C. 2901 - Section 1103.

Federal Support for Air Quality Management

Program Area: Clean Air and Climate

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$121,018.7	\$120,572.0	\$157,339.0	\$36,767.0
<i>Science & Technology</i>	<i>\$5,689.7</i>	<i>\$6,923.0</i>	<i>\$8,493.0</i>	<i>\$1,570.0</i>
Total Budget Authority / Obligations	\$126,708.4	\$127,495.0	\$165,832.0	\$38,337.0
Total Workyears	786.9	785.1	842.0	56.9

Program Project Description:

Federal support for the criteria pollutant and air toxics programs includes a variety of tools to help characterize ambient air quality and the level of risk to the public from air pollutants and to help measure national progress toward improving air quality and reducing associated risks. The program supports development of State Implementation Plans (SIPs) through modeling and other tools and assists states in implementing, maintaining, and enforcing the National Ambient Air Quality Standards (NAAQS) for criteria pollutants. The program also develops and provides information, training, and tools to assist state, Tribal, and local agencies, as well as communities, to reduce air toxics emissions and risk specific to their local areas. Finally, the program includes activities related to the Clean Air Act's stationary source residual risk program, which involves an assessment of source categories subject to Maximum Achievable Control Technology (MACT) standards to determine if more stringent standards are needed to further reduce the risks to public health (taking into account developments in practices, processes, and control technologies).

FY 2016 Activities and Performance Plan:

As part of implementing revised NAAQS, the EPA will continue providing state and local governments with assistance in developing SIPs during FY 2016. The EPA also will help states identify the most cost-effective control options available and provide guidance, as needed, to assist them with attaining the NAAQS. The EPA will ensure national consistency in how conformity determinations are conducted across the U.S. and the agency will work with state and local air quality agencies to ensure that PM hot-spot analyses are conducted in a manner consistent with the transportation conformity regulation and guidance.

In FY 2016, the EPA will work with partners to continue improving emission factors and inventories, including the National Emissions Inventory. This effort includes gathering improved activity data and using geographic information systems and satellite remote sensing, where possible, for key point, area, mobile, and fugitive sources, and global emission events. The EPA is working on improving monitoring systems to fill data gaps and to get a better assessment of actual population exposure to toxic air pollution. EPA laboratories will continue to provide Quality Assurance proficiency testing for federal and commercial laboratories that produce data from

PM_{2.5} air monitoring systems to ensure quality data for use in determining air quality.

Communities do not always have sufficient air quality data at a local level to understand and act upon existing risks. In FY 2016, the EPA will invest resources to help enable environmentally overburdened and underserved communities to monitor their air quality through investments in monitoring equipment and technical outreach.

Performance Targets:

Work under this program also supports performance results in the Federal Support for Air Quality Management Program under the Environmental Program and Management Tab and can be found in the Eight Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$122.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$1,448.0) This program change reflects an increase in support for the agency's Advanced Monitoring investment to develop guidance related to air quality monitoring.

Statutory Authority:

CAA (42 U.S.C. 7401-7661f).

Federal Vehicle and Fuels Standards and Certification

Program Area: Clean Air and Climate

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Address Climate Change; Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Science & Technology</i>	\$84,638.8	\$93,302.0	\$100,419.0	\$7,117.0
Total Budget Authority / Obligations	\$84,638.8	\$93,302.0	\$100,419.0	\$7,117.0
Total Workyears	298.5	300.5	304.5	4.0

Program Project Description:

Under the Federal Vehicle and Fuels Standards and Certification program, the EPA develops, implements, and ensures compliance with national standards to reduce mobile source related air pollution from light-duty cars and trucks, heavy-duty trucks and buses, nonroad engines and vehicles, and from the fuels that power these engines. The program also evaluates emission control technology and provides state, Tribal, and local air quality managers and transportation planners with access to information on transportation programs and incentive-based programs. As part of ensuring compliance with national standards, the program tests vehicles, engines, and fuels, and establishes test procedures for federal emissions and fuel economy standards.

The National Vehicle and Fuel Emissions Laboratory (NVFEL) will continue to ensure air quality benefits and fair competition in the marketplace by conducting testing operations on motor vehicles, heavy-duty engines, nonroad engines, and fuels to certify that all vehicles, engines, and fuels that enter the U.S. market comply with all federal clean air and fuel economy standards. The NVFEL conducts vehicle emission tests as part of pre-production tests, certification audits, in-use assessments, and recall programs to ensure compliance with mobile source clean air programs.

The EPA works with states and local governments to ensure the technical integrity of the mobile source control emission benefits in State Implementation Plans (SIPs) and transportation conformity determinations. The EPA also develops and provides information and tools to assist state, local, and Tribal agencies, as well as communities, to reduce air toxics emissions and risks specific to their local areas. Reductions in emissions of mobile source air toxics, such as components of diesel exhaust, are achieved through establishing national emissions standards and innovative partnership approaches working with state, local, and Tribal governments, as well as a variety of stakeholder groups.

FY 2016 Activities and Performance Plan:

Climate Change

In FY 2016, the EPA will continue to take action related to mobile sources to address climate change by targeting the transportation sector's largest contributors to greenhouse gas (GHG) emissions. These efforts will include implementing the harmonized fuel economy and GHG emission standards for light-duty (LD) vehicles (two sets of standards for Model Years 2012-2016 and 2017-2025) and heavy-duty vehicles (Model Years 2014-2018). These standards were finalized by the EPA in coordination with the National Highway Traffic Safety Administration (NHTSA) and the EPA is responsible for implementing both the emission standards and significant aspects of the fuel economy standards. These new standards will save American consumers about \$1.7 trillion, decrease the nation's fuel consumption by 12.2 billion barrels of fuel and reduce more than 6 billion metric tons of greenhouse gas emissions over the life of the vehicles. The harmonized standards also will provide regulatory certainty to the marketplace and spur innovation in vehicle technology over the coming decade.

In March 2016, consistent with the President's Climate Action Plan, the EPA plans to finalize a second phase of GHG standards beyond Model Year 2018 medium- and heavy-duty vehicles. This second phase of regulations will build upon the success of the first phase for Model Years 2014-2018 and offer further opportunities to reduce greenhouse gas emissions, decrease the nation's oil use, and benefit consumers and businesses by reducing the cost of transporting goods while spurring job growth and innovation in the clean energy technology sector.

As part of the light-duty GHG standards for Model Years 2017-2025, the EPA committed to perform, in coordination with NHTSA and the California Air Resources Board (CARB), a Midterm Evaluation of the Model Year 2022-2025 GHG standards. The EPA is required to issue, jointly with NHTSA and CARB, a draft Technical Assessment Report no later than November 15, 2017, and the EPA must make a final determination on the appropriateness of the Model Year 2022-2025 standards by April 2018. To support the Midterm Evaluation, NVEEL is performing a comprehensive feasibility evaluation of advanced technologies, including testing on advanced engines, both naturally aspirated and downsized turbo-charged engines, as well as transmissions and various electrified vehicle technologies. This testing program will support the Technical Assessment Report, the development of which is expected to begin in late FY 2015 or early FY 2016.

The EPA also will continue work to assess GHG emissions from nonroad sources. The EPA is participating in the international forums for ocean-going vessels (International Maritime Organization-IMO) and aircraft (International Civil Aviation Organization-ICAO) to address GHG emissions from these sources. As part of the U.S. delegation to IMO, the EPA is developing a ship efficiency program for international shipping in coordination with the State Department and U.S. Coast Guard. The EPA also is coordinating its efforts with the Federal Aviation Administration (FAA) to develop GHG standards and testing procedures for aircraft at ICAO.

In FY 2016, the EPA will oversee compliance with vehicle fuel economy labeling requirements, which provide consumers with GHG as well as fuel economy information. The label enables

consumers to compare the energy and environmental impacts of both conventional and advanced technology vehicles, including electric vehicles, plug-in hybrid electric vehicles and hydrogen fuel cell vehicles. Consumers can use information on the label to make car-by-car comparisons to help save on fuel costs and reduce emissions.

In the fuels area, the EPA will continue to implement the Renewable Fuels Standard (RFS) program and to carry out several other actions required by the Energy Policy Act (EPAct) of 2005 and the Energy Independence and Security Act (EISA) of 2007. EISA dramatically expanded the renewable fuels provisions of EPAct and requires additional studies in various areas of renewable fuel use.

EISA requires that the EPA set an annual volume standard for renewable fuels and the 2017 RFS volume requirements are statutorily required to be promulgated in FY 2016. EISA also requires the EPA to develop a comprehensive lifecycle GHG methodology to implement the Act's GHG threshold requirements for the RFS. Producers of new and advanced biofuels regularly seek to qualify their fuels under RFS and the EPA will continue to apply its lifecycle analysis to such fuels to evaluate and determine eligibility for the program.

In FY 2016, the EPA will maintain oversight of the RFS program and continue to evaluate compliance with RFS provisions through its real-time reporting system, which is used to track shipments and trades of renewable fuel. This real-time tracking system handles 4,000 to 6,000 submissions per day, encompassing 30 thousand to 40 thousand transactions per day, and the generation of 1.3 billion Renewable Identification Numbers (RINs) per month. RINs are assigned to each gallon of renewable fuel generated, and recording RINs allows for an accurate tracking of the renewable fuel throughout the supply chain.

In FY 2016, the EPA will continue the commissioning of laboratory expansions made specifically to implement the Heavy-Duty 2010 engine emissions standards for mid-range compression ignition engines. The program also will commission the Heavy Duty Chassis Test Site to support the HD GHG standards.

In FY 2016, the EPA will continue to transition its Fuel and Fuel Additive Registration Reporting System to an interactive system. The Fuel and Fuel Additive Registration Reporting System is one of a handful of systems that is being included in the first set of offerings as part of the EPA's work to develop new customer-facing web services. The fuels and fuel additive universe includes approximately 630 fuel manufacturers, 1,250 additive manufacturers, 750 registered fuels, and 7,500 registered additives. The Electronic Fuels Unified Reporting project is reducing regulatory reporting burden through hours saved by reducing the number of reports and duplicate fields, reusing existing data elements in a company's profile, previous reports, or data entered in other data systems (EPA Moderated Transaction System (EMTS)), and providing an easy to use interface with guidance built into the web-form. The EPA anticipates a 10% time reduction under RFS and a 20% reduction under other fuels programs for an estimated 170 thousand annual hour reduction in time spent by regulated parties. Through the Electronic Fuels Unified Reporting project, the EPA will transform 66 quarterly and annual reports with some 1,300 data fields, currently submitted to the EPA in multiple formats, into a single quarterly web-form report. Manufacturers also will save through reduced costs in the preparation of the reports and the elimination of paper, ink, and delivery costs.

Criteria Pollutants and Mobile Source Air Toxics

In FY 2016, the EPA will continue to achieve results in reducing pollution from mobile sources, especially nitrogen oxide (NO_x) emissions associated with national emissions standards included in the EPA's National Clean Diesel Campaign. The Tier 2 Vehicle program, which took effect in 2004, resulted in new cars, SUVs, and pickup trucks that are 77 to 95 percent cleaner than 2003 models. The Clean Trucks and Buses program, which began in 2007, resulted in new highway diesel engines that are as much as 95 percent cleaner than previous models. For nonroad diesels, new fuel standards will reduce sulfur in off-highway diesel fuel by more than 99 percent facilitating more stringent engine standards. Implementation of the Locomotive and Marine Engines Rule's new fuel and engine requirements will reduce dangerous fine particle (PM) emissions by 90 percent and NO_x by 80 percent for newly-built locomotives and marine diesel engines. Recent standards to control emissions from ocean-going vessels will reduce NO_x emission rates by 80 percent and PM emission rates by 85 percent.

In 2014, the EPA finalized a comprehensive program (Tier 3) further reducing the impacts of motor vehicles on air quality and public health. The Tier 3 program considers the vehicle and its fuel as an integrated system, setting new vehicle emissions standards for hydrocarbons, NO_x and PM and lowering the sulfur content of gasoline beginning in 2017. The vehicle standards will reduce both tailpipe and evaporative emissions from passenger cars, light-duty trucks, medium-duty passenger vehicles, and some heavy-duty vehicles. The gasoline sulfur standard will enable more stringent vehicle emissions standards and will make emissions control systems more effective. Combined, in 2030 these measures are estimated to prevent about 40,000 premature deaths each year, reduce about 12 million tons of pollution a year, and prevent hundreds of thousands of respiratory illnesses, avoiding over 34,000 hospital admissions and about 4.8 million lost work days.

The EPA modeling shows that additional reductions to criteria pollutant emissions from light-duty vehicles will be key in helping areas maintain and attain the ozone, PM, and nitrogen dioxide (NO₂) National Ambient Air Quality Standards (NAAQS) and in reducing exposure to toxics for the millions of people living, working, or going to school near major roads. In FY 2016, the EPA will continue implementing the Tier 3 standards for light-duty vehicles. The EPA will begin certifying manufacturers' fleets in 2016 (vehicle Model Year 2017), which will require the EPA to deploy new data system capabilities and implement new test procedures and equipment to meet the requirements of the light-duty Tier 3 standards. Because the EPA is responsible for establishing the test procedures needed to measure tailpipe emissions and for verifying manufacturers' vehicle fuel economy data, the EPA will deploy its laboratory testing resources to ensure that new cars and trucks are in compliance with the more stringent Tier 3 emissions standards.

The following is a summary table of the benefits and costs of mobile source standards that have taken effect over the last decade.

2030 Annual Benefits and Costs for Six Major Rules							
2030	Light-duty Tier 2	Heavy-Duty 2007	Nonroad Diesel Tier 4	Locomotive & Marine Diesel	Oceangoing Vessel Strategy	Tier 3 Vehicle and Fuels	Total
NO_x (short tons)	2,800,000	2,600,000	738,000	795,000	1,200,000	330,000	8,463,000
PM_{2.5} (short tons)	36,000	109,000	133,000	27,000	143,000	7,900	455,900
VOC (short tons)	401,000	115,000	30,000	43,000	0	170,000	759,000
SO_x (short tons)	281,000	142,000	375,000	0	1,300,000	13,000	2,111,000
Total Cost (billion)	\$5.3	\$4.3	\$2.1	\$0.7	\$3.1	\$1.5	\$17
Total Monetized Benefits (billion)	\$25	\$66	\$83	\$11	\$110	\$9.2	\$304
Avoided Premature Mortality	4,300	8,300	12,000	1,300	13,000	960	39,860
Avoided Hospital Admissions	3,000	7,100	8,900	1,130	12,400	1,500	34,030
Avoided Lost Work Days	680,000	1,500,000	1,000,000	120,000	1,400,000	81,000	4,781,000

The EPA will continue working with the International Maritime Organization (IMO) and the International Civil Aviation Organization (ICAO) to develop further programs to control conventional pollutant emissions from marine and aircraft engines, respectively. The EPA will work with ICAO on its program to develop international action plans to reduce PM emissions from international civil aviation. In addition, the EPA will continue its efforts, in coordination with the Federal Aviation Administration (FAA), to evaluate endangerment from lead emissions from piston-engine aircraft using leaded aviation gasoline.

The EPA has achieved major improvements in the area of emissions modeling with the implementation of its new emission model called the Motor Vehicle Emissions Simulator (MOVES), which was upgraded in 2014. MOVES is greatly improving the EPA's ability to support the development of emission control programs, as well as providing support to states in their determination of program needs to meet air quality standards. In FY 2016, the EPA will continue incorporating new data gathered from emission testing programs and expanding the application of the model to include additional sources, toxic emissions, and the integration of nonroad sources into the MOVES architecture. A critical part of the EPA's support of states' emissions modeling efforts includes full disclosure of modeling information, comprehensive technical documentation on our website, and opportunities for training for stakeholders. This supports states in remaining current with the latest modeling and methodology that serves as the basis for protecting air quality in their communities.

The EPA will continue to ensure manufacturer compliance by conducting testing operations on motor vehicles, heavy-duty engines, nonroad engines, and fuels to certify that all vehicles, engines,

and fuels that enter the U.S. market comply with all federal clean air and fuel economy standards. The EPA will continue to conduct vehicle emission tests as part of pre-production tests, certification audits, in-use assessments, and recall programs to ensure compliance with mobile source clean air programs. Tests are conducted as a spot check comparison for motor vehicles, heavy-duty engines, nonroad engines, and fuels to: 1) certify that vehicles and engines meet federal air emission and fuel economy standards; 2) ensure engines comply with in-use requirements; and 3) ensure fuels, fuel additives, and exhaust compounds meet federal standards. In FY 2016, the EPA will continue to conduct testing activities for emissions, fuel economy, gasoline sulfur, reformulated gasoline, ultra-low sulfur diesel, alternative fuel vehicle conversion certifications, on-board diagnostics (OBD) evaluations, certification audits, and recall programs.

In FY 2016, the EPA anticipates reviewing and approving more than 5,000 vehicle and engine emissions certification requests, including light-duty vehicles, heavy-duty diesel engines, nonroad engines, marine engines, locomotives, and others. This represents a significant increase in demand for the EPA's certification services over the last two decades, due in part to the addition of certification requirements for stationary engines and for marine, other nonroad, and small spark-ignited engines. The EPA uses in-use emissions data provided by light-duty vehicle manufacturers as a means to measure compliance and determine if any follow-up evaluation or testing is necessary. Since 2000, light-duty vehicle manufacturers have been required, by regulation, to test a number of newer and older in-use vehicles and provide the data to the EPA. The EPA receives over 2,000 test results annually. The EPA reviews the data and determines if there are any specific vehicles, models, or manufacturers that are having problems complying with the emission standards. If there are a number of vehicles that are failing emissions in-use, the EPA will procure some of the same vehicles and perform further emission testing to assess whether there is an emission problem that needs to be addressed. The EPA also uses this information to determine if there are vehicle models that should be targeted for testing for the upcoming model year prior to granting the manufacturer a certificate of conformity which allows the manufacturer to sell vehicles in the U.S. By having manufacturers test in-use vehicles, the EPA has access to far more data than could be cost-effectively generated by the EPA on its own. This also allows the EPA to focus its testing efforts on vehicles that have already been screened and determined to have a potential problem.

As part of implementing the eight-hour ozone and fine particulate matter (PM_{2.5}) standards, the EPA will continue to provide state and local governments with substantial assistance in developing State Implementation Plans (SIPs) and making transportation conformity determinations during this period. In FY 2016, the EPA will continue to work with states and local governments to ensure the technical integrity of the mobile source emission estimates in the SIPs. The EPA will assist in identifying control options available and provide guidance, as needed. In addition, the EPA will ensure national consistency in how conformity determinations are conducted across the United States and in adequacy findings for motor vehicle emissions budgets in air quality plans, for use in conformity determinations.

The EPA will continue to provide assistance to state and local transportation and air quality agencies working on PM_{2.5} hot-spot analyses. This will help ensure that analyses use the latest available information and that a measure of consistency exists across the nation.

The EPA will continue partnering with states to support inspection and maintenance (I/M) programs that focus on in-use vehicles and engines. Basic and/or enhanced I/M testing is currently being conducted in over 30 states with technical and programmatic guidance from the EPA.

In FY 2016, the EPA will continue to work with a broad range of stakeholders to develop targeted, sector-based, and place-based incentives for diesel fleets (including construction, ports, and freight) to limit emissions from older, pre-2007 diesel engines not subject to stringent emissions standards. Because large numbers of people live near ports and are vulnerable to mobile source diesel emissions, the EPA will focus on designing a voluntary incentive program to reduce mobile source emissions in and around ports. The EPA will seek balanced stakeholder advice on the program design through the Mobile Source Technical Review Subcommittee of the Clean Air Act Advisory Committee. The EPA also is working with industry to bring about field testing and emissions testing protocols for a variety of innovative energy-efficient, emissions reducing technologies for the legacy fleet.

Performance Targets:

Measure	(N35) Limit the increase of Carbon Monoxide (CO) emissions from mobile sources compared to a 2000 baseline.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	1.52	1.69	1.86	2.02	2.19	2.36	2.53	2.70	Tons Emitted
Actual	1.52	1.69	1.86	2.02	2.19	2.36			

Measure	(O33) Cumulative millions of tons of Volatile Organic Compounds (VOCs) reduced since 2000 from mobile sources.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	1.54	1.71	1.88	2.05	2.23	2.4	2.57	2.74	Tons Reduced
Actual	1.54	1.71	1.88	2.05	2.23	2.4			

Measure	(O34) Cumulative millions of tons of Nitrogen Oxides (NOx) reduced since 2000 from mobile sources.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	3.05	3.39	3.73	4.07	4.41	4.74	5.08	5.42	Tons Reduced
Actual	3.05	3.38	3.73	4.07	4.41	4.74			

Measure	(P34) Cumulative tons of PM-2.5 reduced since 2000 from mobile sources.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	110,190	122,434	136,677	146,921	159,164	171,407	183,651	195,895	Tons Reduced
Actual	110,190	122,434	136,677	146,921	159,164	171,407			

Performance results for the reduction of toxicity-weighted emissions are supported by work in the Federal Stationary Source Regulations Program under Environmental Program and Management tab and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$2,078.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$2,508.0 / +2.0 FTE) This program change increases funding for technical and engineering expertise to help finalize the Heavy-Duty GHG Phase 2 Rulemaking (Model Years 2018 and beyond), particularly in the areas of technology assessment and vehicle simulation.
- (+\$2,234.0 / +2.0 FTE) This program change increases funding to address the growing program implementation workload, including the growing number of certificates to process annually, compliance oversight, management of credit trading programs, and data system management.
- (+\$297.0) This program change increases funding to operate and maintain the agency's vehicle and fuel emissions testing laboratory in Ann Arbor, Michigan.

Statutory Authority:

CAA (42 U.S.C. 7401-7661f); Motor Vehicle Information Cost Savings Act; Alternative Motor Fuels Act of 1988; National Highway System Designation Act; NEP Act, SAFETEA-LU of 2005; EPAct of 2005; EISA of 2007.

Program Area: Indoor Air and Radiation

Indoor Air: Radon Program

Program Area: Indoor Air and Radiation

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$1,790.0	\$3,055.0	\$3,386.0	\$331.0
<i>Science & Technology</i>	<i>\$219.3</i>	<i>\$198.0</i>	<i>\$0.0</i>	<i>(\$198.0)</i>
Total Budget Authority / Obligations	\$2,009.3	\$3,253.0	\$3,386.0	\$133.0
Total Workyears	9.3	10.6	10.6	0.0

Program Project Description:

Title III of the Toxic Substances Control Act (TSCA) authorized the EPA to undertake a variety of activities to address the public health risks posed by exposures to indoor radon. Under the statute, the EPA studied the health effects of radon, assessed exposure levels, set an action level, and advised the public of steps they can take to reduce exposure. The EPA also evaluated mitigation methods, instituted training centers to ensure a supply of competent radon service providers, established radon contractor proficiency programs, and assisted states with program development through the administration of a grants program.

This program, combined with the Indoor Air EPM Program, supported the National Center for Radiation Field Operations (NCRFO) in Las Vegas, Nevada. NCRFO is the only federal National Institute of Standards and Technology (NIST) radon laboratory.

FY 2016 Activities and Performance Plan:

There is no funding request for this program project in FY 2016. Over the 27 years of its existence, EPA's radon program has provided important guidance and significant funding to help states and other entities establish their own programs. Because exposure to radon gas continues to be an important risk to human health, at the federal level, the EPA will continue its headquarters program, including implementation of the Federal Radon Action Plan, a multi-year, multi-agency strategy for reducing the risk from radon exposure by leveraging existing federal housing programs and more efficiently implementing radon-related activities to have a greater impact on public health.

Performance Targets:

Work under this program also supports performance results in the Indoor Air: Radon Program under Environmental Programs and Management tab and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$198.0) This program change reflects the elimination of funding support in the Science and Technology Appropriation for radon testing.

Statutory Authority:

CAA Amendments of 1990; Radon Gas and Indoor Air Quality Research Act; Title IV of the SARA of 1986; TSCA, Section 6, Titles II and Title III (15 U.S.C. 2605 and 2641-2671); and IRAA, Section 306.

Reduce Risks from Indoor Air

Program Area: Indoor Air and Radiation

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$12,437.0	\$13,552.0	\$14,057.0	\$505.0
<i>Science & Technology</i>	<i>\$245.5</i>	<i>\$289.0</i>	<i>\$412.0</i>	<i>\$123.0</i>
Total Budget Authority / Obligations	\$12,682.5	\$13,841.0	\$14,469.0	\$628.0
Total Workyears	45.2	40.4	40.7	0.3

Program Project Description:

Title IV of the Superfund Amendments and Reauthorization Act of 1986 (SARA) gives the EPA broad authority to conduct and coordinate research on indoor air quality, develop and disseminate information, and coordinate efforts at the federal, state, and local levels.

The EPA will conduct field measurements and assessments and provide technical support for indoor air quality remediations, when requested. EPA’s indoor air quality technical assistance and training work is primarily focused toward Tribal communities and cost-effectively meets an identified need for federal assistance.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to provide limited support to Tribal communities with field measurements and assessments, upon request, and provide technical support for indoor air quality remediation.

Performance Targets:

Work under this program also supports performance results in the Reduce Risks from Indoor Air Program under the Environmental Program and Management Tab and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$66.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$57.0) This program change reflects an increase for technical support.

Statutory Authority:

CAA Amendments of 1990; Title IV of the SARA of 1986.

Radiation: Protection

Program Area: Indoor Air and Radiation

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Minimize Exposure to Radiation

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$8,945.8	\$8,576.0	\$9,517.0	\$941.0
<i>Science & Technology</i>	<i>\$2,586.6</i>	<i>\$1,984.0</i>	<i>\$2,160.0</i>	<i>\$176.0</i>
Hazardous Substance Superfund	\$1,992.1	\$1,985.0	\$2,180.0	\$195.0
Total Budget Authority / Obligations	\$13,524.5	\$12,545.0	\$13,857.0	\$1,312.0
Total Workyears	62.9	59.1	59.1	0.0

Program Project Description:

The EPA will continue to support waste site characterization and cleanup by providing field and fixed laboratory environmental radioanalytical data and technical support, radioanalytical training to state and federal partners, and by developing new and improved radioanalytical methods. This program supports the ongoing radiation protection capability at the National Analytical Radiation Environmental Laboratory (NAREL) in Montgomery, Alabama, and the National Center for Radiation Field Operations (NCRFO) in Las Vegas, Nevada. These two organizations for analytical and field operations provide radioanalytical and mixed waste testing, quality assurance, analysis of environmental samples, field radiological support, and field measurement systems and equipment to support site assessment, cleanup, and response activities in the event of a radiological accident or incident.

Together, these organizations provide technical support for conducting site-specific radiological characterizations and cleanups, using the best available science to develop risk assessments. They also develop guidance, in collaboration with the public, industry, states, tribes, and other governments, for cleaning up Superfund and other sites that are contaminated with radioactive materials.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA, in cooperation with states, tribes, and other federal agencies, will provide limited ongoing site characterization and analytical support for site assessment activities, remediation technologies, and measurement and information systems. The EPA also will provide analytical support to states and industry to assist with radon measurement accuracy efforts and conduct laboratory intercomparisons. The EPA also will provide training and direct site assistance, including limited field surveys and monitoring, laboratory analyses, health and safety, and risk assessment support at sites with actual or suspected radioactive contamination. Some of these sites are located near at-risk communities, emphasizing the Administration’s commitment to protect vulnerable communities.

NAREL and NCRFO will continue to support regional Superfund Remedial Project Managers and On-Scene Coordinators, providing laboratory and field-based radioanalytical and mixed waste analyses, technical services, guidance, and quality assurance oversight.

Performance Targets:

Work under this program also supports performance results in the Radiation Protection program under the Environmental Programs and Management Tab and can be found in the Eight Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$47.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$129.0) This program change reflects an increase in funds for the operation and maintenance of the *National Analytical Radiation Environmental Laboratory* (NAREL) and National Center for Radiation Field Operations (NCRFO).

Statutory Authority:

Atomic Energy Act (AEA) of 1954, as amended, 42 U.S.C. 2011 et seq. (1970), and Reorganization Plan #3 of 1970; Clean Air Act (CAA) Amendments of 1990; Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the SARA of 1986; Energy Policy Act (EPA) of 1992, P.L. 102-486; Executive Order 12241 of September 1980, National Contingency Plan, 3 CFR, 1980; National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR 300; Nuclear Waste Policy Act (NWPA) of 1982; Public Health Service Act (PHSA), as amended, 42 U.S.C. 201 et seq.; Safe Drinking Water Act (SDWA); Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978; Waste Isolation Pilot Plant (WIPP) Land Withdrawal Act of 1992.

Radiation: Response Preparedness

Program Area: Indoor Air and Radiation

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Minimize Exposure to Radiation

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$2,844.2	\$2,454.0	\$3,317.0	\$863.0
<i>Science & Technology</i>	<i>\$4,162.2</i>	<i>\$3,526.0</i>	<i>\$4,043.0</i>	<i>\$517.0</i>
Total Budget Authority / Obligations	\$7,006.4	\$5,980.0	\$7,360.0	\$1,380.0
Total Workyears	37.1	37.5	39.2	1.7

Program Project Description:

The National Analytical Radiation Environmental Laboratory (NAREL) in Montgomery, Alabama, and the National Center for Radiation Field Operations (NCRFO) in Las Vegas, Nevada, provide laboratory analyses, field sampling and analyses and direct scientific support to respond to radiological and nuclear incidents. This work includes measuring and monitoring radioactive materials and assessing radioactive contamination in the environment. This program comprises direct scientific field and laboratory activities to support preparedness, planning, training, and procedure development. In addition, selected personnel are members of the EPA’s Radiological Emergency Response Team (RERT), a component of the agency’s emergency response program, and are trained to provide direct expert scientific and technical assistance in the field. The EPA’s Office of Radiation and Indoor Air program’s RERT asset is identified as an agency Critical Infrastructure/Key Resource (CI/KR).

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA’s RERT will continue to provide support for federal radiological emergency response and recovery operations under the National Response Framework (NRF) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). They also will support field operations with fixed laboratory and limited mobile laboratory analyses to provide rapid and accurate radionuclide analyses of environmental samples.¹⁰

In FY 2016, NAREL and NCRFO will continue to develop rapid deployment capabilities to ensure that field teams are ready to provide scientific data, analyses, and updated analytical techniques for radiation emergency response programs across the agency. Both organizations also will maintain limited readiness for radiological emergency responses; participate in the most critical emergency exercises; provide on-site scientific support to state radiation, solid waste, and health programs that regulate radiation remediation; participate in the Protective Action Guidance (PAG) development and application; and respond, as required, to radiological incidents.

¹⁰ Additional information can be accessed at: <http://www.epa.gov/radiation/rert/>

Performance Targets:

Work under this program also supports performance results in the Radiation: Response Preparedness Program under the Environmental Programs and Management Tab and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$145.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$251.0 / +1.0 FTE) This program change increases funds for technical radiation expertise to support core emergency response programs, including air monitoring.
- (+\$121.0) This program change reflects an increase in funds for the operation and maintenance of the *National Analytical Radiation Environmental Laboratory* (NAREL) and National Center for Radiation Field Operations (NCRFO).

Statutory Authority:

Atomic Energy Act (AEA) of 1954, as amended, 42 U.S.C. 2011 et seq. (1970), and Reorganization Plan #3 of 1970; Clean Air Act (CAA) Amendments of 1990; Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR 300; Executive Order 12241 of September 1980, National Contingency Plan, 3 CFR, 1980; Executive Order 12656 of November 1988, Assignment of Emergency Preparedness Responsibilities, 3 CFR, 1988; Homeland Security Act of 2002; Post-Katrina Emergency Management Reform Act of 2006 (PKEMRA); Public Health Service Act (PHSA), as amended, 42 U.S.C. 201 et seq.; Robert T. Stafford Disaster Relief and EAA, as amended, 42 U.S.C. 5121 et seq.; Safe Drinking Water Act (SDWA); and Title XIV of the Natural Disaster Assistance Act (NDAA) of 1997, PL 104-201 (Nunn-Lugar II).

Program Area: Enforcement

Forensics Support

Program Area: Enforcement

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring
Compliance

Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Science & Technology</i>	<i>\$14,088.7</i>	<i>\$13,669.0</i>	<i>\$14,398.0</i>	<i>\$729.0</i>
Hazardous Substance Superfund	\$2,291.2	\$1,083.0	\$1,124.0	\$41.0
Total Budget Authority / Obligations	\$16,379.9	\$14,752.0	\$15,522.0	\$770.0
Total Workyears	86.6	80.3	80.3	0.0

Program Project Description:

The EPA's Forensics Support program provides expert scientific and technical support for the nation's most complex civil and criminal enforcement cases, as well as technical expertise for the agency's compliance efforts. The EPA's National Enforcement Investigations Center (NEIC) is an environmental forensic center accredited for both laboratory and field sampling operations that generate environmental data for law enforcement purposes. It is fully accredited under International Standards Organization (ISO) 17025, the main standard used by testing and calibration laboratories, as recommended by the National Academy of Sciences.¹¹ The work of the NEIC is critical to determining non-compliance and building viable enforcement cases. The NEIC maintains a sophisticated chemistry laboratory and a corps of highly trained inspectors and scientists with expertise across media. The NEIC works closely with the EPA's Criminal Investigation Division to provide technical support (e.g., sampling, analysis, consultation and testimony) to criminal investigations. The NEIC also works closely with the EPA's Headquarters and Regional offices to provide technical assistance, consultation, on-site inspection, investigation, and case resolution services in support of the agency's Civil Enforcement program.

FY 2016 Activities and Performance Plan:

The NEIC will continue to apply its technical resources in support of the agency's national civil and criminal enforcement priorities. Initiatives to stay at the forefront of environmental enforcement in FY 2016 will include: improvements in inspection methods used at Resource Conservation and Recovery Act regulated facilities; exploring new technologies, such as advanced remote sensing and DNA technologies, for on-site air and water sampling for toxic and non-conventional pollutants; and developing methods of evaluating electronic, self-monitoring databases. The EPA requests a modest increase in resources from the FY 2016 President's Budget to allow the NEIC to continue its high quality forensics support work by supporting existing personnel, and for providing necessary maintenance and repair for the NEIC laboratory.

¹¹ Strengthening Forensic Science in the United States: A Path Forward, National Academy of Sciences, 2009, available at http://www.nap.edu/catalog.php?record_id=12589.

As part of the NEIC's research into new technologies for air and water monitoring, the NEIC will continue to deploy its Geospatial Measurement of Air Pollution (GMAP) monitoring capabilities by field testing its mobile monitoring vehicle and verifying on-site, real-time results with laboratory measurements. This research contributes to the EPA's ongoing efforts to better locate and characterize difficult to measure air pollution sources using mobile measurements and sensor networks. The NEIC also will continue to deploy fence-line passive air sampling techniques to facilitate awareness of human and environmental exposures to air contaminants. Additionally, the NEIC will work with its partners in the agency's research and development programs to field test other advanced monitoring equipment like Light Detection and Ranging (LIDAR) and real-time, in situ water monitoring systems. Another focus will be to work with various agency offices in their efforts to develop more enforceable regulations. In response to case needs, the NEIC will conduct applied research and development to identify, develop, and deploy new capabilities, test and/or enhance existing methods and techniques, and provide technology transfer to other enforcement personnel involving environmental measurement and forensic applications.

In FY 2016, the NEIC will continue to function under the rigorous ISO 17025 requirements for environmental data measurements to maintain its laboratory and field accreditation. This includes rigorous auditing and the application of "lean" principles to refine and improve operations. As part of the agencywide effort to review overall space requirements, the NEIC also will continue to participate in the agency's efforts to advance the implementation of the consolidation of its laboratories to improve space and resource efficiency.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$382.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$347.0) This program change reflects an increase to purchase state-of-the art monitoring equipment for the National Enforcement Investigations Center's (NEIC) forensics laboratory which will be used to collect and analyze pollutant samples in the pursuit of investigations and enforcement cases.

Statutory Authority:

Resource Conservation and Recovery Act; Clean Water Act; Safe Drinking Water Act; Clean Air Act; Toxic Substances Control Act; Residential Lead-Based Paint Hazard Reduction Act; Federal Insecticide, Fungicide, and Rodenticide Act; Ocean Dumping Act (i.e., MPRSA); Emergency Planning and Community Right-to-Know Act.

Program Area: Homeland Security

Homeland Security: Critical Infrastructure Protection

Program Area: Homeland Security

Goal: Protecting America's Waters

Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Science & Technology</i>	<i>\$10,207.3</i>	<i>\$10,324.0</i>	<i>\$11,871.0</i>	<i>\$1,547.0</i>
Environmental Program & Management	\$648.0	\$964.0	\$1,014.0	\$50.0
Total Budget Authority / Obligations	\$10,855.3	\$11,288.0	\$12,885.0	\$1,597.0
Total Workyears	23.8	23.1	23.1	0.0

Program Project Description:

This program provides resources to coordinate and support protection of the nation's critical water infrastructure from terrorist threats and all-hazard events. Reducing risk in the water sector requires a multi-step approach to: determine risk through vulnerability, threat, and consequence assessments; reduce risk through security and resiliency enhancements; prepare to effectively respond to and recover from incidents; and measure the water sector's progress in risk reduction. The Public Health Security and Bioterrorism Response and Preparedness Act of 2002 (Bioterrorism Act) also provides that the EPA support the water sector in such activities.¹² In addition, the President has further delineated EPA's security and resiliency responsibilities under Presidential Policy Directive 21 (*Critical Infrastructure Security and Resilience*), Homeland Security Presidential Directive 9 (*Defense of Food and Agriculture*), and Executive Order 13636: *Improving Critical Infrastructure Cybersecurity*. The water security program also provides the tools and technical assistance to advance the long-term sustainability of water sector infrastructure and supplies by incorporating climate change and resiliency considerations into effective utility management practices.

FY 2016 Activities and Performance Plan:

Since the events of 9/11, the EPA has been designated as the sector-specific agency responsible for protecting the critical infrastructure of the nation's drinking water and wastewater systems. The EPA is utilizing its position within the water sector and working with its stakeholders to provide information to reduce the risks to water systems from all-hazard events such as terrorism and extreme weather events. Specifically, the EPA is responsible for assessing new security technologies to detect and monitor contaminants as part of the Water Security Initiative (WSI), establishing a national water laboratory alliance, and enhancing the preparedness and resiliency of water systems through exercises and technical assistance.

In FY 2016, the EPA will carry out a national training program for water systems on recently completed guidance and electronic tools to design and deploy a Water Quality Surveillance and Response System. Deployment of a Water Quality Surveillance and Response System can allow a

¹²Please see <http://www.epa.gov/safewater/watersecurity>.

water utility to rapidly detect and respond to water quality problems such as contamination in the distribution system in order to reduce public health and economic consequences. The EPA also will seek to apply the design and function of its surveillance system to the area of source water monitoring in response to the risks underscored by the 2014 chemical spill in West Virginia. Previously, this warning system had focused only on monitoring finished water in the distribution network, but the system clearly has the potential to address source water contamination. The EPA also will continue to support the Water Alliance for Threat Reduction program to protect the nation's critical water infrastructure and oversee the national laboratory network that forms the Water Laboratory Alliance. The Water Laboratory Alliance enables the water sector to rapidly analyze a surge of laboratory samples during a significant contamination event.

In FY 2016, the EPA will continue to fulfill its obligations under Executive Order (EO) 13636 – *Improving Critical Infrastructure Cybersecurity* – which designates the EPA as the lead agency responsible for cybersecurity in the water sector. Recent assessments by the Department of Homeland Security (DHS) have supported the widespread concern that the primary threat to the nation's critical infrastructure is cyber-attack on Industrial Control Systems (ICS). Both drinking water and wastewater systems rely heavily on ICS that were designed, in many cases decades ago, with little or no consideration of cyber security. Any interruption of a clean and safe water supply would erode public confidence and could produce significant public health and economic consequences.

In FY 2016, the EPA will continue working to ensure that water sector utilities have access to tools and information to prevent, detect, respond to, and recover from all hazards including terrorist attacks and extreme weather events. The EPA will invest \$1.2 million to promote more robust drinking water, wastewater, and stormwater system adaptation by increasing the national prominence of the Climate Ready Water Utilities (CRWU) initiative in conjunction with our emergency response and preparedness efforts. The mission of the CRWU initiative is to assist water sector utility owners and operators in integrating climate change and extreme weather considerations into their routine planning practices, through the provision of innovative but readily accessible electronic tools that enable water systems to adapt to climate change and thereby enhance their resiliency. The agency will promote the use of version 3.0 of its Climate Resilience Evaluation and Awareness Tool (CREAT) that incorporates sea-level rise and storm surge components via GIS, allows for mapping of assets, and leverages conventional asset management practices. This outreach will take the form of extensive nationwide training sessions with water and wastewater systems as well as a series of train-the-trainer forums for technical assistance providers in an effort to reach smaller utilities. The EPA also will conduct several pilot projects at large, medium, and small utilities across the country to cultivate a peer-to-peer network whereby water and wastewater utilities can share experiences in using CREAT and other CRWU tools. Sharing experiences within the sector can serve as an effective incentive for promoting the broader acceptance of integrating climate considerations into routine planning practices. The EPA will evaluate the feedback from these training sessions, in addition to the latest scientific assessments of climate change, to make any necessary upgrades to CREAT.

The EPA will continue to work with its stakeholders to promote the use and adoption of effective, implementable, and sustainable climate adaptation practices in the water sector. With this tool and the EPA's support, utilities will have access to additional information in order to better fulfill their

public health and environmental missions despite unprecedented climatic impacts. Climate change and extreme weather events, in the absence of adequate planning, directly threaten water systems' ability to fulfill their public health and environmental missions as evident from the devastation borne by Superstorm Sandy. This initiative also will advance the long-term sustainability of water sector infrastructure and supplies by encouraging incorporation of climate change and resiliency considerations into effective utility management practices.

Water Security Initiative and Water Laboratory Alliance

The EPA's goal is to develop a "robust, comprehensive, and fully-coordinated surveillance and monitoring system"¹³ for drinking water and a water laboratory network that would support water surveillance and emergency response activities. The objective of the Water Security Initiative is to design and demonstrate an effective system for timely detection and appropriate response to drinking water contamination threats and incidents through a pilot program that has broad application to the nation's drinking water utilities in high threat cities.

Under the Water Security Initiative, the EPA developed the design for a Water Quality Surveillance and Response System, which consists of five general components: (1) enhanced physical security monitoring; (2) online water quality monitoring; (3) routine and triggered sampling for high priority contaminants; (4) public health surveillance; and (5) consumer complaint surveillance. Peer reviewed simulation analyses underscore the importance of integrating all five surveillance components for contamination events, as different contaminants are detected by different sequences of triggers or "alarms." The EPA funded five full-scale pilots in major metropolitan areas to deploy and evaluate Water Quality Surveillance and Response Systems under the Water Security Initiative.

With the conclusion of these pilots in FY 2013, the EPA conducted a meta-analysis of the data to assess the efficacy and dual use benefits from operating a Water Quality Surveillance and Response System. The EPA supplemented these actual performance data with data based on modeled simulations of contamination events at the pilot utilities. The FY 2016 request includes \$5.8 million for necessary Water Security Initiative activities to carry out a national training program to disseminate knowledge from the water security pilots, while continuing to improve the design and implementability of such warning systems, and \$1.1 million for the Water Alliance for Threat Reduction.

Funding in FY 2016 will enable the EPA to carry out the national outreach and training program necessary to promote the adoption of Water Quality Surveillance and Response Systems by drinking water utilities across the country. This phase of the Water Security Initiative is absolutely critical as the success of this initiative ultimately hinges on whether water systems begin to implement the guidance materials. The EPA will target initial training to water systems serving large populations or serving customers with either regional or national security significance. Subsequent training will focus on utilities serving smaller populations and will be developed with consideration of the reduced resources available to these utilities. In addition, the EPA will continue to seek out and evaluate opportunities to enhance the design of Water Quality Surveillance and Response Systems to improve their cost-effectiveness and implementability and,

¹³ Homeland Security Presidential Directive 9 (HSPD-9).

therefore, their appeal to water systems. For example, the EPA has developed techniques for locating online water quality monitors in distribution systems and for establishing alarm parameters for those monitors that do not require the use of advanced algorithms and complex models. Such techniques represent a critical design advance as they dramatically reduce the cost while improving the feasibility of deploying and operating a Water Quality Surveillance and Response System. Further, the EPA has developed an online technology clearing-house to assist water systems in selecting the most appropriate water quality monitoring technology for their specific needs. These approaches and tools are making Water Quality Surveillance and Response Systems more affordable and accessible to water systems of all sizes.

In a contamination event, the sheer volume or unconventional type of samples could quickly overwhelm the capacity or capability of a single laboratory. To address this potential deficiency, the EPA has established a national Water Laboratory Alliance comprised of laboratories harnessed from the range of existing lab resources from the local (e.g., water utility) to the federal levels (e.g., the Center for Disease Control's Laboratory Response Network). The Water Laboratory Alliance focuses solely on water and provides specialized expertise to support the water component of the EPA's Environmental Response Laboratory Network, which focuses on analyses of all other environmental media. The Water Laboratory Alliance will reduce the time necessary for confirming an intentional contamination event in drinking water and speed response and decontamination efforts. Launched in 2009, the Water Laboratory Alliance is composed of a number of environmental, public health, and commercial laboratories across the nation with membership increasing steadily. In FY 2016, the EPA will continue to promote, through exercises, expert workshops, and association partnerships, the Water Laboratory Alliance Plan, which provides a protocol for coordinated laboratory response to a surge of analytical needs.

The EPA will continue work with regional and state environmental laboratories to conduct exercises and continue efforts to automate the exercises enabling laboratories and other members of the water sector to participate in exercises simultaneously and continue the innovative practice of pursuing validation of methods through exercises. The agency also will expand the membership of the Water Laboratory Alliance with the intention of achieving nationwide coverage. The Water Laboratory Alliance has 140 member laboratories that are geographically diverse and can provide a wide range of chemical, biological, and radiological analyses. In order for the Water Laboratory Alliance to become a robust infrastructure that can cover major population centers and address a diverse array of high priority contaminants, membership must continue to increase. The agency will continue to target laboratories located in areas where the Water Laboratory Alliance has both inadequate membership levels and gaps in laboratory analytical capabilities. In FY 2016, the EPA will seek to expand the membership of the laboratory network by reaching out to laboratories at water systems that do not meet the capability criteria for membership in the broader Environmental Response Laboratory network. This phase will increase the membership of the lab alliance and bring water utility labs into the fold of the network, enabling access to a wide range of chemical, biological, and radiological analyses, which will serve both homeland security and public health purposes.

Water Sector-Specific Agency Responsibilities

The EPA is the sector-specific agency “responsible for infrastructure protection activities” for the water sector (drinking water and wastewater utilities). The EPA is responsible for developing and providing tools and training on improving security and resiliency to the 53,000 community water systems and 16,000 publicly-owned treatment works. The EPA’s role as the federal lead for enhancing the preparedness and resiliency of the water sector against all hazards was reaffirmed through Presidential Decision Directive 21 (February 2013).

Under the February 12, 2013, Improving Critical Infrastructure Cybersecurity Executive Order, the EPA, in FY 2016, will continue to coordinate water sector specific cybersecurity risks with DHS and the sector, and conduct outreach and training to the sector. In FY 2014, the EPA convened the Cybersecurity Strategy Workgroup, under the Critical Infrastructure Partnership Advisory Council, to identify and rank critical gaps for the water sector with respect to tools, training, and other technical assistance that could assist the sector in adopting the National Institute of Standards and Technology Cybersecurity Framework. In FY 2016, the EPA will invest \$500 thousand to address the highest priority gaps by providing in-person and webinar-based training to the water sector on available risk assessment and management tools for cybersecurity. Further, this workgroup, at the encouragement of the National Security Council, developed metrics by which the EPA can assess the progress of the water sector in reducing risks to cyber-attacks. In FY 2016, the EPA will coordinate with the sector in collecting and analyzing these assessment data. The EPA also will assess whether changes or updates are required in its current regulatory framework to support cybersecurity and resiliency practices.

The following preventive and preparedness activities will be implemented for the water sector in collaboration with the DHS and states’ homeland security and water sector officials:

- Conduct webcasts to prepare utilities, emergency responders, and decision-makers to evaluate and respond to physical, cyber, and contamination threats and events;
- Disseminate tools and provide technical assistance to ensure that water and wastewater utilities and emergency responders react rapidly and effectively to intentional contamination and natural disasters. Tools include: information on high priority contaminants, incident command protocols, sampling and detection protocols and methods, and treatment options;
- Sustain operation of the Water Desk in the agency’s Emergency Operations Center in the event of an emergency by updating roles/responsibilities, training staff in the incident command structure, ensuring adequate staffing during activation of the desk, and coordinating with EPA regional field personnel and response partners;
- Support the adoption and effectiveness of mutual aid agreements among utilities to improve recovery times;
- Complete development of an electronic tool that consolidates all of the preparedness and resiliency products that EPA has released over the last decade into one comprehensive, coherent, and compelling framework, and conduct training and outreach on this tool for water systems and state officials;
- Continue to implement specific recommendations for emergency response, as developed by the EPA and water sector stakeholders, including providing an expanded set of tools

(e.g., best security practices, incident command system and mutual aid training, recovery, and resiliency) in order to keep the water sector current with evolving water security priorities;

- Coordinate with other federal agencies, primarily DHS, Centers for Disease Control, Food and Drug Administration, and Department of Defense, on biological, chemical, and radiological contaminants of high concern, and how to detect and respond to their presence in drinking water and wastewater systems;
- Continue to implement specific recommendations of the Water Decontamination Strategy as developed by the EPA and water sector stakeholders (e.g., defining roles and responsibilities of local, state, and federal agencies during an event); and
- Develop annual assessments, as required under the National Infrastructure Protection Plan, to describe existing water security efforts and progress in achieving the sector's key metrics.

Community Highlight: Jamestown, Colorado

After the initial emergency response activities for the catastrophic 2013 Colorado Floods, the Town of Jamestown, Colorado requested assistance from EPA for rebuilding its damaged water facilities during the flood recovery phase. Jamestown was particularly interested in rebuilding the facilities to be more sustainable and resilient to future extreme weather events. The EPA evaluated the Town's needs and developed recommendations for the Town to consider when rebuilding the damaged water treatment plant and distribution system. Options for increased sustainability and resiliency were highlighted throughout the process and to the Town. Jamestown received financial assistance from the State of Colorado to utilize many of the recommendations in the rebuilding phase, including provisions for backup power, floodproofing, alarm and communication systems, redundant water sources, and distribution system improvements. The document titled "Jamestown Flood Restoration Recommendations – Final Report" is available on EPA Region 8's website at: "<http://www2.epa.gov/region8-waterops/emergencies-and-security-natural-disasters>."

Performance Targets:

Work under this program supports the EPA's Protect Human Health objective. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$128.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$279.0) This program change decreases funding for the Water Laboratory Alliance which supports the EPA's mission to develop a nationwide surveillance network for drinking water systems and a laboratory infrastructure to enable such surveillance. This reduction is possible due to the maturity of the program and the automation of trainings and exercises.

- (+\$1,198.0) This program change for the Climate Ready Water Utilities Initiative will allow the agency to improve the ability of drinking water and wastewater systems to fulfill their public health and environmental missions, enhancing the tools and information that local, state, and federal decision-makers need to identify specific needs for water system adaptation investments in consideration of climatic impacts.
- (+\$500.0) This program change increases funding to support cybersecurity activities within the water infrastructure sector pursuant to Executive Order 13636.

Statutory Authority:

SDWA 42 U.S.C. §300f–300j–9 as added by Public Law 93–523 and the amendments made by subsequent enactments, Sections – 1431, 1432, 1433, 1434, 1435; CWA 33 U.S.C. §1251 et seq.; Public Health Security and Bioterrorism Emergency and Response Act of 2002; Emergency Planning and Community Right-to-Know Act, 42 U.S.C. §11001 et seq – Sections 301, 302, 303, and 304.

Homeland Security: Preparedness, Response, and Recovery

Program Area: Homeland Security

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Minimize Exposure to Radiation

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Science & Technology</i>	\$27,840.5	\$26,256.0	\$25,674.0	(\$582.0)
Hazardous Substance Superfund	\$35,513.6	\$35,265.0	\$32,654.0	(\$2,611.0)
Total Budget Authority / Obligations	\$63,354.1	\$61,521.0	\$58,328.0	(\$3,193.0)
Total Workyears	139.0	131.2	124.4	-6.8

Program Project Description:

Human lives can be at stake when people are exposed to hazardous chemicals, microbial pathogens, and radiological materials purposely released into the environment by terrorists or unintentionally as a result of industrial accidents or natural disasters. Our communities and country can recover more quickly and cost effectively from these events if effective tools, methods, information, and guidance are developed and successfully delivered to local, state, and federal decision-makers. The EPA’s Homeland Security Research Program (HSRP) enhances the nation’s preparedness, response, and recovery capabilities for large-scale catastrophic incidents by filling critical gaps associated with EPA’s homeland security responsibilities. Over the years, the research program has developed many products that address critical terrorism-related issues while having resilience applicability to other natural and manmade disasters. Recent examples of critical support provided by HSRP’s emergency response experts include: (1) the Deepwater Horizon Oil Spill cleanup, (2) the *Fukushima* Daiichi nuclear reactor meltdown recovery, and (3) the 2013 Ricin contamination incidents’ response.

HSRP collaborates with other federal agencies including the Department of Homeland Security (DHS), Department of Defense (DOD), Centers for Disease Control and Prevention (CDC), and the Federal Bureau of Investigation, on key research areas of mutual interest. By planning research based on the needs of partners and stakeholders (EPA’s Homeland Security Program, Water Program, Solid Waste and Emergency Response Program, and the Regions) and using a cradle-to-grave approach, HSRP efficiently and effectively delivers timely products to its internal partners and the aforementioned federal stakeholders while simultaneously preventing duplication of scientific and technical work conducted by other agencies.

Recent Accomplishments Include:

- **EPANET Real-Time Simulation Capabilities for Improved Water System Security and Resilience** – Software integrates network hydraulic and water quality models with real

time operational data allowing automated and routine capability to: forecast, hindcast, and simulate water system conditions. Real-time simulation can now be based on actual conditions, instead of the old approach of using average system conditions. This tool will assist water utilities in the detection and assessment of consequences from contamination events in water systems and has been demonstrated, through a pilot in Northern Kentucky, to improve overall management and operation of drinking water systems, including reducing operational costs.

- **Assessment of Methodologies for Decontamination of Sensitive Equipment for Rapid Return to Service of Critical Infrastructure** – This synthesis output summarizes studies on the material compatibility of fumigants for sensitive equipment. This summary includes results from previously completed studies with chlorine dioxide, methyl bromide, and vaporous hydrogen peroxide fumigants, as well as recently completed studies with ethylene oxide. These results assist operational personnel in constructing decontamination strategies for sensitive equipment and were recently used to develop cleanup strategies for mail sorters contaminated with ricin. These strategies are essential for rapid return to service of many types of critical infrastructure (e.g., airports, drinking water treatment plants, etc.).
- **Three-Dimensional Computational Fluid Dynamics (CFD) Model of the Rabbit Respiratory System for Improved Extrapolation to Human Exposures** – A CFD model of the rabbit respiratory system was needed to extrapolate rabbit dose-response data for *Bacillus anthracis* (anthrax) spores (collected through recently completed NHSRC research efforts) to estimate potential human inhalation exposure doses. Risk-based cleanup goals require information regarding adverse exposure doses. Many of the threat agents, like anthrax, have limited to no dose-response data. When data is available, it is generally from animal experiments which presents a challenge to extrapolate across significant species differences in anatomy and physiology. Using the developed rabbit CFD model, the anatomy/physiology differences between the rabbit and human respiratory systems can be tracked and particle deposition estimations can be made on where and how much is deposited in the lung. This model also could be used for other hazardous particulate-based contaminants, including those evaluated through the IRIS program.
- **Persistence of Vegetative Bacteria to Inform Sampling and Remediation Strategies** - A biological attack using non spore-forming biological agent (e.g., *Yersinia pestis*) remains a viable threat. Sampling and decontamination strategies are inherently dependent upon the persistence of these agents. This work documents the persistence of *Y. pestis* and *Bacillus anthracis* vegetative cells on soil and other key indoor and outdoor surfaces.

FY 2016 Activities and Performance Plan:

In accordance with Presidential Policy Directive-8, HSRP is pursuing an all-hazards approach in conducting its work in order to provide the tools and capabilities necessary to prepare the nation for disasters of all types. Building resiliency in the nation's communities requires that they be prepared to respond to disasters that are terrorism-based, accidental, or naturally occurring. HSRP, by utilizing input from the relevant EPA Program Offices and Regional Offices, is focusing on reacting to terrorism-related issues to better provide products with multiple benefits that are

applicable to a broader set of disasters. HSRP will prioritize contributions in order of perceived threat to focus on biological contaminants, followed by radiological contaminants, and lastly chemical contaminants. As new chemical agents emerge, priorities will be informed and adjusted guided by information from the DOD and the DHS. New agency responsibilities also were recently outlined in Executive Order (EO) 13636: “*Improving Critical Infrastructure Cybersecurity*” and Presidential Policy Directive (PPD)-21: “*Critical Infrastructure Security and Resilience*,” and the HSRP is determining the most cost-effective way to address the new needs resulting from these additional responsibilities.

Decontamination Research

As outlined in the HSPDs-7,-9,-10, and 22¹⁴ as well as the National Response Framework, the EPA is tasked with remediating contaminated environments due to either terrorist attacks or inadvertent disasters and with developing a nationwide laboratory network with the capability and capacity to analyze for Chemical, Biological, and Radiological (CBR) agents during routine monitoring and in response to terrorist attacks and other disasters.

In FY 2016, decontamination research will continue to address existing scientific knowledge gaps in responding to and recovering from wide-area CBR attacks on urban centers and public areas. Sampling and analytical methods will be developed by the HSRP and compiled in their widely-accepted and regularly-updated Selected Analytical Methods for Environmental Remediation and Recovery (SAM)¹⁵ in support of post-incident decisions regarding exposure assessment, remediation, and re-occupancy.

The EPA’s HSRP’s “systems” view of cleanup and the resultant products help decision-makers:

- determine holistic clean-up approaches,
- develop solutions that optimize cleanup efficacy, and
- minimize cost and recovery time as well as unintended consequences.

This allows the consideration of how a choice in clean up method might impact the amount and character of the resulting waste stream.

The EPA’s HSRP’s decontamination research also will focus on developing methods and strategies for remediation after a wide area contamination event, particularly for *B. anthracis* and radiological contamination. This will include testing widely available cleanup technologies, developing methodologies for decontamination of outdoor areas, developing strategies for scaling up effective technologies for wide-area use, and developing scalable approaches to manage the contaminated waste.

¹⁴ HSPD-7: Homeland Security Presidential Directive 7: Critical Infrastructure Identification, Prioritization, and Protection, HSPD-9: Defense of U.S. Agriculture and Food, HSPD-10: Biodefense for the 21st Century, HSPD-22: Domestic Chemical Defense.

¹⁵Please see <http://www.epa.gov/nhsrc/aboutconrisk.html#samana> for additional information.

Water Infrastructure Protection Research

The Water Infrastructure Protection Research Program is directly responsive to the water sector specific needs of the agency. Specifically, the HSRP is conducting research directly related to needs identified by the Water Sector Coordinating Council and the Water Government Coordinating Council's¹⁶ Critical Infrastructure Partnership Advisory Council, organized by the DHS. The White House priority, outlined in PPD-21 and EO-13636, will result in new HSRP research efforts to support best practices for cybersecurity in the water sector.

In FY 2016, high priority needs that the HSRP will focus on include:

- Development of a water distribution system modelling tool that supports system-specific evaluation of various resilience measures for a wide range of hazards and
- Development of methods to decontaminate water system infrastructure and treat water, including decontamination wash water.

Accordingly, research on real time distribution system models and methods to isolate and treat contaminated water, clean distribution systems, redirect water, and return water systems to service quickly and affordably is in progress. HSRP also will investigate the chemical, biological, and physical aspects of decontamination processes to design and optimize the cleanup process for removal or mitigation of CBR contamination in wastewater.

To support all of the water research efforts outlined above, the HSRP also will conduct field-scale evaluations of water contamination sensors, decontamination methodologies, and the tools that support response actions.

Radiation Monitoring

Maintenance of the RadNet air monitoring network supports EPA's responsibilities under the Nuclear/Radiological Incident Annex to the National Response Framework (NRF). The network includes near real-time stationary monitors and deployable monitors. This network is identified as an EPA Critical Infrastructure/Key Resource (CI/KR) asset.

Through FY 2015, the EPA will continue working to install six additional RadNet fixed monitors, bringing the national total to 140. The network monitors provide near real-time radiation monitoring coverage for each of the 100 most populous U.S. cities, as well as expanded geographic coverage. In FY 2016, the agency will operate and maintain the expanded RadNet air monitoring network. Fixed stations will operate routinely and, should there be an emergency, in conjunction with as many as 40 deployable monitors following a radiological incident. The expanded RadNet air monitoring network will provide the agency, first responders, and the public with greater access to data, improving officials' ability to make decisions about protecting public health and the environment during and after an incident. The EPA will continue to update its fixed and deployable

¹⁶ The Water Sector Coordinating Council is a "self-organized, self-run, and self-governed council" composed of water utilities. This council facilitates the development of policy impacting the water sector. The Water Government Coordinating Council was formed as the federal government counterpart to the Water Sector Coordinating Council and is responsible for interagency coordination of efforts related to the water sector.

monitoring systems, including their communications capability, across various media. Additionally, the data will be used by scientists to better characterize the effect of a radiological incident.

Performance Targets:

Measure	(HS1) Percentage of planned research products completed on time by the Homeland Security research program.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				100	100	100	100	100	Percent
Actual				100	100	100			

Measure	(HS2) Percentage of planned research outputs delivered to clients and partners to improve their capabilities to respond to contamination resulting from homeland security events and related disasters.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				100	100	100	100	100	Percent
Actual				78	100	100			

The tables reflect the HSRP’s annual performance measures. The EPA uses these measures to assess our effectiveness in delivering needed products and outputs to clients (decision-makers, states, and local governments).

The EPA has established a standing subcommittee under the Research and Development Program’s Board of Scientific Councilors (BOSC) for the HSRP program to evaluate its performance and provide expert feedback to the agency. In July 2014, the Science Advisory Board and BOSC met with the agency’s Research and Development program to provide input on HSRP’s 2016-2019 Strategic Research Action Plan. The agency’s Research and Development program plans to meet regularly with these bodies over the next several years to seek their input on topics related to research program design, science quality, innovation, relevance, and impact, within the context of the agency’s Strategic Plan.

The EPA collaborates with several science agencies and the research community to assess our research performance. For example, the EPA is partnering with the National Institutes of Health, National Science Foundation, Department of Energy, and Department of Agriculture. The EPA also works with the White House’s Office of Science and Technology Policy and supports the interagency Science and Technology in America’s Reinvestment–Measuring the Effect of Research on Innovation, Competitiveness, and Science (STAR METRICS) effort.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$143.0 / -2.7 FTE) This net change reflects an increase of \$310.0 to fixed and other costs for the recalculation of base workforce costs due to adjustments in salary, working capital fund, and benefits, and a decrease of \$167.0 and 2.7 FTE for essential research program support costs.

- (-\$1,175.0 / -1.9 FTE) This reduces research resources for technologies to treat waste contaminated with chemical warfare agents and assessment techniques for certain radiological incidents.
- (+\$450.0) This program change increases funding related to the operation and maintenance of the National Analytical Radiation Environmental Laboratory (NAREL) and the National Center for Radiation Field Operations (NCRFO).

Statutory Authority:

AEA of 1954, as through P.L. 105–394, November 13, 1998, 42 U.S.C. 2011 et seq. - Section 275 Reorganization Plan #3 of 1970; CAA Amendments 42 U.S.C. 7401 et seq – Sections 102 and 103; CERCLA, as amended by the SARA 42 U.S.C. 9601 et seq., Sections 104, 105, and 106; Executive Order 12241 of September 1980, National Contingency Plan, 3 CFR, 1980; Executive Order 12656 of November 1988, Assignment of Emergency Preparedness Responsibilities, 3 CFR, 1988; PHS Act, as amended, 42 U.S.C. 201 et seq., Section 241; Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, 42 U.S.C. 5121 et seq. – Sections 201, 204, 303, 402, 403, and 502; SDWA 42 U.S.C. 300 et seq. – Sections 1433, 1434, and 1442; NDAA of 1997, Public Law 104-201, Sections 1411 and 1412; PHSBPPRA of 2002, Public Law 107–188, 42 U.S.C. 201 et seq., Sections 401 and 402 (amended the SDWA); TSCA, 15 U.S.C. 53 – Section 2609; OPA, 33 U.S.C. 2701 et seq; PPA, 42 U.S.C. 133; RCRA 42 U.S.C. 6901 et seq; EPCRA 42 U.S.C. 11001 et seq.; CWA 33 U.S.C. 1251 et seq.; FIFRA 7 U.S.C. 136 et seq.; FFDCRA, 21 U.S.C. 9; FQPA 7 U.S.C. 136 et seq. Executive Order 10831 (1970); FSMA, Pub. Law 111-353 - Sections 203 and 208; Executive Order 13486: Strengthening Laboratory Biosecurity in the United States (2009).

Homeland Security: Protection of EPA Personnel and Infrastructure

Program Area: Homeland Security

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$4,805.0	\$5,460.0	\$5,118.0	(\$342.0)
<i>Science & Technology</i>	<i>\$545.0</i>	<i>\$542.0</i>	<i>\$605.0</i>	<i>\$63.0</i>
Building and Facilities	\$4,158.7	\$6,676.0	\$7,875.0	\$1,199.0
Hazardous Substance Superfund	\$1,057.1	\$1,097.0	\$1,113.0	\$16.0
Total Budget Authority / Obligations	\$10,565.8	\$13,775.0	\$14,711.0	\$936.0
Total Workyears	2.7	4.9	8.9	4.0

Program Project Description:

This program involves activities to ensure that EPA's physical structures and assets are secure and operational and that certain physical security measures are in place to help safeguard staff in the event of an emergency. These efforts also protect the capability of EPA's vital laboratory infrastructure assets. Specifically, funds within this appropriation support security needs for the National Vehicle and Fuel Emissions Laboratory (NVFEL).

FY 2016 Activities and Performance Plan:

In FY 2016, the agency will continue to provide enhanced physical security for the NVFEL and its employees. This funding supports the incremental cost of security enhancements required as part of an agency security assessment review.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$64.0) This change is an increase due to the recalculation of lab fixed costs.
- (-\$1.0) This program change decreases funding for other program support costs.

Statutory Authority:

CAA (42 U.S.C. 7401-7661f); Motor Vehicle Information Cost Savings Act; Alternative Motor Fuels Act of 1988; National Highway System Designation Act; NEP Act, SAFETEA-LU of 2005; EPA Act of 2005; EISA of 2007.

Program Area: IT / Data Management / Security

IT / Data Management

Program Area: IT / Data Management / Security

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$90,118.6	\$84,227.0	\$96,395.0	\$12,168.0
<i>Science & Technology</i>	<i>\$3,860.8</i>	<i>\$3,089.0</i>	<i>\$3,196.0</i>	<i>\$107.0</i>
Hazardous Substance Superfund	\$15,129.1	\$13,802.0	\$14,938.0	\$1,136.0
Total Budget Authority / Obligations	\$109,108.5	\$101,118.0	\$114,529.0	\$13,411.0
Total Workyears	453.6	469.8	478.8	9.0

Program Project Description:

The EPA's Information Technology/Data Management (IT/DM) program promotes the use of quality environmental information for informing decisions, improving management, documenting performance, and measuring success, which supports the agency's mission to protect public health and the environment. Science and Technology (S&T) resources for the EPA's IT/DM program fund the following activities: Quality Program (QP),¹⁷ the EPA libraries, and One EPA Web.

The Quality Program ensures that all environmentally-related data activities performed by or for the agency will result in the production of data that is of adequate quality to support specific decisions or actions. In order for this data to be used with a high degree of certainty by its intended users, its quality must be known and documented. The Quality Program ensures that appropriate resources are made available and proper procedures, including statistical analysis, are followed throughout each phase of environmental projects: planning, implementation and evaluation phases. Specifically, the Quality Program provides Quality Assurance (QA) policies, training, oversight and technical support to assist the EPA's programs in the implementation of their quality management systems which are required by EPA Quality Policy CIO 2105.0 for all environmental data operations. The Quality Program also oversees the implementation of the EPA Information Quality Guidelines.

FY 2016 Activities and Performance Plan:

In FY 2016, the agency will continue to maintain the EPA's libraries and the One EPA Web, which supports hosting for all agency websites and Web pages. Also, the agency will support development and use of high quality environmental decision-making data, ensuring that the data

¹⁷ More information about the EPA Quality Program can be found at <http://www.epa.gov/quality>.

is documented, defensible, and of appropriate quality for its intended use. The program will revise as necessary EPA Quality Procedures to reflect the current scope of environmental data operations. The program will provide technical support to all EPA programs and laboratories for implementation of the EPA's Quality Policies, Procedures and Standards. The Quality Program also will develop QA training courses for the EPA's personnel and make core QA courses available through the agency's online training portal.

In FY 2016, the Quality Program will complete at least seven Quality Management Plan reviews and conduct Quality System Assessments of the EPA's programs. In addition, the program will provide technical support to the EPA's organizations conducting internal audits of their conformance with the Field Operations Group Guidelines. These oversight activities ensure the data used to support environmental decision-making is appropriate for its intended use and enhances the reliability of the data. Additionally, the Quality Program will provide oversight of the EPA's Information Quality Guidelines and facilitate the development of agency responses to the public's request for correction of the EPA's disseminated information.

Performance Targets:

Work under this program supports all five of the agency's strategic goals. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$164.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$57.0) This program change reflects a reduction from the agency's efforts in gaining efficiencies through online training to support workforce.

Statutory Authority:

Federal Advisory Committee Act (FACA), 42 U.S.C. 553 et seq. and Government Information Security Act (GISRA), 40 U.S.C. 1401 et seq. – Sections 3531, 3532, 3533, 3534, 3535 and 3536 and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. 9606 et seq. – Sections 101-128, 301-312 and 401-405 and Clean Air Act (CAA) Amendments, 42 U.S.C. 7401 et seq. – Sections 102, 103, 104 and 108 and Clean Water Act (CWA), 33 U.S.C. 1314 et seq. – Sections 101, 102, 103, 104, 105, 107, and 109 and Toxic Substances Control Act (TSCA), 15 U.S.C. 2611 et seq. – Sections 201, 301 and 401 and Federal Insecticide Fungicide and Rodenticide Act (FIFRA), 7 U.S.C. 36 et seq. – Sections 136a – 136y and Food Quality Protection Act (FQPA), 7 U.S.C. 136 et seq. – Sections 102, 210, 301 and 501 and Safe Drinking Water Act (SDWA) Amendments, 42 U.S.C. 300 et seq. – Sections 1400, 1401, 1411, 1421, 1431, 1441, 1454 and 1461 and Federal Food, Drug and Cosmetic Act (FFDCA), 21 U.S.C. 346 et seq. and Emergency Planning and Community Right-to-Know Act (EPCRA), 42 U.S.C. 11001 et seq. – Sections 322, 324, 325 and 328 and Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6962 et seq. – Sections 1001, 2001, 3001 and 3005 and Government Performance and Results Act (GPRA), 39 U.S.C. 2803 et seq. – Sections 1115, 1116, 1117, 1118

and 1119 and Government Management Reform Act (GMRA), 31 U.S.C. 501 et seq. – Sections 101, 201, 301, 401, 402, 403, 404 and 405 and Clinger-Cohen Act (CCA), 40 U.S.C. 1401 et seq. – Sections 5001, 5201, 5301, 5401, 5502, 5601 and 5701 and Paperwork Reduction Act (PRA), 44 U.S.C. 3501 et seq. – Sections 104, 105, 106, 107, 108, 109, 110, 111, 112 and 113 and Freedom of Information Act (FOIA), 5 U.S.C. 552 et seq. and Controlled Substances Act (CSA), 21 U.S.C. 802 et seq. – Sections 801, 811, 821, 841, 871, 955 and 961 and Electronic Freedom of Information Act (EFOIA), 5 U.S.C. 552 et seq. – Sections 552(a)(2), 552 (a)(3), 552 (a)(4) and 552(a)(6).

Program Area: Operations and Administration

Facilities Infrastructure and Operations
Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inland Oil Spill Programs	\$456.9	\$584.0	\$1,762.0	\$1,178.0
Environmental Program & Management	\$305,366.3	\$310,399.0	\$312,180.0	\$1,781.0
<i>Science & Technology</i>	<i>\$75,013.3</i>	<i>\$68,339.0</i>	<i>\$79,170.0</i>	<i>\$10,831.0</i>
Leaking Underground Storage Tanks	\$797.4	\$792.0	\$1,103.0	\$311.0
Building and Facilities	\$23,532.6	\$35,641.0	\$43,632.0	\$7,991.0
Hazardous Substance Superfund	\$70,445.1	\$75,055.0	\$78,160.0	\$3,105.0
Total Budget Authority / Obligations	\$475,611.6	\$490,810.0	\$516,007.0	\$25,197.0
Total Workyears	355.4	367.4	359.5	-7.9

Program Project Description:

Science & Technology (S&T) resources in the Facilities Infrastructure and Operations program fund rent, utilities, and security. This program also supports centralized administrative activities and support services, including health and safety, environmental compliance and management, facilities maintenance and operations, energy conservation, sustainable buildings programs, and space planning. Funding is allocated for such services among the major appropriations for the agency.

FY 2016 Activities and Performance Plan:

As part of the EPA's efforts toward becoming a High Performing Organization (HPO) the agency reviews space needs, and is implementing a long-term space consolidation plan that will reduce the number of occupied facilities, consolidate space within the remaining facilities, and reduce the square footage wherever practical. In FY 2016, the EPA will continue to invest to reconfigure the EPA's workspaces with the goal of reducing long-term rent costs. This work will enable the agency to release office space and reduce costs as well as support the President's June 2010 memorandum on "Disposing of Unneeded Federal Real Estate." Between FY 2012 and FY 2014 the EPA released over 225 thousand square feet of space at headquarters and facilities nationwide, resulting in a cumulative annual rent avoidance of over \$8.3 million across all appropriations. These savings help offset the EPA's escalating rent and security costs.

For FY 2016, the agency is requesting \$35.06 million for rent, \$19.82 million for utilities, and \$14.36 million for security in the S&T appropriation.

In FY 2016, the EPA will continue to improve operating efficiency and encourage the use of advanced technologies and energy sources to meet the goals of Executive Order (EO) 13423,¹⁸ *Strengthening Federal Environmental, Energy, and Transportation Management*. The agency will attain the EO's environmental performance goals related to buildings through several initiatives, including: comprehensive facility energy audits; re-commissioning; and sustainable building design.

EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, expands upon EO 13423 and requires additional reductions to greenhouse gas (GHG) emissions. To meet the requirements of EO 13514 the EPA will manage existing building systems to reduce consumption of energy, water, and materials, consolidate and dispose of existing facilities, and optimize real property and portfolio performance. In FY 2016, the agency is targeting to reduce energy utilization (or improve energy efficiency) by approximately 37 billion British Thermal Units or three percent. This ongoing effort to become more efficient has yielded impressive results - approximately 27 percent less energy used in FY 2014 than in FY 2003, and annual cost savings of \$5.9 million agency-wide.

Performance Targets:

Work under this program supports the performance measures in the Facilities Infrastructure and Operations program under the EPM appropriation. These measures can also be found in the Eight Year Performance Array in the Program Performance and Assessment section. Information on the agency's energy/GHG reduction initiative can be found in the agency's Strategic Sustainability Performance Plan at http://www.epa.gov/greeningepa/documents/sspp2013_508.pdf.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$6,850.0) This change to fixed and other costs is an increase due to the recalculation of rent, utility and security (RUS) needs and rebalances funding for RUS across the appropriations.
- (+\$3,981.0) This program change reflects an investment in master planning necessary to achieve future savings through laboratory space optimization (\$1,000.0) and an increase in support of basic facility needs to meet specific needs required by research and development facilities and laboratories (\$2,981.0).

Statutory Authority:

FPASA; PBA; Annual Appropriations Act; CWA; CAA; D.C. Recycling Act of 1988; Executive Orders 10577 and 12598; United States Marshals Service, Vulnerability Assessment of Federal Facilities Report; Presidential Decision Directive 63 (Critical Infrastructure Protection); Energy Policy Act of 2005; Energy Independence and Security Act of 2007.

¹⁸ Information is available at <http://www.fedcenter.gov/programs/eo13514/>, *Federal Leadership in Environmental, Energy, and Economic Performance*; and <http://www.fedcenter.gov/programs/eo13423/>, *Strengthening Federal Environmental, Energy, and Transportation Management*

Program Area: Pesticides Licensing

Pesticides: Protect Human Health from Pesticide Risk

Program Area: Pesticides Licensing

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$50,633.7	\$55,698.0	\$60,019.0	\$4,321.0
<i>Science & Technology</i>	<i>\$3,660.5</i>	<i>\$3,197.0</i>	<i>\$3,266.0</i>	<i>\$69.0</i>
Total Budget Authority / Obligations	\$54,294.2	\$58,895.0	\$63,285.0	\$4,390.0
Total Workyears	395.0	405.8	403.7	-2.1

Program Project Description:

The EPA’s Pesticide program screens new pesticides before they reach the market and ensures that pesticides already in commerce are safe. As directed by FIFRA, the Federal Food, Drug, and Cosmetic Act (FFDCA), as amended by the Food Quality Protection Act (FQPA) of 1996, as well as the Pesticide Registration Improvement Extension Act of 2012 (known as PRIA3), the EPA is responsible for registering and re-evaluating pesticides to protect consumers, pesticide users, workers who may be exposed to pesticides, children, and other sensitive populations. To make regulatory decisions and establish tolerances, (maximum allowable pesticide residues on food and feed) for food use pesticides and for residential or non-occupational use, the EPA must find the pesticide safe, including cumulative and aggregate risks, and ensure extra protection for children. The agency must balance the risks and benefits of other uses.

The national program laboratories for the EPA’s Chemical Safety, Pollution Prevention and Pesticide programs consists of two laboratories that support the goal of protecting human health and the environment through diverse analytical testing and analytical method development and validation efforts. The laboratories also provide a variety of technical services to the EPA, other federal and state agencies, Tribal nations, and other organizations.

EPA’s Microbiology Laboratory

The Microbiology Laboratory develops and standardizes product efficacy test methodology for public health pesticides (i.e., antimicrobial pesticides) and generates data to support programmatic decision making. Antimicrobial pesticides are an essential tool in combating human pathogenic microorganisms on environmental surfaces, including treating surfaces contaminated with new and emerging pathogens. In FY 2014, the laboratory analyzed five antimicrobial products and found deficiencies in two products.

The Microbiology Laboratory leads the federal effort on designing and standardizing ways to test important infectious agents such as *Clostridium difficile* (*C. difficile*). Deaths related to *C. difficile* (hospital-acquired infections) continue to increase due in part to a stronger germ strain, and have now reached 14 thousand deaths per year. Almost half of the infections occur in people younger

than 65, but more than 90 percent of the deaths occur in people 65 and older.¹⁹ The organism has been shown to persist in the hospital environment, and disinfectants are essential to reduce disease transmission. Any new emerging human or animal pathogen (H1N1, *Clostridium difficile*, MRSA, etc.) represents a new method-development challenge for evaluating disinfectants.

The laboratory is also leading efforts to evaluate an internationally harmonized efficacy test method, the OECD quantitative test method, as well as methods for *Pseudomonas* and *Staphylococcus* biofilms, feline calcivirus, *Mycobacterium*, and a new quantitative test method for evaluating hospital disinfectant towelette formulations. Following collaborative evaluation, methods have been adopted or are currently under review at standard-setting organizations such as the American Society for Testing and Materials or Association of Official Analytical Communities and posted at <http://www.epa.gov/pesticides/methods/atmpindex.htm>.

EPA's Analytical Chemistry Laboratory

The Analytical Chemistry Laboratory provides technical review of enforcement methods and method validation and serves as a third-party confirmation laboratory. In addition, the laboratory provides analytical and technical support to various Regional Offices in enforcement cases, such as evaluating possible adverse effects of pesticide use, including possible pet poisoning and contaminated, deficient or illegally labeled products. The laboratory develops and validates multi-residue pesticide analytical methods to monitor and enforce agricultural uses of pesticides. Multi-residue methods are a quicker and more cost effective “one-stop-shop” method for multiple (100+) pesticides, based on their mode of action and chemical properties. The laboratory is leading a team of chemists from Office of Pesticide Programs, Food and Drug Administration, United States Department of Agriculture, and Canada’s Pest Management Regulatory Agency in the update of the OCSPP 860.1360 Residue Chemistry Guidelines for Multi-residue Methods. The new guidelines, when approved as a replacement for the current guideline (written in 1987) will allow the submission of multi-residue methods for use in enforcement and tolerance setting, based on more cost effective and more reliable techniques and technologies.

The Analytical Chemistry Branch Laboratory also works to standardize analytical methods to provide the agency with scientifically valid data for use in risk assessment, such as for determining the permeability of agricultural tarps to fumigants. This work assists the EPA in determining potential buffer zone credit for fumigated fields and assists crop growers with information to help determine the best tarps for their practices. The laboratory continues to support the EPA by reviewing data submitted to the agency for buffer zone credit request of newly manufactured tarps.

The Analytical Chemistry Laboratory also operates the OPP National Pesticide Standard Repository (NPSR), which collects and maintains pesticide standards (samples of pure active ingredients or technical grade active ingredients for pesticides) and distributes these standards to EPA and other federal, state, and Tribal laboratories involved in pesticide use enforcement.

¹⁹ http://www.cdc.gov/media/releases/2012/p0306_cdifff.html

FY 2016 Activities and Performance Plan:

In FY 2016, the agency will protect human health by ensuring the availability of appropriate analytical methods for detecting pesticide residues in food and feed, ensuring suitability for monitoring pesticide residues, and enforcing tolerances. The Microbiology laboratory will continue with efficacy testing of antimicrobials including: *C. difficile* claims; complete current method development activities; evaluate the Organization for Economic Cooperation and Development collaborative data and determine the course of action with respect to the method; conduct collaborative studies of the Quantitative Petri Plate method for towelettes; and One Step Method (for *C. difficile*); and publish the new performance standard for the use dilution method. Post-registration testing of antimicrobials enables the agency to remove ineffective products from the market. New methods enable the regulated community to register new products for use against emerging pathogens.

The EPA will: (a) continue to develop improved analytical methods using state of the art instruments to replace outdated methods, thus increasing laboratory efficiency and accuracy of the data; (b) continue to provide analytical support to fill in data gaps for the Pesticide Programs' risk assessment and for Section 18 emergency exemptions, and to perform studies for use in risk mitigation; (c) continue to provide analytical assistance and technical advice to all Regional Offices in their enforcement cases; (d) continue operation of the NPSR; (e) continue to verify that antimicrobial pesticides are properly formulated; and (f) validate, optimize, and standardize a method to determine permeability of agricultural tarps for fumigants.

Performance Targets:

Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$110.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$122.0) This change represents additional resources for science in support of pesticides registration and efficacy standards for public health pathogens.
- (-\$163.0 / -1.0 FTE) This program change reflects the consolidation of the Environmental Chemistry Laboratory to Fort Meade.

Statutory Authority:

Pesticide Registration Improvement Extension Act of 2012 (known as PRIA3); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended; Federal Food, Drug and Cosmetic Act (FFDCA) as amended, §408 and 409; Food Quality Protection Act (FQPA); Endangered Species Act (ESA).

Pesticides: Protect the Environment from Pesticide Risk

Program Area: Pesticides Licensing

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$36,085.1	\$35,470.0	\$39,805.0	\$4,335.0
<i>Science & Technology</i>	<i>\$1,960.5</i>	<i>\$2,316.0</i>	<i>\$3,896.0</i>	<i>\$1,580.0</i>
Total Budget Authority / Obligations	\$38,045.6	\$37,786.0	\$43,701.0	\$5,915.0
Total Workyears	303.1	261.9	261.8	-0.1

Program Project Description:

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), section 3(c) (5), states that the Administrator shall register a pesticide if it is determined that, when used in accordance with labeling and common practices, the product “will not generally cause unreasonable adverse effects on the environment.” FIFRA defines “unreasonable adverse effects on the environment”, as “any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide.”²⁰

In compliance with FIFRA, the EPA conducts risk assessments using the latest scientific methods to determine the risks that pesticides pose to human health and ecological effects on plants, animals, and ecosystems that are not the targets of the pesticide. The agency’s significant regulatory decisions are posted for review and comment to ensure that these actions are transparent and to allow stakeholders, including at-risk populations, to be engaged in decisions that affect their environment. Under FIFRA, the EPA must determine that a pesticide will not cause unreasonable adverse effects on the environment. The EPA must determine that food and residential uses of pesticides are safe. For other risk concerns, the EPA must balance the risks of the pesticides with benefits provided from the use of the product. To avoid unreasonable risks, the EPA may impose risk mitigation measures such as modifying use rates or application methods, restricting uses, or denying some or all uses. In some regulatory decisions, the EPA may determine that uncertainties in the risk determination need to be reduced and may require monitoring of environmental conditions, such as effects on water sources or the development and submission of additional laboratory or field study data by the pesticide registrant.

In addition to FIFRA responsibilities, the agency has responsibilities under the Endangered Species Act (ESA).²¹ Under the ESA, the EPA must ensure that pesticide regulatory decisions will not destroy or adversely modify designated critical habitat or result in jeopardy to the continued

²⁰ Federal Insecticide, Fungicide and Rodenticide Act. Sections 2 and 3, Definitions, Registration of Pesticides (7 U.S.C. §§ 136, 136a). Available online at <http://www.epa.gov/opp00001/regulating/laws.htm>.

²¹ The Endangered Species Act of 1973 sections 7(a)(1) and 7 (a)(2); Federal Agency Actions and Consultations (16 U.S.C. 1536(a)). Available at U.S. Fish and Wildlife Service, Endangered Species Act of 1973 internet site: <http://www.fws.gov/endangered/laws-policies/section-7.html>.

existence of species listed by the U. S. Fish and Wildlife Service (FWS) or National Marine Fisheries Service (NMFS) as threatened or endangered. Where risks are identified, the EPA must work with the FWS and NMFS in a consultation process to ensure these pesticide registrations will meet the ESA standard.

The national program laboratories of the EPA's Office of Pesticide programs provide a diverse range of environmental data that are used by the EPA to make informed regulatory decisions. The Analytical Chemistry Laboratory, Microbiology Laboratory, and the Environmental Chemistry Laboratory each provide critical laboratory testing and support activities to assist the decision-making processes of the agency. The laboratories develop efficacy data, and validate environmental and analytical chemistry methods to ensure that the Food and Drug Administration (FDA), the United States Department of Agriculture (USDA), the EPA offices, and states have reliable methods to measure and monitor pesticide residues in food and in the environment.

EPA's Microbiology Laboratory

The Microbiology Laboratory provides analyses that support the development of efficacy data for pesticides used for decontamination of buildings such as chlorine dioxide, supports research on methods and rapid detection assays, and evaluates commercial products used for remediation and decontamination of sites contaminated with biothreat agents, such as *Bacillus anthracis* (commonly known as anthrax). Work conducted by the laboratory led to a regulatory framework for licensing products against *Bacillus anthracis* as outlined in Pesticide Registration Notice 2008-2. Several products are now registered against this biothreat agent. The Microbiology Laboratory is the only EPA laboratory with a Select Agent registration under the CDC's Select Agent Program, enabling the laboratory to receive, transfer, and work with *Bacillus anthracis*. The lab is assisting with the verification testing of a rapid viability Polymerase Chain Reaction (PCR) method for detection of *Bacillus anthracis* in environmental swab samples. Finally, the laboratory ensures that pesticides deliver intended results by evaluating efficacy and registrant claims.

EPA's Analytical Chemistry Laboratory

The Analytical Chemistry Branch Laboratory supports the work of the EPA to determine the ecological risks that pesticides pose to plants, animals, and ecosystems, such as bees, that are not the targets of the pesticide by bringing new analytical methods online and using in-house expertise to develop and validate multi-residue pesticide analytical methods. Additional benefits are gained by transferring technologies, such as the multi-residue methods, to other EPA organizations and state laboratories for use in monitoring pesticide residues in the environment and ecological systems, and the standard method for testing permeability of agricultural tarps to fumigants, which is currently used by tarp manufacturers to measure the efficiency of newly developed and manufactured tarps.

The Analytical Chemistry Laboratory will continue to provide analytical support to fill data gaps for the Pesticide Program's risk assessments and for Section 18 emergency exemptions, and to perform studies for use in risk mitigation. Support includes working collaboratively with the USGS and Office of Pesticides Programs (OPP) to identify the presence of pesticides in rivers and streams across the nation. These data will allow USGS and OPP to study the patterns of exposure of

agricultural and urban ecosystems to pesticides. The Analytical Chemistry Laboratory also provides analytical assistance and technical advice to all EPA Regional offices for use in enforcement cases and reviews and validates analytical methods or studies submitted as part of a pesticide registration.

EPA's Environmental Chemistry Laboratory

The Environmental Chemistry Laboratory, under the North American Agreement on Environmental Cooperation, assisted in conducting research in the areas of environmental health with respect to the presence of dioxins and related compounds in lacustrine sediments and ambient air for the Commission for Environmental Cooperation. The Environmental Chemistry Laboratory also assisted the EPA Office of Research and Development by extending the number of emerging contaminants to be analyzed, specifically perfluorinated compounds (PFCs), in its Drinking Water Part II Study for the analysis of source and drinking water sites within the United States. The laboratory also completed analyses of twenty-five sampling sites along many of the major river systems in the U.S. that are used to provide drinking water to millions of urban residents.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will realize the benefits of pesticides by operating the National Pesticide Standard Repository and conducting chemistry and efficacy testing for antimicrobials. As the recognized source for expertise in pesticide analytical method development, the EPA's laboratories will continue to provide quality assurance and technical support and training to the EPA's Regional Offices, state laboratories, and other federal agencies that implement FIFRA.

The Microbiology Laboratory is working with the EPA's Emergency Management and Research and Development programs to evaluate and refine a Rapid Viability Polymerase Chain Reaction method (detects DNA) for *Bacillus anthracis* in environmental samples. The method will be used to evaluate samples from remediation sites.

The laboratory is working with the Edgewood Chemical and Biological Center under an Interagency Agreement to evaluate various materials (wood, concrete, fabric, tile, etc.) for recovery of bio-threat agents and treatment with standard decontamination technologies such as chlorine dioxide and bleach. These types of materials are found in sites requiring remediation due to contamination with non-spore forming bio-threat agents.

The Analytical Chemistry laboratory will continue to focus on analytical method development and validations as well as special studies to address specific short-term, rapid-turnaround priority issues. The laboratory will continue to provide technical and analytical assistance to the USDA's various minor crop projects (under the cooperative IR-4) that benefit specialty crop growers, globally and in the U.S.

The Environmental Chemistry Laboratory operations will merge with the Analytical Chemistry Laboratory in January 2015. The work and staff will be transferred to that laboratory and will support continued evaluation and development of test methods for pesticides in soil and water.

Performance Targets:

Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$67.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$1,513.0) This program change reflects an increase in the funding of contracts associated with the evaluation or study of acute toxicity of pesticides for honeybees and to further develop risk management options that protect pollinator health.

Statutory Authority:

Pesticide Registration Improvement Extension Act of 2012 (known as PRIA3); Pesticide Registration Improvement Renewal Act (PRIA); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended; Federal Food, Drug and Cosmetic Act (FFDCA) as amended §408 and 409; Food Quality Protection Act (FQPA); Endangered Species Act (ESA).

Pesticides: Realize the Value of Pesticide Availability

Program Area: Pesticides Licensing

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$10,175.5	\$9,795.0	\$10,409.0	\$614.0
<i>Science & Technology</i>	<i>\$517.2</i>	<i>\$514.0</i>	<i>\$529.0</i>	<i>\$15.0</i>
Total Budget Authority / Obligations	\$10,692.7	\$10,309.0	\$10,938.0	\$629.0
Total Workyears	69.1	69.5	69.5	0.0

Program Project Description:

The Office of Chemical Safety and Pollution Prevention’s national program laboratories make significant contributions to help the EPA realize the value of pesticides.

EPA’s Microbiology Laboratory

The Microbiology Laboratory evaluates and develops data to support Section 18 requests to combat emerging or novel pathogens such as prions, new use sites such as those colonized by biofilms and conducts applied research on new analytical methods for novel antimicrobials. In many cases of new claims or pathogens, there is no standard method available for determining efficacy to support a pesticidal claim. For example, it is recognized that microorganisms that exist as biofilm communities may be more resistant to disinfection. The laboratory has technical expertise on managing unusual pathogens for which Section 3 registration of a pesticide might not be economically viable. The evaluation of these requests is necessary in order to make pesticides available in the marketplace for these unusual or emergency situations. Examples include the H1N1 virus, prions, foot and mouth disease, and Severe Acute Respiratory (SAR) infections. The Microbiological Laboratory also evaluates the efficacy of antimicrobials to allow the EPA to remove ineffective products from the market. In addition the Microbiology Laboratory provides technical support on numerous non-standard protocols for antimicrobials, including: foggers, chemicals used for inactivation of prions, use of citric acid for control of foot and mouth disease and evaluation of requests from other federal agencies to use paraformaldehyde for decontamination of laboratory environments.

EPA’s Analytical Chemistry Laboratory

The Analytical Chemistry Branch Laboratory works to benefit specialty crop growers by developing more cost-effective and efficient ways to establish tolerances (maximum residue levels). This is accomplished through the United States Department of Agriculture’s Inter-Regional Research Project No. 4 (IR-4), Crop Group Validation, which focuses on the development of analytical methods and analysis of crop samples to determine if, when applied at the same rate, pesticide residues found in crops from same crop groups are similar. The data will

be used to determine whether a representative crop from a crop group can be used as a model to establish tolerances for all the members of the crop group. Such a validation would support the concept of crop grouping being accepted in the Codex (the international food standards organization established by the World Health Organization and the United Nation's Food and Agriculture Organization) and by the Organization for Economic Co-operation and Development. Over 500 samples have been analyzed to date in support of this project. The laboratory also provided analytical support to the IR-4 Global Study to evaluate the influence of spatial variation between various geographic locations around the world on the level of pesticide residues in field grown tomatoes when subjected to standardized application parameters and rates. This work is not currently being done by any other EPA program office.

The Analytical Chemistry Laboratory effort and success in standardizing the tarp protocol through the American Society for Testing and Materials (ASTM) International provides the tarp manufacturers with a method to test their newly manufactured tarps before submitting the data to the agency to request buffer zone credit, when fumigant is used as pest control in the field.

EPA's Environmental Chemistry Laboratory

The Environmental Chemistry Laboratory reviews and validates environmental chemistry analytical methods in support of pesticide registration and emergency exemption activities. Results from the laboratory's method validations are used to judge the quality, reliability, and consistency of analytical results that can be achieved by the registrants' methods. This work is not currently being done by any other EPA organization.

FY 2016 Activities and Performance Plan:

The Microbiology Laboratory will continue to evaluate Section 18 and novel protocol requests for new uses and novel pathogens. The Analytical Chemistry Laboratory will continue its work with the IR-4 Global Study and IR-4 Crop Group Validation Study. The operations and capabilities of the Environmental Chemistry Laboratory transferred to the Analytical Chemistry Laboratory in January 2015.

Performance Targets:

Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$13.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$2.0) This change reflects a minor increase in contracts in support of laboratory operations.

Statutory Authority:

Pesticide Registration Improvement Extension Act of 2012 (known as PRIA3); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended; Federal Food, Drug and Cosmetic Act (FFDCA) as amended, §408 and 409; Food Quality Protection Act (FQPA); Endangered Species Act (ESA).

Program Area: Research: Air, Climate and Energy

Research: Air, Climate and Energy

Program Area: Research: Air, Climate and Energy
Goal: Addressing Climate Change and Improving Air Quality
Objective(s): Address Climate Change; Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Science & Technology</i>	<i>\$99,429.8</i>	<i>\$91,906.0</i>	<i>\$100,342.0</i>	<i>\$8,436.0</i>
Total Budget Authority / Obligations	\$99,429.8	\$91,906.0	\$100,342.0	\$8,436.0
Total Workyears	293.8	298.8	289.1	-9.7

Program Project Description:

American communities face serious health and environmental challenges from air pollution and the effects of climate change. The EPA’s Air, Climate, and Energy (ACE) research program engages with the EPA’s partners and a wide range of stakeholders to provide research to inform policy and regulatory action. The EPA relies on this scientific and technical information to understand the interplay among air quality, climate change and the changing energy landscape. With ACE research, the EPA can effectively meet Clean Air Act (CAA) and other statutory and regulatory obligations. The ACE research program is organized around three interlinked themes, which support the EPA’s priority of addressing climate change and improving air quality and the President’s call to action on climate change:

- *Assessing Air Quality and Climate Impacts*
- *Preventing and Reducing Emissions*
- *Preparing for and Responding to Changes in Climate and Air Quality*

The ACE research program is integrated with other EPA research programs. For example, ACE collaborates on nutrient management and global change impacts research with the Safe and Sustainable Water Resource (SSWR) and the Sustainable and Healthy Communities research programs, and this research is reflected in the data synthesis of the Human Health Risk Assessment program’s integrated science assessments and multi-pollutant science documents.

Recent accomplishments include:

Next Generation Air Monitoring

- EPA scientists developed and tested a prototype solar powered air quality measurement system for use in community spaces such as parks and other locations where people gather. The autonomous system is one instance of advances designed to meet the 21st century air pollution data needs of individuals, communities, and agencies. The system’s success resulted in requests for installation from 23 communities across the U.S., from which five have been selected.
- EPA scientists participated in the DISCOVER-AQ (Deriving Information on Surface Conditions from Column and VERTically Resolved Observations Relevant to Air Quality) study with NASA, NOAA and university collaborators to evaluate satellite-based remote

sensing methods. The study took place in Denver and provides information on the relationship between EPA's current ground-based measurement technologies and remote sensing. EPA also partnered with local schools to evaluate the use of novel air pollution sensors, involving students and teachers in measuring air pollution.

Air Quality Modeling Improvements

- The EPA has updated the Community Multi-Scale Air Quality Model to include capabilities to track source emissions of specific air pollutants that react in the atmosphere to form more hazardous air pollutants. This allows States to better target emissions reductions to meet air quality standards that protect human health and the environment.
- EPA research showed that human exposures to common air pollutants, in sequence and in combination, often result in more severe cardiovascular and respiratory effects than to single pollutants alone.
- The EPA has developed an Atmospheric Smog Simulator to study the health effects of synthetic photochemical atmospheres consisting of multiple precursors and air pollutants. The simulator can produce realistic mixtures of ozone, PM and other secondary air pollutants simulating conditions in different regions of the U.S.
- As part of a broad government effort, EPA researchers developed new procedures to evaluate household cook stoves for performance and air pollution emissions that have been widely adopted. These testing procedures will be the basis for a new International Organization for Standardization (ISO) standard to evaluate cook stoves worldwide that will provide better information to guide decisions about stove designs that protect the health of women and children, while reducing emissions of black carbon, an air pollutant that contributes to climate change.

Climate Change Results

- The EPA has developed improved methods for downscaling results of global climate models to provide regional spatial scales relevant to EPA decision makers. Downscaling of global climate models better demonstrates how climate change may affect key influences on air pollution formation and transport, including atmospheric circulation, summertime precipitation, effects of lakes, and extreme events. Downscaled data improves resolution and, in some cases, location of important meteorological parameters.
- The EPA has developed and applied the MARKet ALlocation (MARKAL) energy system model in order to evaluate how water availability might alter how the energy system evolves to meet emission reduction goals. In one application of the model, constraining water consumption significantly changed the potential mix of energy generating technologies used to meet electricity demand.

FY 2016 Activities and Performance Plan:

Below are examples of several major ACE research efforts planned for FY 2016.

Supporting NAAQS through a Multi-Pollutant Assessment of Emissions, Exposures, and Effects:
The EPA's research has provided the scientific basis for air quality standards and management practices that are far-reaching in their impacts. In FY 2016, ACE will continue to provide the underlying research to support the agency's implementation of the CAA, which mandates the

review of the National Ambient Air Quality Standards (NAAQS). The EPA research currently provides 40 percent of the cited fundamental data used to develop the NAAQS levels.²²

The EPA also will examine the effects from exposures to air pollutant *mixtures* rather than *single contaminants* to reflect real-life exposure to better protect the public and the environment. Research will study exposures and health impacts of pollutant mixtures found in urban settings (e.g., mixtures of automobile exhaust and industrial emissions) and other relevant settings (e.g., near ports and rails). This and other air pollutant research will inform the EPA on the causes of air pollution related health effects. For example, the EPA will study the cardiovascular and respiratory effects associated with exposures to pollutant mixtures and will investigate what factors, such as disease, genetics and social factors, impact susceptibility to these health impacts.

Modeling and Decision Support Tools to Support Air Quality Management:

In FY 2016, the ACE research program will continue to develop models that support effective air quality management aimed at protecting public health and the environment. State and local agencies rely on such tools to implement NAAQS. Improvements to the Community Multiscale Air Quality (CMAQ) modeling system²³ will increase users' (over 3,700 users worldwide) capabilities to evaluate strategies for reducing air pollution. Improvements also will help users determine what approach best fits their situation by accurately modeling how levels of ozone, particulate matter, and hazardous air pollutant concentrations change when different emission reduction alternatives are used. ACE also is developing CMAQ's capabilities to evaluate the impacts of a changing climate on air quality and to more effectively model community scale air quality.

ACE also is working to integrate air, water, and land-use modeling to understand and estimate integrated, multimedia impacts of air pollutants on air quality, water quality, and other ecological endpoints. The research, integrated across several EPA research programs, allows policymakers to design more effective management practices for nitrogen, supporting decision making at the community, state and national levels.

Improving Air Pollution Measurements:

In FY 2016, the ACE program will continue to develop and evaluate source and ambient air monitoring methods required to support implementation of regulations, including effective compliance and enforcement. The EPA also is working with the National Aeronautics and Space Administration (NASA) to examine how satellites may be used to improve air quality management activities.

Assessing the Impacts of Climate Change and Developing Effective Responses:

In alignment with the President's Climate Action Plan,²⁴ the EPA will continue to coordinate research with other agencies through the U.S. Global Change Research Program (USGCRP) and support USGCRP priority research topics, with particular emphasis on developing actionable science to inform local, state, and national decisions on how to respond to our changing climate. ACE research on models and observations of environmental changes related to climate change are

²² For more information, <http://www.epa.gov/ncea/isa/>

²³ For more information, <http://www.cmaq-model.org/>

²⁴ For more information, <http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf>

critical to the EPA’s ability to improve and maintain clean air and water and healthy ecosystems. This research allows the EPA to understand and prepare for climate change impacts, informing decisions at local, state, and national levels through ACE-developed information and tools for communities, states, and businesses to use to build resilience to climate change. For example, ACE research will inform possible revisions to design guidelines for new, and modifications to existing, water treatment systems to enable them to better prepare for climate-driven extreme weather events that can overwhelm treatment systems and degrade water quality.

In coordination with other EPA research programs and federal agencies, ACE will focus on understanding how climate change is affecting vulnerable human populations and ecosystems. For example, the EPA is working with the Department of Health and Human Services, National Oceanic and Atmospheric Administration (NOAA), the U.S. Department of Agriculture, and others to study the impacts of climate change on human health. This research provides information for local and state public health officials to prepare for the health impacts of climate change. The EPA also will develop and apply computational tools for analyses of potential co-benefits and trade-offs of various future energy scenarios and air quality management practices in a changing climate.

Understanding the Environmental Impacts of Energy Production and Use:

In FY 2016, the EPA is collaborating with the Department of Energy (DOE) and the Department of the Interior (DOI) under a Memorandum of Agreement to evaluate the potential impacts of unconventional oil and gas operations, including those related to air quality. The ACE research program will evaluate the environmental impacts of energy production and use across the full life cycle related to possible future energy production scenarios. This research will develop and apply models to evaluate how possible future changes in energy technology may affect air pollutant and greenhouse gas (GHG) emissions and water demand, as well as other environmental and human health endpoints. This complements efforts in the SSWR research program to study the potential impacts of hydraulic fracturing on water quality and drinking water resources.

Research Partnerships:

ACE will continue its successful research partnerships with academia and private sector research organizations through the EPA’s ACE Research Centers and the Health Effects Institute. In order to approach air pollution and climate change sustainably, the EPA continues to strengthen interactions with other agencies, including the NOAA, the DOE, the USDA, the National Institutes of Health, the Federal Highway Administration, and the National Association of Clean Air Agencies. These partnerships are critical to better inform decision makers to protect human health and the environment, and achieve research goals in an ever shrinking resource environment.

Performance Targets:

Measure	(AC1) Percentage of products completed on time by Air, Climate, and Energy research program.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				100	100	100	100	100	Percent
Actual				100	92	87			

Measure	(AC2) Percentage of planned research outputs delivered to clients for use in taking action on climate change or improving air quality.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				100	100	100	100	100	Percent
Actual				77	83	92			

The table reflects the ACE program’s annual performance measures. The EPA uses these measures to assess our effectiveness in delivering needed products and outputs to clients and decision-makers, at the federal government level.

The EPA has established a standing subcommittee under The EPA’s Board of Scientific Councilors for the ACE program to evaluate its performance and provide expert feedback to the agency. In addition, the EPA will meet regularly with both the BOSC and SAB over the next several years to seek their input on topics related to research program design, science quality, innovation, relevance and impact, within the context of the agency’s Strategic Plan.

The EPA collaborates with several science agencies and the research community to assess our research performance. For instance, the EPA is partnering with the National Institutes of Health, the National Science Foundation, the DOE, and the USDA. The agency also will work with the White House’s Office of Science and Technology Policy. The EPA supports the interagency Science and Technology in America’s Reinvestment, Measuring the Effect of Research on Innovation, Competitiveness and Science (STAR METRICS) effort.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$2,481.0 / +0.7 FTE) This change reflects an increase of \$1,812.0 to fixed and other costs for the Agency recalculation of base workforce costs due to adjustments in salary, working capital fund, and benefits, and an increase of \$669.0 and 0.7 FTE for essential research program support costs.
- (-\$1,506.0 / -19.6 FTE) This program change reduces multipollutant research that supports air quality management. In FY 2016, EPA will enhance its research related to air pollution monitoring for communities to investigate how low cost sensors can be used to understand and avoid air pollution exposure and how these measurements relate to more costly techniques.
- (+\$3,643.0 / +4.7 FTE) This increase allows EPA to continue to assess the impacts of climate change to provide data and tools necessary for EPA, state, and local governments to effectively respond to the potential human health and environmental impacts. Activities include enabling the EPA to investigate the impact of a changing climate on air pollution emissions.
- (+\$3,818.0 / +4.5 FTE) This increase reflects support for studying the potential impacts of hydraulic fracturing on air quality within the ACE research program, as part of the interagency effort with DOE and DOI.

Statutory Authority:

CAA 42 U.S.C. 7401 et seq. Title 1, Part A – Sec. 103 (a) and (d) and Sec. 104 (c); CAA 42 U.S.C 7402(b) Section 102; CAA 42 U.S.C 7403(b)(2) Section 103(b)(2); Clinger Cohen Act, 40 U.S.C 11318; Economy Act, 31 U.S.C 1535; EISA, Title II Subtitle B; ERDDA, 33 U.S.C. 1251 – Section 2(a); Intergovernmental Cooperation Act, 31 U.S.C. 6502; NCPA; NEPA, Section 102; PPA; USGCRA 15 U.S.C. 2921.

Program Area: Research: Safe and Sustainable Water Resources

Research: Safe and Sustainable Water Resources

Program Area: Research: Safe and Sustainable Water Resources

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems; Protect Human Health

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Science & Technology	\$120,085.3	\$107,434.0	\$111,022.0	\$3,588.0
Total Budget Authority / Obligations	\$120,085.3	\$107,434.0	\$111,022.0	\$3,588.0
Total Workyears	411.2	411.9	404.0	-7.9

Program Project Description:

The Safe and Sustainable Water Resources (SSWR) research program provides scientific results and innovative technologies that are needed to protect the chemical, physical and biological integrity of the Nation’s waters, and to ensure safe drinking water and water systems. The SSWR research program uses an integrated, systems approach to purpose-driven, state-of-the-art research for innovative scientific and technological solutions that support watershed integrity and human and ecosystem health.

The SSWR research program supports the agency’s goal of protecting the Nation’s waters, which includes support to the EPA’s National Water Program and Regional Offices in achieving their statutory and regulatory obligations under the Safe Drinking Water Act (SDWA) and the Clean Water Act (CWA). SSWR support includes the following:

- Characterizing and managing risks to human health and the environment across the water continuum;
- Providing data, tools, and technical support for the development of drinking water and water quality criteria;
- Developing effective, systems-based watershed management approaches to protect and augment water resources through innovative monitoring and management techniques;
- Applying technological options to protect and restore water bodies by providing information on effective identification, treatment, and management alternatives; and
- Developing and demonstrating new integrated, economical approaches for water and wastewater treatment and resource recovery.

Although the EPA provides much of the scientific foundation for protecting the environmental and public health of the Nation’s water resources, it does not act alone. The agency’s SSWR program works with communities, cities, States, tribes, and other federal agencies in this effort.

Recent Accomplishments include:

Response to Toledo, Ohio Drinking Water Ban due to Cyanobacteria Toxins

During an emergency harmful algal bloom event in August 2014, the State of Ohio EPA made a request to USEPA’s research laboratory in Cincinnati to provide technical assistance and perform

water sample analyses for cyanobacterial toxins for the City of Toledo's drinking water utility. Ohio EPA personnel were aware of USEPA's expertise, analytical capabilities, and research in drinking water treatment and cyanobacterial toxins. Agency researchers performed analyses for two purposes: 1) to investigate the presence of cyanobacterial toxins, and 2) to help identify the optimal approach for controlling cyanobacterial toxins in the plant and distribution system. During the event, EPA had discussions with the Ohio EPA and the City of Toledo regarding sample handling and procedures.

Stormwater Calculator

The National Stormwater Calculator (SWC) is a desktop application that estimates the annual amount of stormwater runoff from a specific site, based on local soil conditions, slope, land cover, historical rainfall records, and projected climate scenarios. The SWC helps communities estimate the reduction of stormwater runoff that can be achieved by implementing various green infrastructure and low impact design options, with current and future scenarios.

National Wetland Condition Assessment

The EPA led a multi-agency collaboration on the first-ever report on wetland ecological condition as part of its National Aquatic Resource Surveys. The new wetland condition assessment builds on the U.S. Fish and Wildlife Service's data on status and trends of wetland acreage to describe the ecological condition of the Nation's wetlands, to advance the science of wetland monitoring and assessment, and to help build State and Tribal wetland monitoring and assessment capabilities.

Small Drinking Water Systems

The EPA is developing and demonstrating innovative technologies and approaches for small drinking water and wastewater systems. Adoption of these novel solutions by communities and their state agencies is supported by a comprehensive outreach strategy that includes collaboration between the EPA and the Association for State Drinking Water Administrators to host an annual small systems workshop. Other outreach activities include a new monthly seminar series for state drinking water and wastewater system operators (starting in January 2015), a booklet of compiled EPA small systems research, technical fact sheets, a new website, and various social media tools.

Contaminants of Emerging Concern

Source water and treated drinking water from 25 water treatment plants were analyzed for concentrations of more than 250 chemical and microbial contaminants of emerging concern (CECs). The next step will be to conduct human and ecological health risk assessments and the data will be analyzed in terms of individual and groups of contaminants.

Connectivity Report

The EPA's final report summarizing the current scientific understanding about the connectivity and mechanisms by which streams and wetlands affect the chemical, physical and biological integrity of downstream waters is scheduled to be released in early 2015. The final report, "Connectivity of Streams and Wetlands to Downstream Waters: A review and synthesis of the scientific evidence", will reflect the EPA's responses to comments received from the public and the Science Advisory Board.

Hydraulic Fracturing

EPA will continue its *Study of Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources*, including a draft report scheduled to be released for peer review in early 2015. This report will provide a synthesis of the state of the science, including the results of research focused on whether hydraulic fracturing impacts drinking water resources, and if so, what are the driving factors. Following the release of the draft report, the public, industry, as well as other federal agencies, state and interstate regulatory agencies, non-governmental organizations, tribes, and others will continue to have the opportunity to provide input and comment through enhanced stakeholder engagement and engagement through the Science Advisory Board (SAB) peer review process.

FY 2016 Activities and Performance Plan:

The overarching watershed approach to the SSWR program's drinking water, wastewater, stormwater, and ecosystems research recognizes the dynamic 'one water' hydrologic cycle. Integrated throughout the program are the goals of a sustainable environment, economy and society as well as the overarching drivers of changing climate, extreme events, land use, energy, agriculture and demographic scenarios.

In order to better achieve these goals in FY 2016 and beyond, the SSWR program will be reorganized around four interrelated topics:

- **Watershed Sustainability:** Gathering, synthesizing, and mapping the necessary environmental, economic, and social information of watersheds, from local to national scales, to determine the condition, future prospects, and restoration potential of the Nation's watersheds;
- **Nutrients and Harmful Algal Blooms (HABs):** Conducting EPA nitrogen and co-pollutant (e.g., phosphorus, sulfur, sediment) research efforts for multiple types of water bodies and coordinating across media (water, land and air) and various temporal and spatial scales, including support for developing numeric nutrient criteria, decision-support tools, and cost-effective approaches to nutrient reduction;
- **Green Infrastructure and Stormwater:** Developing innovative tools, technologies, and strategies for managing water resources (including stormwater) today and over the long term as the climate and other conditions change; and
- **Water Systems:** Developing tools and technologies for the sustainable treatment of water and wastewater, and promoting the economic recovery of water, energy, and nutrient resources through innovative municipal water services and whole system assessment tools. This area focuses on small water systems and can be scaled up to larger systems.

In FY 2016, the EPA will support these four topic areas by focusing on specific research objectives as outlined below.

Watershed Sustainability

Research objectives:

- Assess, map and predict the integrity, resilience, and restoration potential of the Nation's water resources.

- Conduct science to support new or revised water quality criteria to protect human and aquatic life.
- Protect water resources related to sustainable resource extraction.
- Develop a national water quality benefits modeling framework.
- Integrate watershed management for sustainable outcomes.

The EPA will continue to develop and improve the interoperability of models to assess, map and predict watershed integrity by building on and utilizing large volumes of environmental data, Geographic Information System (GIS), and modern computing power. These efforts will include linkages to agency's EnviroAtlas. Building on these modeling and mapping efforts, the EPA will determine factors that contribute to degraded conditions and watershed resilience and recovery. The EPA will continue research support for the agency's Water Program in 1) deriving aquatic life criteria, with special attention to groups of pollutants and emerging pollutants; and 2) implementing existing and new EPA water quality regulations (e.g., ammonia ambient water quality criteria).

In addition, the agency's research program will continue to provide sampling designs, indicators, and other support for the rotating national surveys of lakes, streams, rivers, wetlands, and estuaries to support the Water Program. Innovations will include: (a) integrating ecological condition assessments with human health and economic dimensions, and (b) deployment of more rapid, cost-effective and innovative methods of assessment.

Watershed integrity in relation to existing and emerging trends in resource extraction (e.g., energy and minerals) and water storage and recovery will be evaluated using life-cycle analyses to assist decision makers (federal; state, tribal, and local; industry and energy sectors; and the public) in selecting sustainable practices. Hydraulic fracturing for oil and gas is one example of energy sector activities that has the potential to impact surface and subsurface water resources. Based on recommendations from the SAB²⁵, and the knowledge gained in the draft 2015 report, *Study of Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources*, and in coordination with Federal partners, the EPA will study potential impacts of hydraulic fracturing on water quality and ecosystems to support sustainable approaches to oil and natural gas development and production.

A collaborative, cross-agency economic analysis will be undertaken to account for the value of water benefits and to provide tools for determining changes in value associated with changes in water quality, ecosystem services of water bodies, and watershed integrity.

The EPA will provide accessible information, sustainability indicators, models and other tools encompassing three dimensions of sustainability. This information will include multi-sector systems analysis of major environmental changes (e.g., extreme events and climate change).

²⁵ [http://yosemite.epa.gov/sab/sabproduct.nsf/CC09DE2B8B4755718525774D0044F929/\\$File/EPA-SAB-10-009-unsigned.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/CC09DE2B8B4755718525774D0044F929/$File/EPA-SAB-10-009-unsigned.pdf)

Nutrients and Harmful Algal Blooms (HABs)

Research objectives:

- Reduce impacts of harmful algal blooms
- Inform the development of nutrient thresholds and targeting actions
- Improve nutrient management practices, metrics of benefits, accountability and communication.

EPA research will assist the agency's Water Program, States, communities, and other stakeholders by: (1) providing the scientific basis to establish nutrient targets to sustain ecosystem and human health, and the ecosystem services that support human health and the economy, and (2) developing improved data, tools, and technologies to allow decision makers to determine priority systems for management actions.

In partnership with EPA Offices and Regional Offices, other federal agencies, States, Tribes, and communities, ORD will improve technologies and management practices to monitor and reduce nutrient loadings. The EPA will focus on providing technical support to design sustainable approaches beyond current regulatory approaches, and for important unregulated sources of nitrogen and co-pollutants, in high priority areas that are susceptible to harmful algal blooms and other threats to drinking water.

In addition, the agency will develop the metrics, monitoring designs, and methods to assess the changes in ecosystem, human health, and societal benefits resulting from application of management actions and technologies. Efforts also will help to effectively communicate the need, and how to reduce loadings, to the variety of contributing stakeholders for improved results.

The nutrient work described for this research topic will address reducing nitrogen and phosphorous loading, which can lead to harmful algal blooms. EPA research will also evaluate the relationship of changing water temperatures and the development and duration of algal blooms, and the proclivity of algae to produce cyanotoxins. Additional work on harmful algal blooms will include improving the detection and treatment of algae and cyanobacteria, and the harmful toxins they produce, in watersheds and water systems.

Green Infrastructure and Stormwater

Research objectives:

- Advance tools and models for Green Infrastructure (GI) implementation in communities.
- Provide information and guidance through community partnerships.

The EPA will continue leading research on the development, adaptation and assessment of models, tools and guidance to provide community planners and decision makers the ability to integrate GI practices and stormwater runoff into their planning options. These tools will complement more complex tools, such as the Storm Water Management Model which provides for more detailed implementation and design of green and gray infrastructure and the High Service Pump Stations for watershed pollutant loading reductions.

On-going new community pilot studies will study the effectiveness of GI pilots and potential co-benefits to develop guidance and lessons learned for other communities. Community partnerships

also will provide information on the role of GI on infiltration, groundwater recharge, excess nutrient loading on wetlands, and potentially aquifer storage and recovery.

Water Systems

Research objectives:

- Develop, evaluate, and facilitate adoption of technologies to support, advance and transform water systems.
- Ensure the safety of the Nation’s waters.

This work will provide a continuum of research, ranging from application of the newest tools that address current community concerns and inform regulatory actions, to assessment of new monitoring and treatment approaches, and allow communities to consider more innovative restructuring of water systems to meet sustainability and resiliency goals. Research will assess the health and environmental impacts of known and emerging risks of individual and groups of chemical and biological contaminants, including algal toxins and cyanotoxins, in drinking water and its sources.

Research on current water systems, especially for small systems, will include risk assessment and risk management to support federal regulations and guidance and regional, state, and community programs and rule implementation. Transitioning to the next steps in advanced water system technologies, EPA research will develop, test, and promote adoption of drinking water, stormwater, and wastewater technologies that will protect human health and the environment, while maximizing recovery of embedded resources (e.g., nutrients, energy, and metals). These efforts will support the longer term transformation of water systems, for which the EPA will conduct integrated sustainability assessments, develop novel approaches, prioritize risks, and provide a framework for decision making, related to alternative approaches to existing water systems.

Water reuse will be an essential component of a sustainable water supply by mitigating water withdrawals from surface and groundwater sources for competing demands. The EPA will have a key role in establishing guidelines for safe potable and non-potable use for domestic, energy and agricultural purposes. Resource recovery and water reuse offer opportunities for collaboration within the EPA’s Water Science and Technology Cluster, and with other federal agencies, industry and international organizations to expedite the development and market introduction of cost effective and low carbon footprint technologies.

Performance Targets:

Measure	(SW1) Percentage of planned research products completed on time by the Safe and Sustainable Water Resources research program.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				100	100	100	100	100	Percent
Actual				86	70	90			

Measure	(SW2) Percentage of planned research outputs delivered to clients and partners to improve the Agency's capability to ensure clean and adequate supplies of water that support human well-being and resilient aquatic ecosystems.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				100	100	100	100	100	Percent
Actual				50	100	100			

The table reflects the SSWR program's annual performance measures. EPA uses these measures to assess its effectiveness in delivering needed products and outputs to clients (decision makers, states, and local governments).

The EPA has established a standing subcommittee under the EPA's Board of Scientific Councilors for the SSWR program to evaluate its performance and provide expert feedback to the agency. In addition, the EPA will meet regularly with both the BOSC and SAB over the next several years to seek their input on topics related to research program design, science quality, innovation, relevance and impact, within the context of the agency's Strategic Plan.

The agency collaborates with several science agencies and the research community to assess our research performance. For example, the EPA is partnering with the National Institutes of Health, National Science Foundation, Department of Energy, Department of Agriculture, U.S. Geological Survey, U.S. Fish and Wildlife Service, Department of Defense, National Aeronautics and Space Administration, National Oceanic and Atmospheric Administration, and others. The EPA also works with the White House's Office of Science and Technology Policy and supports the interagency Science and Technology in America's Reinvestment—Measuring the Effect of Research on Innovation, Competitiveness and Science (STAR METRICS) effort.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$296.0 / - 1.3 FTE) This net change reflects an increase of \$1,720.0 to fixed and other costs for the Agency recalculation of base workforce costs due to adjustments in salary, working capital fund, and benefits, and a decrease of \$1,424.0 and 1.3 FTE for essential research program support costs.
- (+\$3,715.0 / +5.5 FTE) In FY 2016, the EPA will respond to peer review comments from the agency's Science Advisory Board (SAB) in order to finalize the *Study of Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources*. In addition, the EPA, in coordination with Federal partners, will study potential impacts of hydraulic fracturing on water quality and ecosystems to support sustainable approaches to oil and natural gas development and production, consistent with the Federal Multiagency Collaboration on Unconventional Oil and Gas Research.

- (+\$675.0 / -10.6 FTE) This net program change supports the continued development of research on water systems and nutrients.
- (-\$1,098.0 / -1.5 FTE) This program change reflects the completion of work to develop and test the performance of quantitative tools for recreational water quality assessments.

Statutory Authority:

SDWA Part E, Sec. 1442 (a)(1); CWA Title I, Sec. 101(a)(6) 33 U.S.C. 1254 – Sec 104 (a) and (c) and Sec. 105; ERDDA 33 U.S.C. 1251 – Section 2(a); MPRSA Sec. 203, 33 U.S.C. 1443; ODBA Title II; SPA; CVA; WRDA; WWWQA; MPPRCA; NISA; CZARA; CWPPRA; (ESA; NAWCA; FIFRA 7 U.S. C. 135 et seq; TSCA U.S. C. 136 et seq.

Program Area: Research: Sustainable Communities

Research: Sustainable and Healthy Communities

Program Area: Research: Sustainable Communities

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inland Oil Spill Programs	\$285.1	\$664.0	\$513.0	(\$151.0)
<i>Science & Technology</i>	<i>\$160,800.7</i>	<i>\$149,975.0</i>	<i>\$139,172.0</i>	<i>(\$10,803.0)</i>
Leaking Underground Storage Tanks	\$327.7	\$320.0	\$348.0	\$28.0
Hazardous Substance Superfund	\$14,450.2	\$14,032.0	\$12,220.0	(\$1,812.0)
Total Budget Authority / Obligations	\$175,863.7	\$164,991.0	\$152,253.0	(\$12,738.0)
Total Workyears	510.4	503.5	478.0	-25.5

Program Project Description:

The EPA’s Sustainable and Healthy Communities (SHC) research program conducts research and develops decision support tools to serve two primary customers: 1) federal decision makers at the U.S. EPA including the Office of Solid Waste and Emergency Response, EPA’s Regional Offices, and other EPA program offices; and 2) community decision makers across the country. SHC research products inform and empower decision-makers to equitably integrate human health, socio-economic, and environmental factors into their decisions. SHC research products also provide the EPA’s regional and program offices with tools to identify more cost effective means to implement regulations and ensure regulatory compliance. The SHC program provides research on innovative and effective non-regulatory approaches to protecting human and environmental health. This program directly supports the agency’s strategic goal of cleaning up communities and advancing sustainable development. It also supports agency cross-cutting strategies of making a visible difference in communities across the country and enhancing state, Tribal, and local partnerships.

The EPA’s research and decision support tools are important because communities rarely focus on social, economic, health and ecological outcomes when making critical decisions about transportation, materials management and solid waste, land use, and the built environment. SHC research products provide an opportunity for decision makers to utilize an integrated systems approach to simultaneously address all of these objectives while avoiding unanticipated consequences. As a result, communities have an improved ability to proactively make environmental management choices based on a full accounting of the costs, benefits, and tradeoffs among social, economic, health and ecological outcomes of alternative management actions.

These research products are important to the agency because they support critical regulatory and policy needs. These include managing waste and materials, remediating contaminated sites, protecting children’s health, ensuring environmental justice, and linking environmental quality, including ecosystem goods and services, to community health and economic outcomes.

Recent accomplishments include:

- **EPA’s EnviroAtlas: Foundation for the White House’s EcoINFORMA Release** – In late 2014, The White House launched “Ecoinformatics-based Open Resources and Machine Accessibility (EcoINFORMA),” which expands the availability and interoperability of biodiversity, ecosystems, and ecosystem services information, and provides access to ecosystem-related data and information resources through Ecosystems.data.gov. A major pillar of EcoInforma is EPA’s EnviroAtlas, a robust collection of interactive tools and resources that allow users to explore and better understand the link between the environment, public health, and “ecosystem services” such as clean air and water, and a stable climate.
- **Advancing Vapor Intrusion Monitoring and Mitigation** – Exposures to toxic vapors lead to serious health risks. EPA researchers and collaborators are advancing the science of monitoring and mitigating vapor intrusion, when radon, volatile organic compounds, or other hazardous gases that move from contaminated groundwater through the soil and into the air of homes and other buildings. The EPA released results, via a draft report, of an extensive study conducted at a pre-1920 residential duplex outfitted with a suite of air monitors to measure and track changes in the composition of indoor air. This research compares weekly measurements, real-time observations from continual monitoring of a host of variables (barometric pressure, air and soil temperature, heating and air conditioning operations, and others). This research includes modeling scenarios and is one of the most in-depth analyses on vapor intrusion, building on several years’ worth of data collected at the research house. Results provide science-based guidance to help EPA’s Office of Solid Waste and Emergency Response and other decision makers in protecting people and inform actions to improve indoor air quality.
- **Technical Support for EPA Regions and Program Offices** – EPA researchers provided assessment and technical assistance through the Technical Support Centers (TSCs) to all ten EPA Regions, including sites in Alaska, Hawaii, and Puerto Rico. When on-site work is required, EPA’s TSCs mobilize specialized teams of field scientists to help Regions in responding to risks and contamination. Certain TSCs specialize in groundwater contamination and treatment, monitoring and site characterization, engineering, and ecological assessment. The TSCs are highly regarded by Regions for providing a critical link between research and real-world problems.
- **Science for Oil Spill Response and Deepwater Horizon Trials** – EPA products served as deposition materials used by the U.S. Department of Justice in the 2014 Deepwater Horizon oil spill trials in New Orleans. A paper from the research published in “Environmental Science and Technology” (Conmy, et al., 2014) was a reference in the proposed rule for the National Contingency Plan, Subpart J amendments.
- **Ecosystem Service Production Function Library** – EPA researchers created the EcoService Models Library (ESML), a compilation of a host of different resources that collectively serve as a single site for those developing tools and models that illuminate the connections among healthy ecosystems and the ecosystem services they provide that

support and enhance human well-being. ESML was designed for use by scientists and economists who provide advice to communities, businesses and conservation organizations.

- **Advancing Tools to Identify and Quantify Human-Well Being** – EPA's Human Well-being Index (HWBI) assists decision makers in characterizing and quantifying the potential positive and negative effects that a variety of environmentally related decisions will have on human well-being. It incorporates multiple dimensions of sustainability (environment, economy, and society) and generates results that can be scaled from national to local levels. The tool helps communities live more sustainably.

FY 2016 Activities and Performance Plan:

In FY 2016, research in this area is organized into four inter-related themes:

- *Decision Support and Innovation* will use decision science, interactive social media, spatial analyses, and sustainability assessment methods to provide communities with tools to frame their decision options, outcomes and potential costs and benefits. These tools, developed in conjunction with EPA's program offices/states/local governments will increase the capacity for community stakeholders to examine the impacts of climate change and local, regional, and state planning decisions on ecosystems and human health and well-being.
- *Community Well-Being: Public Health and Ecosystem Goods and Services* will utilize the sciences of ecosystem services and human health to enable communities to assess how the natural and built environment affects the health and well-being of their residents. This research will address impacts in all communities including overburdened communities and tribes that are at risk for disproportionate environmental and health impacts.
- *Sustainable Approaches for Contaminated Sites and Materials Management* will build upon federal, regional and state experiences. This research aims to improve the efficiency and effectiveness of mechanisms that address land and groundwater contamination, including preventing and cleaning up fuel and oil spills. This research also will review and characterize innovative approaches that communities can use to:
 - Reduce new sources of contamination,
 - Enable recovery of energy, materials, and nutrients from waste,
 - Enable brownfields sites to be put to new, economically productive uses that benefit communities; and
 - Apply waste management and contaminated sediments remediation technologies in specific geographic locations.
- *Integrated Solutions for Sustainable Outcomes* research will develop methods and data that will allow communities to consider the full costs and benefits of their decisions. For example, SHC will review and characterize systems modeling approaches that communities can use to account for the linkage among:
 - Waste and materials management,
 - Building codes and zoning for land use planning,

- Transportation options, and,
- Provision of infrastructure, including water and energy.

As an integrated demonstration of these themes, the EPA is working with community decision-makers in Durham, NC to provide them with tools to account for the full cost of alternative policy and management approaches. The over-arching goal of this research is to integrate issue-specific tools and approaches with findings from other components of the SHC research program to:

- Inform a proof of concept pilot study in Durham, NC to incorporate the tools described above; and
- Create a framework to assist communities in their efforts to achieve a more socio-economically and environmentally responsible state.

In FY 2016, the SHC research program also will continue to invest resources in ongoing research to develop models, data bases, metrics and other decision-support tools that will empower communities to make decisions regarding sustainable approaches to environmental protection. This will allow EPA to increase its capacity to provide community based decision support tools which consider ecosystem goods and services, contaminated sites, multimedia pollutants within environmental justice communities, and the beneficial use of sustainable materials. In addition, the SHC program will continue to develop tools for at risk communities and tribes to examine the impacts of climate change adaptation on ecosystems goods and services to support the agency’s goal of working with communities to address climate change.

Performance Targets:

Measure	(HC1) Percentage of planned research products completed on time by the Sustainable and Healthy Communities research program.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				100	100	100	100	100	Percent
Actual				100	83	81			

Measure	(HC2) Percentage of planned research outputs delivered to clients, partners, and stakeholders for use in pursuing their sustainability goals.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				100	100	100	100	100	Percent
Actual				50	68	100			

This table reflects the SHC program’s annual performance measures. The EPA uses these measures to assess our effectiveness in delivering needed products and outputs to clients (decision-makers, states, and local governments).

The EPA has established a standing subcommittee under ORD’s Board of Scientific Councilors (BOSC) for the SHC program to evaluate its performance and provide expert feedback to the agency. In addition, ORD will meet regularly with both the BOSC and Science Advisory Board (SAB) over the next several years to seek their input on topics related to research program design, science quality, innovation, relevance and impact, within the context of the agency’s Strategic Plan.

The EPA collaborates with several science agencies and the research community to assess our research performance. For example, the EPA is partnering with the National Institutes of Health, National Science Foundation, Department of Energy, and Department of Agriculture. The EPA also works with the White House's Office of Science and Technology Policy and supports the interagency Science and Technology in America's Reinvestment—Measuring the Effect of Research on Innovation, Competitiveness and Science (STAR METRICS) effort.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$3,190.0 / + 5.1 FTE) This change reflects an increase of \$2,726.0 to fixed and other costs for the Agency recalculation of base workforce costs due to adjustments in salary, working capital fund, and benefits, and an increase of \$464.0 and 5.1 FTE for essential research program support costs.
- (-\$11,107.0) Funding for the EPA's Science to Achieve Results (STAR) and the Greater Research Opportunities (GRO) fellowship programs will be reorganized as part of a comprehensive reorganization to facilitate a cohesive national strategy of STEM education programs to increase the impact of Federal investment in four areas: K-12 instructions; undergraduate education; fellowships and scholarships; and information education.
- (+\$3,210.0 / -0.4 FTE) This net program change increases funding to support community-based research and data collection and analysis to understand disparities in disease susceptibility. Research will assess the cumulative impacts of exposure to chemical and other community-based environmental stressors by identifying and measuring biological markers of exposure to these stressors.
- (-\$1,948.0 / -5.0 FTE) This program change decreases funding for impacts research on health-related responses to environmental stressors. This will reduce the number of competitive awards to People, Prosperity and the Planet (P3) program applicants from academic institutions. P3 is part of EPA's Science, Technology, Engineering and Math (STEM) program.
- (-\$3,118.0 / -13.8 FTE) This program change decreases funds for ecosystem services research. This reduction will reduce research designed to incorporate sustainability approaches into decision support tools.
- (+\$852.0 / +1.0 FTE) This program change will expand the scope of EPA's Report on the Environment (ROE) to develop local and regional environmental indicators to assist states and tribes with meeting environmental objectives. This will complement current national-scale indicators. This is consistent with recommendations previously provided by the EPA's SAB regarding the scope of the ROE.
- (-\$1,882.0 / -9.8 FTE) This program change decreases funding for sustainability assessment and research on energy from organics in support of the EPA's Green

Challenge. This reduction impacts the development of Sustainability Assessment Guidelines that are intended to be used by EPA's program offices and the States.

Statutory Authority:

Clean Air Act, Sections 103 and 104. 42 U.S.C. 7403, 42 U.S.C. 7404,103; 104; Clean Water Act, Sections 101, 104 & 404, 33 U.S.C. 1254; Clinger Cohen Act, 40 U.S.C. 11318; Coastal Zone Management Act (CZMA), 16 U.S.C. 1451 - Section 302; Executive Order 12898, Executive Order 13045; Executive Order 13508; Environmental Research, Development & Demonstration Authorization Act; Endangered Species Act (ESA), 16 U.S.C. 1531 - Section 2; Federal Insecticide, Fungicide and Rodenticide Act Sections 18 and 20; Food Quality and Protection Act P.L. 104-170, 110 Stat. 1489, Intergovernmental Cooperation Act; 31 U.S.C. 6502 (provided specialized or technical services to state or local governments); Indoor Radon abatement Section 306; Marine Protection, Research and Sanctuaries Act, Section 203, 33 U.S.C. 1443; National Environmental Education Act, 20 U.S.C. 5503(b)(3) and (b) (11); National Environmental Policy Act of 1969, Sections 102 and 4332; Toxic Substances Control Act, Section 10. 15 U.S.C. 2609; Water Resources Research Act.

Program Area: Research: Chemical Safety and Sustainability

Research: Chemical Safety and Sustainability

Program Area: Research: Chemical Safety and Sustainability

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Science & Technology</i>	<i>\$99,468.2</i>	<i>\$87,507.0</i>	<i>\$101,445.0</i>	<i>\$13,938.0</i>
Total Budget Authority / Obligations	\$99,468.2	\$87,507.0	\$101,445.0	\$13,938.0
Total Workyears	285.7	304.1	306.4	2.3

Program Project Description:

The EPA’s Chemical Safety for Sustainability Research Program (CSS) is designed to strengthen the agency’s ability to evaluate and predict the potential environmental and human health impacts from use of manufactured chemicals throughout their lifecycle. More importantly, CSS research results are made transparently available, and translated to provide solutions and technical support to our agency partners and external stakeholders, including states, regions, communities, environmental and public health advocacy groups, as well as diverse industries upstream and downstream of chemical manufacturers.

In FY 2016, CSS will lead development of innovative science to support safe, sustainable design and use of chemicals and materials required to promote human and environmental health, as well as to protect vulnerable species and populations. CSS research will enable the agency to address impacts of existing chemicals and materials across the lifecycle as well as to anticipate impacts of new chemicals and emerging materials. The CSS research program also provides the scientific basis for evaluating complex interactions of chemical and biological systems to support agency decisions.

Recent accomplishments:

The CSS research program generates purposeful and impactful scientific results:

Accelerating the Pace of Chemical Screening - Through a collaboration with EPA’s Office of Chemical Safety and Pollution Prevention, EPA’s chemical safety researchers have begun to combine results of high throughput toxicity testing (ToxCast) and exposure estimations (ExpoCast)²⁶ to provide integrated activity-exposure estimates for enhanced prioritization of chemicals that may require additional testing in the agency’s Endocrine Disrupting Screening Program (EDSP21)²⁷. These data were released through a publicly accessible dashboard tailored to the EDSP program²⁸.

²⁶ <http://pubs.acs.org/doi/abs/10.1021/es503583j>

²⁷ <http://www.epa.gov/oscpmont/oscpendo/index.htm>

²⁸ <http://actor.epa.gov/edsp21/>

*Protecting Vulnerable Species and Groups*²⁹ - The CSS program leads the development of ORD's cross-cutting research roadmap on *Children's Environmental Health*. In this effort, CSS has been applying its computational capacity to develop complex models of prototype biological systems that can be used to predict the impact of exposures to chemicals during critical lifestages, such as early childhood, and that can also be used to evaluate the relevance of impacts observed in other reported studies. One such model for vascular development (vasculogenesis) is being assembled with the aim of predicting disruption of blood vessel development due to chemical exposures during critical windows of embryonic and fetal development.

*Fostering Sustainable Solutions: Emerging Materials (Nanomaterials)*³⁰ - As part of a large U.S. and international research collaboration, the CSS research program is leading research to understand the unique and novel properties of nanomaterials, changes in their physical and chemical structures during transport in the environment throughout their lifecycle. EPA scientists have developed methods for estimating how a variety of nanomaterials are released from products after they enter, are used, and age in the environment, and how exposures may occur. For example, copper treated lumber products were evaluated for their potential to leach copper and the potential for oral exposure and bioavailability of copper to the general public. The results of this research provide tools and methods to EPA's program offices as well as industry and other stakeholders to assess the safety of emerging materials incorporated into consumer products.

Incorporating 21st Century Science into Risk-Based Evaluations – EPA scientists translate and deliver targeted solutions to key partners across the Agency, and other state and federal environmental programs. This research also provides important input into other EPA signature research programs that advance community-level decisions through Human Health Risk Assessment (HHRA), for example through higher throughput risk assessments; Sustainable and Healthy Communities (SHC), for example through better estimates of consumer exposures; and Safe and Sustainable Waters (SSWR), through focused research on contaminants of emerging concern. (More Information about the CSS program can be found at <http://www.epa.gov/research/chemicalscience/>).

FY 2016 Activities and Performance Plan:

In FY 2016, the CSS program will continue to place overarching emphasis on the areas of computational toxicology, endocrine disrupting chemicals and emerging materials including engineered nanomaterials.

Computational Toxicology – FY 2016 provides a pivotal opportunity for the CSS computational toxicology (CompTox) research program to further realize the vision articulated by the National Academy of Sciences in its report, *Toxicity Testing in the 21st Century*³¹. In FY 2016, the CSS program aims to expand the breadth of its CompTox program to include a greater number of assays that can represent the biology of interest, more emphasis on estimating relevant exposures to individual and multiple chemicals, better integration of human and ecological risk evaluations, stronger focus on enhancing predictive capacity of the computational models and data both for

²⁹ <http://www.epa.gov/ncct/publications.html>

³⁰ <http://www.epa.gov/nanoscience/>

³¹ http://www.nap.edu/catalog.php?record_id=11970

evaluating the impact of existing chemicals and selecting safer alternatives. The progress of the program and its readiness for broad application to decisions will be further evaluated in a forthcoming study: Incorporating 21st Century Science into Risk Based Evaluations³². In FY 2016, the CompTox research program will:

- Engage stakeholder and partner communities to develop a framework for providing confidence in the use of high-throughput screening data to address the broad range of EPA risk assessment needs³³.
- Continue to adapt its modular iCSS dashboard for efficient customization by agency partners and for use in specific decision context.
- Enhance the relevance of ToxCast by expanding and developing new medium- and high-throughput assays and models to cover important biological systems.
- Focus on interpreting how environmental chemicals, individually and in mixed exposures can cause adverse health effects to humans and ecological systems. Advanced computational tools will be developed to quantitatively model complex systems dynamics that incorporate innovations in data, informatics, chemistry, and biology to predict cumulative risks.

The EPA works with the National Institutes of Health and the Food and Drug Administration (FDA) in the Tox21 collaboration to develop innovative testing methods that characterize chemical toxicity. One of the EPA's main contributions to Tox21 collaboration is the CSS program's ToxCast research effort.

The CSS program will build on efforts begun in FY 2015 to use the program's computational capacity to build and integrate 21st-Century exposure research with ToxCast and Tox21 data. This integration is a major step forward in the science and will advance risk-based decision making in support of the agency's goal of keeping communities safe and healthy. Specific applications of this effort include:

- Modeling and generating exposure data through ExpoCast, a state of the art chemical screening tool that provides rapid and cost efficient high throughput exposure information;
- Evaluating background exposure levels and biological relevance of environmental exposures
- Translating for fit-for-purpose risk-based prioritization through the CSS Dashboard

These applications complement efforts of the agency's Chemical Safety and Pollution Prevention program to apply high throughput and other 21st Century exposure information to Toxic Substances Control Act (TSCA) chemical prioritization.

Endocrine Disrupting Chemicals – In FY 2016, the EPA will continue to apply and demonstrate newer computational toxicology approaches that will hasten the pace and efficiency of the Endocrine Disruptor Screening Program (EDSP), enabling vastly improved capabilities to assess and manage the potential impacts of endocrine disrupting chemicals on the health of Americans,

³² <http://www8.nationalacademies.org/cp/projectview.aspx?key=49652>

³³ <http://ehp.niehs.nih.gov/123-A20/>

especially in children. The program will continue to consider the results of this research, including exposure estimations, for incorporation into its EDSP21 program as recommended by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Science Advisory Panel (July and December 2014). Ecological modeling research will advance tools to increase efficiencies and maximize available information to characterize the ecological impacts of chemical use. Research will be conducted to improve methods for assessing environmental disposition of new and/or methodologically challenging chemicals.

Emerging Materials (including Nanotechnology) – In FY 2016, the CSS program will continue to apply computational and knowledge driven approaches to amplify the impact of its research on engineered nanomaterials (ENMs) and on evaluation of emerging safer chemical alternatives. Results of this research will provide guidelines for evaluating potential impacts of emerging materials from the molecular design phase throughout their lifecycle in their applications to goods and products in commerce. These research directions are in keeping with the environmental health and safety research needs identified by the National Nanotechnology Initiative described in <http://www.nano.gov/you/environmental-health-safety>.

Performance Targets:

Measure	(CS1) Percentage of planned research products completed on time by the Chemical Safety for Sustainability research program.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				100	100	100	100	100	Percent
Actual				100	100	100			

Measure	(CS2) Percentage of planned research outputs delivered to clients and partners to improve their capability to advance the environmentally sustainable development, use, and assessment of chemicals.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				100	100	100	100	100	Percent
Actual				50	100	100			

The table reflects the CSS program’s annual performance measures. The EPA uses these measures to assess our effectiveness in delivering needed products and outputs to clients (decision-makers, states, and local governments).

To assess research performance and provide strategic direction, two Federal Advisory Committees – the Science Advisory Board (SAB) and the Board of Scientific Counselors (BOSC) – review the EPA’s research programs. In addition, the EPA has established a standing subcommittee under the EPA’s Board of Scientific Councilors for the CSS and HHRA programs to evaluate their performance and provide expert feedback to the agency. In July 2012, both the SAB-BOSC acknowledged the CSS program’s research progress and ambitiousness. The EPA will meet regularly with both the BOSC and SAB over the next several years to seek their input on topics related to research program design, science quality, innovation, relevance and impact, within the context of the agency’s Strategic Plan.

The EPA collaborates with several science agencies and the research community to leverage common efforts and assess our research performance. For instance, the EPA is partnering with the

National Institutes of Health, the National Science Foundation, the Department of Energy, the Food and Drug Administration (FDA), the U.S. Department of Agriculture, and the White House's Office of Science and Technology Policy (OSTP). The EPA has collaborated with many Federal Agencies to develop a government-wide approach to nanotechnology research through the Committee on Environment, Natural Resources, and Sustainability Charter (CENRS) at OSTP. EPA has also collaborated with FDA on the Tox21 program that is led by EPA. The EPA supports the interagency Science and Technology in America's Reinvestment, Measuring the Effect of Research on Innovation, Competitiveness and Science (STAR METRICS) effort. This interagency effort is helping the EPA to more effectively measure the impact of federal science investments on society, the environment, and the economy.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$3,558.0 / -1.6 FTE) This net change reflects an increase of \$1,660.0 to fixed and other costs for the Agency recalculation of base workforce costs due to adjustments in salary, working capital fund, and benefits, and an increase of \$1,898.0 and a decrease of 1.6 FTE for essential research program support costs.
- (+\$10,934.0 / +12.7 FTE) These resources will be used to expand the breadth of the CSS CompTox research program to include more assays that can cover the biology of interest (including thyroid), more emphasis on estimating relevant exposures to individual and multiple chemicals, and better integration of human and ecological risk evaluations. This is critical to enhancing and accelerating our understanding of chemical risks and exposure. Overall, this increase will significantly enhance the predictive capacity of the computational models and data both for evaluating the impact of existing chemicals as well as for selection of safer alternatives. In addition, these resources will support engagement of the stakeholder community to build confidence in the relevance and application of CompTox data for decisions by government, industry, and the public about the safety of chemicals.
- (-\$714.0 / +3.8 FTE) This impacts research efforts in ecological exposure assessments to advance the use of higher throughput methods to screen and monitor environmental media for multiple chemical exposures.
- (+\$160.0 / -12.6 FTE) This net change includes: a) reductions to research for improving understanding of implications of the manufacture and use of nanomaterials in consumer products; b) increased support for developing a lifecycle modeling framework for evaluating the impact of exposures to chemicals – an effort which responds directly to a National Academy of Science (NAS) report, *A Framework to Guide Selection of Chemical Alternatives*; c) increased support for advancement of higher throughput approaches for evaluating novel nanomaterials; and d) increased emphasis on short-term targeted high-priority partner-initiated studies.

Statutory Authority:

CAA, Sec. 103, 104 & 154; CCA, 40 U.S.C. 11318; CERCLA; Children's Health Act; 21st Century Nanotechnology Research and Development Act, 15 U.S.C. 750; CWA, Sec. 101 - 121; Economy Act, 31 U.S.C 1535; ERDDAA, 42 U.S.C. 4361-4370; FFDCA, 21 U.S.C. Sec. 346; FIFRA; FQPA; Intergovernmental Cooperation Act, 31 U.S.C. 6502; National Environmental Policy Act of 1969, Section 102; PPA, 42 U.S.C. 13103; RCRA; SDWA, 42 U.S.C.; TSCA, Section 10, 15, 26 U.S.C.

Human Health Risk Assessment

Program Area: Research: Chemical Safety and Sustainability

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Address Climate Change

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Science & Technology</i>	<i>\$37,813.5</i>	<i>\$39,423.0</i>	<i>\$39,277.0</i>	<i>(\$146.0)</i>
Hazardous Substance Superfund	\$3,113.9	\$2,843.0	\$2,831.0	(\$12.0)
Total Budget Authority / Obligations	\$40,927.4	\$42,266.0	\$42,108.0	(\$158.0)
Total Workyears	176.8	183.5	178.9	-4.6

Program Project Description:

The EPA's Human Health Risk Assessment (HHRA) research program meets EPA's needs to characterize the potential human health and environmental impacts of exposures to individual chemicals and mixtures by synthesizing scientific information and producing the methods, models and data that provide the scientific foundation for risk assessments³⁴. These assessments span the range from state-of-the-science human health assessments which are independently peer-reviewed, to screening level values that help to focus monitoring and future evaluations. They provide a sound scientific basis for the myriad of daily agency risk management decisions (*e.g.*, regulations, site-specific cleanups). HHRA's assessment work supports EPA's efforts to take action on toxics and chemical safety in communities by providing a sound scientific understanding of the possible implications of environmental exposure and by providing tools that help the agency predict and reduce risk. The HHRA research program is comprised of:

- ***Integrated Risk Information System (IRIS)***: Prepares health-hazard and dose-response assessments on environmental pollutants of major relevance to the EPA's regulatory mandates. IRIS provides qualitative and quantitative assessments of both cancer and non-cancer risks developed with many opportunities for public involvement and rigorous peer review by the Chemical Assessment Advisory Committee (CAAC) of the agency's Science Advisory Board (SAB). These assessments provide the scientific foundation for the agency's risk assessment and risk management decisions.³⁵ The IRIS database has hazard identifications and dose-response evaluations on several hundred chemicals. These values will help EPA programs and communities assess cumulative risk and mixtures of related chemicals to better characterize potential "real-world" exposures and risks for specific communities.
- ***Integrated Science Assessments (ISAs)***: Provides periodic review of the scientific evidence supporting the National Ambient Air Quality Standards (NAAQS) for six criteria air pollutants (particulate matter, ozone, lead, sulfur oxides, nitrogen oxides, and carbon monoxide). ISAs provide a concise evaluation and synthesis of science necessary to inform decision-making and

³⁴ <http://www.epa.gov/nceawww1/hhra/index.htm>

³⁵ <http://arasp.americanchemistry.com/Resources/White-Paper-Early-Scientific-Peer-Consultation-and-Stakeholder-Engagement-in-EPAs-IRIS-Assessment.pdf>

inform the benefit-cost analyses that support the regulations designed to allow states and local areas to meet the NAAQS.³⁶ ISAs undergo rigorous external peer review by the Clean Air Scientific Advisory Committee (CASAC).³⁷ HHRA also develops Multi-pollutant Science Documents (MSDs) as the first step toward assessing mixtures of air pollutants. The MSDs reflect the fact that people and environments are not exposed to pollutants in isolation and serve as a companion to and reference for the individual pollutant ISAs. Lessons learned from these endeavors will help support characterization of sustainable approaches to air pollution and climate change.

- ***Community and Site-specific Risk:*** Develops Provisional Peer Reviewed Toxicity Values (PPRTVs) and exposure assessment tools supporting EPA's clean-up decisions at contaminated Superfund and hazardous waste sites. EPA scientists also provide technical support and tools to enhance the agency's ability to make risk-based decisions on a case-specific basis, thereby reducing risks for sensitive and susceptible populations in specific communities. The cumulative risk assessment (CRA) methods are being extended to explicitly incorporate general ecological risk assessment endpoints (GEAE) to characterize ecological risk, adverse outcome pathways across (AOP) species, and to begin to consider human wellness indices.
- ***Research to Advance Analyses and Applications:*** Provides leadership in developing and applying analytic innovations to inform IRIS, ISA, PPRTV, and other assessment activities. This ensures the translation and targeting of new data, models, and methods to increase the accuracy, efficiency, and effectiveness of a range of EPA risk assessments. Such characterization also informs the Chemical Safety for Sustainability (CSS) research program's development and evaluation of its tools and knowledge bases. HHRA research is also determining and characterizing how to apply high throughput and other new data streams to support risk screening and assessments. The HHRA program also develops, evaluates, and/or applies new benchmark dose and other dose-response methods, new approaches to identify and systematically review relevant research for hazard evaluation, and risk assessment training materials.

Recent accomplishments include:

- The IRIS program completed the assessment of cancer and non-cancer hazard and dose-response for Libby Amphibole Asbestos. This assessment is being used now to support actions by EPA Region 8, EPA's Office of Solid Waste and Emergency Response, and state risk assessors to address the public health emergency in Libby, Montana.
- Incorporated additional opportunities for stakeholder and public engagement at various stages of the IRIS process in response to the National Research Council's (NRC's) recommendations related to improving the development of IRIS assessments. The IRIS program also formed the Chemical Assessment Advisory Committee³⁸ (CAAC) to improve the review of IRIS

³⁶ <http://epa.gov/ttn/naqs/standards/pb/data/20110331pbirpdraftcasac.pdf>

³⁷ <http://yosemite.epa.gov/sab/sabproduct.nsf/WebReportsbyYearCASAC!OpenView&Start=1&Count=800&Collapse=1#1>

³⁸ <http://yosemite.epa.gov/sab/sabpeople.nsf/WebCommitteesSubcommittees/Chemical%20Assessment%20Advisory%20Committee>

assessments, refining the focus of HHRA research to address critical challenges in risk analysis³⁹.

- Implemented new bi-monthly public scientific meetings with stakeholders to discuss preliminary materials for IRIS assessments under development, including ethyl tert-butyl ether (ETBE); tert-butyl alcohol (tert-butanol); hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX); hexabromocyclododecane (HBCD); diethylphthalate (DEP); hexavalent chromium; and inorganic arsenic.
- Sent draft assessments for trimethylbenzenes and ammonia to the SAB-CAAC for external peer review, and panel meetings were held in summer 2014. Draft assessments for benzo[a]pyrene and ethylene oxide were provided to the SAB for peer review.
- Released the first problem formulation materials for naphthalene and ethylbenzene which were discussed at a September 2014 bimonthly public science meeting⁴⁰.
- Provided technical support on reconsideration of the NAAQS for ozone⁴¹ and lead⁴² based on the 2013 ISA documents and began developing an MSD for the effects of criteria air pollutants on the radiation balance of the atmosphere;
- Convened a kick-off meeting to initiate evaluation of ecological effects and development of the Integrated Science Assessment (ISA) for the NO_x/SO_x NAAQS;
- Released EPA Expo-Box, a web-based compendium of tools providing easy access to data bases, models, guidance documents, and other resources used by exposure assessors;
- Published new approaches and methods for evaluating cumulative risk.
- Convened scientific workshops on critical issues and challenges in risk assessment including: cost-benefit analysis for noncancer endpoints, factors influencing oral uptake of ingested chromium, and the relevance of mouse lung tumors for specific volatile organic chemicals.

FY 2016 Activities and Performance Plan:

The EPA's HHRA program will continue to engage important stakeholders and the scientific community to identify and advance solutions to critical challenges and develop health hazard assessments for the highest priority chemicals. In FY 2016, the program will:

- Make continued improvements to the productivity and scientific process of the IRIS Program⁴³ in response to the recommendations made in reports by the National Academy of Sciences' (NAS) NRC.^{44,45} The NRC has acknowledged EPA's substantial successes in this area in its

³⁹ <http://www.epa.gov/ncea/iris/process.htm>

⁴⁰ http://www.epa.gov/iris/publicmeeting/iris_bimonthly-sep2014/index.htm

⁴¹ <http://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=247492>

⁴² <http://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=255721>

⁴³ <http://www.epa.gov/iris/process.htm>

⁴⁴ <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=13142>

⁴⁵ http://www.nap.edu/catalog.php?record_id=18764

most recent report “*Review of the Integrated Risk Information System (IRIS) Process*”, for example, by advancing the state of the science for systematic evidence review. The HHRA program will address new recommendations as it builds on progress NAS concluded has already been made.

- Complete draft assessments for agency, interagency, and external peer review and posting them on the IRIS website (<http://www.epa.gov/iris/index.html>), making state-of-the-science, IRIS documents accessible and useful to other government agencies, industry, and the public.
- Convene scientific workshops on critical issues and challenges in risk assessment.
- Create state-of-the-science methods for continuous evaluation of assessments of new scientific information on criteria air pollutants.
- Issue final documents of the ISA for health effects of sulfur oxides (SO_x) and of the ISA for ecological criteria of NO_x/SO_x.
- Issue a draft Multi-pollutant Science Document (MSD) for the effects of criteria pollutants on climate forcing.
- Develop PPRTV and advance exposure assessment tools to support EPA’s clean-up decisions at contaminated Superfund and hazardous waste sites.
- Develop rapid health hazard assessments to support agency responses to emergency events such as Hurricane Katrina and the Deepwater Horizon oil spill, if needed. Responding to these types of events is a key part of the EPA’s mission to protect human health and the environment and is consistent with peer review advice.⁴⁶
- Advance Cumulative Risk Assessment methods to incorporate ecological endpoints, incorporating new mechanistic data such as adverse outcome pathways (AOP) across species, and factoring in human wellness indices to better support “place-based” assessments, addressing community concerns, and characterize sustainability.
- Publish manuscripts and case studies on methods to combine chemical and non-chemical stressors in risk assessment.
- Improve the Health and Environmental Research Online (HERO) database which lends transparency to the assessment development process by allowing access to the data used for scientific decisions. This benefits not only the EPA, but also state and local governments, environmental and public health organizations, industry, communities, and individual citizens.
- Conduct risk assessment training at the local, national, and international levels to increase capabilities and capacities for conduct of consistent science-based risk assessments

⁴⁶ <http://www.epa.gov/osp/bosc/pdf/hhra1007rpt.pdf>

Performance Targets:

Measure	(RA1) Percentage of planned research products completed on time by the Human Health Risk Assessment research program.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				100	100	100	100	100	Percent
Actual				100	88	80			

Measure	(RA2) Percentage of planned research outputs delivered to clients and partners for use in informing human health decisions.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				100	100	100	100	100	Percent
Actual				38	100	67			

Measure	(RA7) Annual milestone progress score for completing draft IRIS health assessments.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				50	50	40	40	40	Score
Actual				8	17	30			

Measure	(RA8) Annual progress score for finalizing IRIS health assessments.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				20	20	15	15	15	Score
Actual				17	8	0			

Measure	(RA6) Number of regulatory decisions in which decision-makers used HHRA peer-reviewed assessments (IRIS, PPRTVs, exposure assessments and other assessments)								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target					20	20	20	20	Number
Actual					140	100			

The table above reflects HHRA’s annual performance measures. The EPA uses these measures to assess our effectiveness in delivering needed products and outputs to clients (decision-makers, states, and local governments).

To assess research performance and provide strategic direction, two federal advisory Committees reviewed the EPA’s research programs. In their joint review of the HHRA program, the EPA’s Science Advisory Board and Board of Scientific Counselors indicated during their oral summary on July 11, 2012 that “With an extensive portfolio of risk assessment activities, the [HHRA] provides a superb platform for carrying out applied research. An agenda of research should be maintained that builds from this opportunity.”⁴⁷ EPA has established a standing subcommittee under ORD’s Board of Scientific Councilors for portions of the HHRA program to evaluate its performance and provide expert feedback to the agency. In addition, ORD will meet regularly with both the BOSC and SAB over the next several years to seek their input on topics related to research program design, science quality, innovation, relevance and impact, within the context of the agency’s Strategic Plan. The EPA anticipates that the IRIS portion of the HHRA Program will be

⁴⁷ [http://yosemite.epa.gov/sab/sabproduct.nsf/36EBF661CA14106185257A380048FEAE/\\$File/HHRA+Overview_final.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/36EBF661CA14106185257A380048FEAE/$File/HHRA+Overview_final.pdf)

reviewed by the Chemical Assessment Advisory Committee of the SAB in FY 2016 and that the ISA portion of the HHRA program will continue full engagement with the Clean Air Scientific Advisory Committee.

The EPA collaborates with several science agencies and the research community to assess our research performance. For instance, the EPA is partnering with the National Institutes of Health, the National Science Foundation, the DOE, the USDA, and the White House's Office of Science and Technology Policy to participate in the interagency group that reviews IRIS assessments. The EPA supports the interagency Science and Technology in America's Reinvestment—Measuring the Effect of Research on Innovation, Competitiveness and Science (STAR METRICS) effort.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$797.0 / -0.2 FTE) This net change reflects an increase of \$732.0 to fixed and other costs for the Agency recalculation of base workforce costs due to adjustments in salary, working capital fund, and benefits, and an increase of \$65.0 and a decrease of 0.2 FTE for essential research program support costs.
- (-\$943.0 / -3.9 FTE) This reduction affects research in human health risk assessment including ISA development, community and site-specific risk assessments, and research to advance analyses and applications.

Statutory Authority:

CAA Amendments, 42 U.S.C. 7403 et seq. - Sections 103, 108, 109, and 112; CERCLA (Superfund, 1980) Section 209(a) of Public Law 99-499; CWA Title I, Sec. 101(a)(6) 33 U.S.C. 1254 – Sec 104 (a) and (c) and Sec. 105; ERDDA 33 U.S.C. 1251 – Section 2(a); FIFRA (7 U.S.C. s/s 136 et seq. (1996), as amended), Sec. 3(c)(2)(A); FQPA PL 104-170; SDWA (1996) 42 U.S.C. Section 300j-18; TSCA (Public Law 94-469): 15 U.S.C. s/s 2601 et seq. (1976), Sec. 4(b)(1)(B), Sec. 4(b)(2)(B).

Program Area: Water: Human Health Protection

Drinking Water Programs

Program Area: Water: Human Health Protection

Goal: Protecting America's Waters

Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$95,283.5	\$96,492.0	\$125,018.0	\$28,526.0
<i>Science & Technology</i>	<i>\$3,750.9</i>	<i>\$3,519.0</i>	<i>\$3,766.0</i>	<i>\$247.0</i>
Total Budget Authority / Obligations	\$99,034.4	\$100,011.0	\$128,784.0	\$28,773.0
Total Workyears	521.5	521.6	522.7	1.1

Program Project Description:

This program supports drinking water programs through the Technical Support Center (TSC), which utilizes the latest engineering and scientific data (including treatment technology information) to strengthen the nation's drinking water program. The TSC also:

- Develops and implements regulations to support national occurrence surveys and assists in the assessment of the contaminant occurrence data resulting from those surveys;
- Develops and evaluates monitoring approaches and analytical methods, including assessing data provided by others to demonstrate the effectiveness of new/alternate analytical methods;
- Trains regional and state certification officers, develops guidelines for the drinking water laboratory certification program, and conducts Quality Systems Assessments of Regional Drinking Water Programs;
- Works with the EPA Regional Offices and states to help drinking water utilities better understand their treatment and distribution systems and implement improvements to optimize performance; and
- Provides other technical support to develop and implement National Primary Drinking Water Regulations (NPDWRs). The TSC also provides technical assistance to states, tribes, and drinking water systems in support of the EPA regional and state drinking water programs.⁴⁸

⁴⁸ For additional program information see

<http://www.epa.gov/safewater>

<https://www.cfda.gov/index?s=program&mode=form&tab=step1&id=63cecb6866ee587d2bfafc7b77c3563c&cck=1&au=&ck>

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA's Drinking Water TSC will carry out the following activities:

- Lead the development, revision, evaluation, and approval of chemical and microbiological analytical methods for compliance monitoring and for occurrence data gathering;
- Respond to technical questions regarding the entire range of NPDWRs;
- Implement the EPA's Drinking Water Laboratory Certification Program. This program sets standards and establishes methods for the EPA, state, and privately-owned laboratories that analyze drinking water samples. Through this program, the EPA will conduct three regional program reviews during FY 2016. The EPA visits each Regional Office on a triennial basis and evaluates their oversight of the state laboratories and the state laboratory certification programs within their purview. The EPA will deliver three certification officer training courses [(1) chemistry, 2) microbiology, and 3) cryptosporidium] for state and regional representatives to help ensure the quality of the analytical results;
- Support small drinking water systems' efforts to optimize their treatment technology under the drinking water Area Wide Optimization Program (AWOP). AWOP is a highly successful technical/compliance assistance and training program that enhances the ability of small systems to meet existing and future microbial, disinfectant, and disinfection byproducts standards and also addresses distribution system integrity issues. During FY 2016, the EPA expects to continue to work with at least four Regional Offices and 21 states and tribes to facilitate the transfer of specific skills and build upon other drinking water implementation program efforts to reduce health-based compliance challenges;
- Continue to lead the implementation of the third Unregulated Contaminant Monitoring Rule (UCMR3). UCMR3 was promulgated in 2012 and the EPA initiated monitoring in January 2013. Sampling will continue through December 2015, reporting of results will conclude in mid-2016. The EPA will analyze the data generated from the monitoring through the remainder of FY 2016. Implementation of UCMR3 involves extensive coordination with states and Regional Offices to carry out the agency's monitoring and reporting responsibilities. Key activities for the EPA include oversight of supporting laboratories, troubleshooting and technical assistance, review and validation of data, and management of all aspects of small system monitoring. The EPA is required by Section 1452(o) of the Safe Drinking Water Act (SDWA), as amended, to annually set aside \$2 million of Drinking Water State Revolving Funds to pay the costs of small system monitoring and sample analysis for contaminants for each cycle of the UCMR; and
- Consider and address public comments, and make necessary changes to the fourth Unregulated Contaminant Monitoring Rule (UCMR4) as appropriate. The UCMR4 will be proposed in FY 2015 and will address the collection of occurrence and exposure data for up to 30 unregulated, suspected drinking water contaminants. The data collected through the five-year UCMR cycles are used in the analysis and review of contaminant occurrence and public exposure to support the agency's determination of whether to establish a health-

based standard to protect public health. The final rule will be promulgated in FY 2016 and monitoring for UCMR4 will occur from 2018-2020.

Performance Targets:

Measure	(aa) Percent of population served by CWSs that will receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	90	90	91	91	92	92	92	92	Population
Actual	92.1	92	93.2	94.7	92	93			

Measure	(apm) Percent of community water systems that meets all applicable health-based standards through approaches including effective treatment and source water protection.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	90	90	90	90	90	90	90	90	Systems
Actual	89.1	89.6	90.7	91	91	91			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$189.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$41.0) This program change reflects an increase in costs associated with the Technical Support Center’s triennial information security certification.
- (+\$17.0) This program change reflects an increase to support training and technical assistance to tribes on drinking water treatment optimization in support of the agency’s priority goal of improving the technical, managerial, and financial capabilities of small systems.

Statutory Authority:

SDWA, 42 U.S.C. §300f–300j–9 as added by Public Law 93–523 and the amendments made by subsequent enactments.

Program Area: Climate Protection

Water Quality Research and Support Grants

Program Area: Congressional Priorities

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Science & Technology</i>	<i>\$2,450.1</i>	<i>\$4,100.0</i>	<i>\$0.0</i>	<i>(\$4,100.0)</i>
Environmental Program & Management	\$12,700.0	\$12,700.0	\$0.0	(\$12,700.0)
Total Budget Authority / Obligations	\$15,150.1	\$16,800.0	\$0.0	(\$16,800.0)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

In FY 2015, Congress appropriated \$4.1 million for a Science and Technology: National Priority competitive grant program to fund high-priority water quality and availability research. The EPA was instructed to award grants on a competitive basis, independent of the STAR program, and give priority to not-for-profit organizations that: conduct activities that are national in scope; can provide a twenty-five percent match, including in-kind contributions; and often partner with the agency.

FY 2016 Activities and Performance Plan:

The EPA is not requesting funds to support this grant program in FY 2016.

Performance Targets:

There are no performance targets for this program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$4,100.0) The EPA is not requesting funds to support this grant in FY 2016.

Statutory Authority:

CAA 42 U.S.C. 7401 et seq. Title 1, Part A – Sec. 103 (a) and (d) and Sec. 104 (c); CAA 42 U.S.C. 7402(b) Section 102; CAA 42 U.S.C. 7403(b)(2) Section 103(b)(2); Clinger Cohen Act, 40 U.S.C. 11318; CERCLA (Superfund, 1980) Section 209(a) of Public Law 99-499; Children's Health Act; CWA, Sec. 101 - 121; CWPPRA; CZARA; CZMA 16 U.S.C. 1451 - Section 302; Economy Act, 31 U.S.C. 1535; EISA, Title II Subtitle B; ERDDA, 33 U.S.C. 1251 – Section 2(a); ESA, 16 U.S.C. 1531 - Section 2; FFDCA, 21 U.S.C. Sec. 346; FIFRA (7 U.S.C. s/s 136 et seq. (1996), as amended), Sec. 3(c)(2)(A); FQPA PL 104-170; Intergovernmental Cooperation Act, 31 U.S.C. 6502; MPRSA Sec. 203, 33 U.S.C. 1443; NAWCA; NCPA; National Environmental Education Act, 20 U.S.C. 5503(b)(3) and (b)(11); NEPA of 1969, Section 102; NISA; ODBA Title II; PPA,

42 U.S.C. 13103; RCRA; SDWA (1996) 42 U.S.C. Section 300j-18; SDWA Part E, Sec. 1442 (a)(1); TSCA, Section 10, 15, 26, U.S.C. 2609; USGCRA 15 U.S.C. 2921; WRDA; WRRRA; and WWWQA.

**Environmental Protection Agency
2016 Annual Performance Plan and Congressional Justification**

Table of Contents - Environmental Programs and Management

Resource Summary Table	199
Program Area: Clean Air and Climate.....	204
Clean Air Allowance Trading Programs.....	205
Climate Protection Program.....	210
Federal Stationary Source Regulations.....	220
Federal Support for Air Quality Management	225
Stratospheric Ozone: Domestic Programs	236
Stratospheric Ozone: Multilateral Fund.....	240
Program Area: Brownfields.....	243
Brownfields.....	244
Program Area: Compliance	250
Compliance Monitoring	251
Program Area: Enforcement	258
Civil Enforcement.....	259
Criminal Enforcement.....	266
Environmental Justice.....	270
NEPA Implementation.....	276
Program Area: Geographic Programs.....	279
Great Lakes Restoration.....	280
Geographic Program: Chesapeake Bay	288
Geographic Program: San Francisco Bay	293
Geographic Program: Puget Sound.....	296
Geographic Program: Long Island Sound.....	302
Geographic Program: Gulf of Mexico	306
Geographic Program: South Florida	309
Geographic Program: Lake Champlain	313
Geographic Program: Other.....	318
Program Area: Homeland Security	325
Homeland Security: Communication and Information.....	326
Homeland Security: Critical Infrastructure Protection	329

Homeland Security: Protection of EPA Personnel and Infrastructure.....	331
Program Area: Information Exchange / Outreach.....	333
Children and Other Sensitive Populations: Agency Coordination	334
Environmental Education.....	338
Executive Management and Operations	341
Exchange Network.....	345
Small Business Ombudsman.....	350
Small Minority Business Assistance.....	353
State and Local Prevention and Preparedness	356
TRI / Right to Know	362
Tribal - Capacity Building	365
Program Area: International Programs.....	369
US Mexico Border	370
International Sources of Pollution	373
Trade and Governance	377
Program Area: IT / Data Management / Security	381
Information Security	382
IT / Data Management	385
Program Area: Legal / Science / Regulatory / Economic Review	391
Administrative Law	392
Alternative Dispute Resolution.....	394
Civil Rights / Title VI Compliance.....	396
Legal Advice: Environmental Program	401
Legal Advice: Support Program	407
Regional Science and Technology.....	410
Integrated Environmental Strategies.....	413
Regulatory/Economic-Management and Analysis	418
Science Advisory Board	422
Program Area: Operations and Administration.....	424
Facilities Infrastructure and Operations.....	425
Central Planning, Budgeting, and Finance	428
Acquisition Management	431
Financial Assistance Grants / IAG Management.....	434
Human Resources Management	437

Program Area: Pesticides Licensing	440
Pesticides: Protect Human Health from Pesticide Risk	441
Pesticides: Protect the Environment from Pesticide Risk.....	448
Pesticides: Realize the Value of Pesticide Availability	457
Science Policy and Biotechnology.....	462
Program Area: Resource Conservation and Recovery Act (RCRA)	464
RCRA: Waste Management.....	465
RCRA: Corrective Action.....	471
RCRA: Waste Minimization & Recycling	476
Program Area: Toxics Risk Review and Prevention	481
Endocrine Disruptors	482
Toxic Substances: Chemical Risk Review and Reduction	485
Pollution Prevention Program.....	491
Toxic Substances: Lead Risk Reduction Program.....	497
Program Area: Underground Storage Tanks (LUST / UST)	501
LUST / UST	502
Program Area: Water: Ecosystems.....	506
National Estuary Program / Coastal Waterways.....	507
Wetlands	510
Program Area: Water: Human Health Protection	515
Beach / Fish Programs	516
Drinking Water Programs.....	518
Program Area: Water Quality Protection.....	530
Marine Pollution	531
Surface Water Protection	536
Water Infrastructure Finance and Innovation	552
Program Area: Indoor Air and Radiation.....	554
Indoor Air: Radon Program	555
Reduce Risks from Indoor Air.....	557
Radiation: Protection	560
Radiation: Response Preparedness	562
Program Area: Climate Protection	564
Water Quality Research and Support Grants	565

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

**APPROPRIATION: Environmental Program & Management
Resource Summary Table**

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management				
Budget Authority	\$2,566,449.2	\$2,613,679.0	\$2,841,718.0	\$228,039.0
Total Workyears	9,614.5	9,663.5	9,760.7	97.2

Bill Language: Environmental Programs and Managements

For environmental programs and management, including necessary expenses, not otherwise provided for, for personnel and related costs and travel expenses; hire of passenger motor vehicles; hire, maintenance, and operation of aircraft; purchase of reprints; library memberships in societies or associations which issue publications to members only or at a price to members lower than to subscribers who are not members; administrative costs of the brownfields program under the Small Business Liability Relief and Brownfields Revitalization Act of 2002; and not to exceed \$9,000 for official reception and representation expenses, \$2,841,718,000, to remain available until September 30, 2017: Provided, That of the amounts made available under this heading, at least \$1,200,000 shall be available for expenses necessary to establish and deploy a Digital Service team: Provided further, That of the amounts made available under this heading, at least \$5,450,000 shall be available to support the Agency's implementation of a uniform procurement instrument identifier as described in 48 C.F.R. subpart 4.16, to include changes in business processes, workforce, or information technology. (Department of the Interior, Environment, and Related Agencies Appropriations Act, 2015.)

Program Projects in EPM

(Dollars in Thousands)

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Clean Air and Climate				
Clean Air Allowance Trading Programs	\$18,756.3	\$18,231.0	\$18,378.0	\$147.0
Climate Protection Program	\$90,702.3	\$95,436.0	\$109,625.0	\$14,189.0
Federal Stationary Source Regulations	\$26,777.0	\$25,000.0	\$37,545.0	\$12,545.0
Federal Support for Air Quality Management	\$121,018.7	\$120,572.0	\$157,339.0	\$36,767.0
Stratospheric Ozone: Domestic Programs	\$5,121.6	\$4,941.0	\$4,963.0	\$22.0
Stratospheric Ozone: Multilateral Fund	\$8,901.0	\$8,928.0	\$9,057.0	\$129.0
Subtotal, Clean Air and Climate	\$271,276.9	\$273,108.0	\$336,907.0	\$63,799.0

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Indoor Air and Radiation				
Indoor Air: Radon Program	\$1,790.0	\$3,055.0	\$3,386.0	\$331.0
Radiation: Protection	\$8,945.8	\$8,576.0	\$9,517.0	\$941.0
Radiation: Response Preparedness	\$2,844.2	\$2,454.0	\$3,317.0	\$863.0
Reduce Risks from Indoor Air	\$12,437.0	\$13,552.0	\$14,057.0	\$505.0
Subtotal, Indoor Air and Radiation	\$26,017.0	\$27,637.0	\$30,277.0	\$2,640.0
Brownfields				
Brownfields	\$23,372.2	\$25,593.0	\$29,599.0	\$4,006.0
Compliance				
Compliance Monitoring	\$101,883.5	\$101,665.0	\$122,424.0	\$20,759.0
Enforcement				
Civil Enforcement	\$173,835.8	\$170,854.0	\$185,756.0	\$14,902.0
Criminal Enforcement	\$48,136.0	\$46,745.0	\$51,917.0	\$5,172.0
Environmental Justice	\$6,636.8	\$6,737.0	\$13,971.0	\$7,234.0
NEPA Implementation	\$15,869.1	\$16,301.0	\$17,612.0	\$1,311.0
Subtotal, Enforcement	\$244,477.7	\$240,637.0	\$269,256.0	\$28,619.0
Geographic Programs				
Geographic Program: Chesapeake Bay	\$61,335.5	\$73,000.0	\$70,000.0	(\$3,000.0)
Geographic Program: Gulf of Mexico	\$5,424.2	\$4,482.0	\$3,908.0	(\$574.0)
Geographic Program: Lake Champlain	\$1,399.0	\$4,399.0	\$1,399.0	(\$3,000.0)
Geographic Program: Long Island Sound	\$3,944.9	\$3,940.0	\$2,893.0	(\$1,047.0)
Geographic Program: Other				
Lake Pontchartrain	\$948.0	\$948.0	\$948.0	\$0.0
S.New England Estuary (SNEE)	\$2,000.0	\$5,000.0	\$5,000.0	\$0.0
Geographic Program: Other (other activities)	\$1,426.7	\$1,445.0	\$939.0	(\$506.0)
Subtotal, Geographic Program: Other	\$4,374.7	\$7,393.0	\$6,887.0	(\$506.0)
Great Lakes Restoration	\$288,870.0	\$300,000.0	\$250,000.0	(\$50,000.0)
Geographic Program: South Florida	\$2,343.5	\$1,704.0	\$1,340.0	(\$364.0)
Geographic Program: San Francisco Bay	\$5,312.4	\$4,819.0	\$3,988.0	(\$831.0)
Geographic Program: Puget Sound	\$25,009.8	\$28,000.0	\$29,998.0	\$1,998.0
Subtotal, Geographic Programs	\$398,014.0	\$427,737.0	\$370,413.0	(\$57,324.0)
Homeland Security				
Homeland Security: Communication and	\$4,073.4	\$3,771.0	\$4,142.0	\$371.0

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Information				
Homeland Security: Critical Infrastructure Protection	\$648.0	\$964.0	\$1,014.0	\$50.0
Homeland Security: Protection of EPA Personnel and Infrastructure	\$4,805.0	\$5,460.0	\$5,118.0	(\$342.0)
Subtotal, Homeland Security	\$9,526.4	\$10,195.0	\$10,274.0	\$79.0
Information Exchange / Outreach				
State and Local Prevention and Preparedness	\$13,802.7	\$15,666.0	\$27,783.0	\$12,117.0
TRI / Right to Know	\$13,765.0	\$14,616.0	\$14,691.0	\$75.0
Tribal - Capacity Building	\$13,749.5	\$14,063.0	\$15,600.0	\$1,537.0
Executive Management and Operations	\$47,471.0	\$46,276.0	\$48,972.0	\$2,696.0
Environmental Education	\$7,520.3	\$8,702.0	\$10,969.0	\$2,267.0
Exchange Network	\$19,602.1	\$16,995.0	\$25,361.0	\$8,366.0
Small Minority Business Assistance	\$1,766.8	\$1,641.0	\$1,971.0	\$330.0
Small Business Ombudsman	\$1,604.0	\$2,031.0	\$2,296.0	\$265.0
Children and Other Sensitive Populations: Agency Coordination	\$5,888.0	\$6,548.0	\$8,035.0	\$1,487.0
Subtotal, Information Exchange / Outreach	\$125,169.4	\$126,538.0	\$155,678.0	\$29,140.0
International Programs				
US Mexico Border	\$3,607.7	\$2,978.0	\$3,307.0	\$329.0
International Sources of Pollution	\$6,673.7	\$6,938.0	\$7,245.0	\$307.0
Trade and Governance	\$5,761.3	\$5,484.0	\$6,009.0	\$525.0
Subtotal, International Programs	\$16,042.7	\$15,400.0	\$16,561.0	\$1,161.0
IT / Data Management / Security				
Information Security	\$5,861.0	\$6,309.0	\$6,666.0	\$357.0
IT / Data Management	\$90,118.6	\$84,227.0	\$96,395.0	\$12,168.0
Subtotal, IT / Data Management / Security	\$95,979.6	\$90,536.0	\$103,061.0	\$12,525.0
Legal / Science / Regulatory / Economic Review				
Integrated Environmental Strategies	\$14,012.7	\$12,724.0	\$21,937.0	\$9,213.0
Administrative Law	\$4,321.0	\$5,120.0	\$5,039.0	(\$81.0)
Alternative Dispute Resolution	\$1,262.4	\$1,397.0	\$1,452.0	\$55.0
Civil Rights / Title VI Compliance	\$9,315.3	\$11,070.0	\$11,793.0	\$723.0
Legal Advice: Environmental Program	\$42,816.4	\$42,027.0	\$52,411.0	\$10,384.0
Legal Advice: Support Program	\$14,231.3	\$16,907.0	\$18,662.0	\$1,755.0
Regional Science and Technology	\$2,338.2	\$2,176.0	\$2,941.0	\$765.0

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Science Advisory Board	\$4,685.1	\$5,110.0	\$6,072.0	\$962.0
Regulatory/Economic-Management and Analysis	\$14,408.3	\$14,883.0	\$18,479.0	\$3,596.0
Subtotal, Legal / Science / Regulatory / Economic Review	\$107,390.7	\$111,414.0	\$138,786.0	\$27,372.0
Operations and Administration				
Central Planning, Budgeting, and Finance	\$73,721.3	\$72,851.0	\$76,057.0	\$3,206.0
Facilities Infrastructure and Operations	\$305,366.3	\$310,399.0	\$312,180.0	\$1,781.0
Acquisition Management	\$34,537.6	\$30,761.0	\$37,974.0	\$7,213.0
Human Resources Management	\$39,052.3	\$43,843.0	\$51,344.0	\$7,501.0
Financial Assistance Grants / IAG Management	\$23,371.7	\$24,897.0	\$27,847.0	\$2,950.0
Subtotal, Operations and Administration	\$476,049.2	\$482,751.0	\$505,402.0	\$22,651.0
Pesticides Licensing				
Science Policy and Biotechnology	\$1,532.7	\$1,400.0	\$1,532.0	\$132.0
Pesticides: Protect Human Health from Pesticide Risk	\$50,633.7	\$55,698.0	\$60,019.0	\$4,321.0
Pesticides: Protect the Environment from Pesticide Risk	\$36,085.1	\$35,470.0	\$39,805.0	\$4,335.0
Pesticides: Realize the Value of Pesticide Availability	\$10,175.5	\$9,795.0	\$10,409.0	\$614.0
Subtotal, Pesticides Licensing	\$98,427.0	\$102,363.0	\$111,765.0	\$9,402.0
Resource Conservation and Recovery Act (RCRA)				
RCRA: Corrective Action	\$36,578.7	\$36,438.0	\$37,048.0	\$610.0
RCRA: Waste Management	\$58,104.9	\$59,958.0	\$63,413.0	\$3,455.0
RCRA: Waste Minimization & Recycling	\$9,213.5	\$8,481.0	\$10,781.0	\$2,300.0
Subtotal, Resource Conservation and Recovery Act (RCRA)	\$103,897.1	\$104,877.0	\$111,242.0	\$6,365.0
Toxics Risk Review and Prevention				
Endocrine Disruptors	\$5,638.5	\$7,553.0	\$4,259.0	(\$3,294.0)
Pollution Prevention Program	\$15,056.4	\$13,114.0	\$13,416.0	\$302.0
Toxic Substances: Chemical Risk Management	\$209.2	\$0.0	\$0.0	\$0.0
Toxic Substances: Chemical Risk Review and Reduction	\$56,133.9	\$58,135.0	\$56,304.0	(\$1,831.0)
Toxic Substances: Lead Risk Reduction Program	\$14,648.9	\$13,719.0	\$13,726.0	\$7.0
Subtotal, Toxics Risk Review and Prevention	\$91,686.9	\$92,521.0	\$87,705.0	(\$4,816.0)

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Underground Storage Tanks (LUST / UST)				
LUST / UST	\$11,979.2	\$11,295.0	\$11,657.0	\$362.0
Water: Ecosystems				
National Estuary Program / Coastal Waterways	\$24,385.2	\$26,723.0	\$27,310.0	\$587.0
Wetlands	\$20,629.1	\$21,065.0	\$23,334.0	\$2,269.0
Subtotal, Water: Ecosystems	\$45,014.3	\$47,788.0	\$50,644.0	\$2,856.0
Water: Human Health Protection				
Beach / Fish Programs	\$1,505.4	\$2,015.0	\$750.0	(\$1,265.0)
Drinking Water Programs	\$95,283.5	\$96,492.0	\$125,018.0	\$28,526.0
Subtotal, Water: Human Health Protection	\$96,788.9	\$98,507.0	\$125,768.0	\$27,261.0
Water Quality Protection				
Marine Pollution	\$11,877.3	\$10,628.0	\$10,481.0	(\$147.0)
Surface Water Protection	\$198,879.2	\$199,789.0	\$238,818.0	\$39,029.0
Water Infrastructure Finance and Innovation	\$0.0	\$0.0	\$5,000.0	\$5,000.0
Subtotal, Water Quality Protection	\$210,756.5	\$210,417.0	\$254,299.0	\$43,882.0
Congressional Priorities				
Water Quality Research and Support Grants	\$12,700.0	\$12,700.0	\$0.0	(\$12,700.0)
Subtotal, Water Quality Research and Support Grants	\$12,700.0	\$12,700.0	\$0.0	(\$12,700.0)
TOTAL, EPA	\$2,566,449.2	\$2,613,679.0	\$2,841,718.0	\$228,039.0

Program Area: Clean Air and Climate

Clean Air Allowance Trading Programs

Program Area: Clean Air and Climate

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$18,756.3</i>	<i>\$18,231.0</i>	<i>\$18,378.0</i>	<i>\$147.0</i>
Science & Technology	\$8,220.0	\$8,298.0	\$7,808.0	(\$490.0)
Total Budget Authority / Obligations	\$26,976.3	\$26,529.0	\$26,186.0	(\$343.0)
Total Workyears	77.1	72.8	71.4	-1.4

Program Project Description:

The Acid Rain Program, established under Title IV of the 1990 Clean Air Act Amendments (CAAA),¹ requires major reductions in sulfur dioxide (SO₂) and nitrogen oxides (NO_x) emissions from the U.S. electric power generation industry. The program continues to be recognized as a model for flexible and effective air pollution regulation both in this country and abroad. The SO₂ program uses a market-based approach with tradable units called “allowances” (one allowance authorizes the emission of one ton of SO₂ in a given or later year). The authorizing legislation sets a permanent cap on the total amount of SO₂ that may be emitted annually by affected electric generating units (EGUs) in the contiguous United States. The program was phased in, with the final SO₂ cap beginning in 2010 set at 8.95 million tons, a level approximately one-half of the amount that these sources emitted in 1980.

Reducing emissions of SO₂ and NO_x continues to be an important component of the EPA's strategy for improving air quality. SO₂ and NO_x are the key pollutants in the formation of acid deposition (or “acid rain”), which contributes to acidification of lakes and streams and impairs their ability to support fish and other aquatic life. The EPA's health studies and ecological assessments, analyses by the Interagency National Acid Precipitation Assessment Program (NAPAP),² and data from long-term monitoring networks all indicate that further reductions in SO₂ and NO_x emissions are necessary to allow sensitive forests and aquatic ecosystems to recover from acidification.

SO₂ also is a precursor for fine particulate matter (PM_{2.5}) formation while NO_x is a precursor for both PM_{2.5} and ground-level ozone formation. Researchers have associated PM_{2.5} and ozone exposure with adverse health effects in numerous toxicological, clinical, and epidemiological studies.^{3,4} Lowering exposure to PM_{2.5} and ozone therefore contributes to significant human

¹ Clean Air Act Amendments of 1990, Pub. L. No. 101-549, sec. 401, §§ 401-416, 104 Stat. 2399, 2584-2631 (codified at 42 U.S.C. §§ 7651-7651o) (Acid Deposition Control).

² *National Acid Precipitation Assessment Program Report to Congress 2011: An Integrated Assessment*. 2011. <http://ny.water.usgs.gov>.

³ U.S. Environmental Protection Agency (U.S. EPA). 2009. Integrated Science Assessment for Particulate Matter (Final Report). EPA-600-R-08-139F. National Center for Environmental Assessment – RTP Division. December. Available on the Internet at <<http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=216546>>. Also, U.S. EPA. Provisional Assessment of recent Studies

health benefits including avoided mortality and morbidity. In addition, reducing SO₂ and NO_x emissions also results in welfare improvements, including surface water quality benefits through lower deposition of nutrients, increased visibility, and reduced climate impacts.^{3,5}

The program measures, quality assures, and tracks SO₂, NO_x, and, pursuant to Section 821 of the 1990 CAAA,⁶ carbon dioxide (CO₂) emissions from over 3,650 affected EGUs. In FY 2016, the program is also projected to measure, quality assure, and track CO₂ emissions under the carbon pollution standards for new, modified, and reconstructed electric utility generating units proposed pursuant to CAA Section 111(b).⁷ The implementing regulations require that highly accurate continuous emissions monitoring systems (CEMS), equivalent direct measurement, or approved alternate methods be used for measuring and electronic reporting of source emissions. The program conducts electronic and field audits and certifies and periodically recertifies emission monitors. Allowance transfers for SO₂ and NO_x are recorded in electronic tracking systems and the allowances held are reconciled against the emissions reported to determine compliance for every affected facility. The Acid Rain Program has maintained near-perfect (e.g., over 99%) compliance every year.

The EPA's Acid Rain Program allows the owners and operators of affected sources to select among different methods of compliance so the required emission reductions are achieved at the lowest cost (both to industry and government). To achieve this goal, the program employs results-oriented market-based and traditional approaches for controlling emissions, providing flexibility in the methods available to achieve the required performance standards and emission reductions. As one example of the program's flexible approach, owners and operators can purchase allowances, install scrubbers or switch the coal they are using to reduce SO₂ emissions at affected units. For additional information on the Acid Rain Program, please visit <http://www.epa.gov/airmarkets>.

In 2013, total SO₂ emissions from EGUs subject to the Acid Rain Program were 3.2 million tons, or approximately one-third of the statutory nationwide emissions cap. Total NO_x emissions were 1.7 million tons in 2013, reflecting a reduction of over 6 million tons from projected 2000 NO_x levels absent the Acid Rain Program, triple the program's targeted reduction of 2 million tons. Despite these achievements, recent assessments show that the program's environmental objective to improve ecosystems in acid-sensitive regions of the United States cannot be attained without further reductions in SO₂ and NO_x, the key pollutants involved in the formation of acid rain.⁸ These assessments also show that additional reductions in these emissions are needed for many areas to achieve and maintain health-based air quality standards for ozone and PM_{2.5}.

on the Health Effects of Particulate Matter Exposure. U.S. Environmental Protection Agency, Washington, D.C. EPA/600R-12/056, 2012. Available on the Internet at <<http://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=247132>>.

⁴ U.S. Environmental Protection Agency (U.S. EPA). 2013. Integrated Science Assessment for Ozone and Related Photochemical Oxidants. EPA/600/R-10/076F. Research Triangle Park, NC: U.S. EPA. February. Available on the Internet at <http://oaspub.epa.gov/eims/eimscomm.getfile?p_download_id=511347>.

⁵ U.S. Environmental Protection Agency (U.S. EPA). 2008. Integrated Science Assessment for Oxides of Nitrogen and Sulfur – Ecological Criteria National (Final Report). National Center for Environmental Assessment, Research Triangle Park, NC. EPA/600/R-08/139. December. Available on the Internet at <<http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=201485>>.

⁶ Clean Air Act Amendments of 1990, Pub. L. No. 101-549, sec. 821, 104 Stat. 2399, 2699 (reprinted at 42 U.S.C. § 7651k note) (Information Gathering on Greenhouse Gases Contributing to Global Climate Change).

⁷ See <http://www2.epa.gov/carbon-pollution-standards/regulatory-actions>. Also, 79 FR 1429 (January 8, 2014) and 79 FR 34960 (June 18, 2014).

⁸ *National Acid Precipitation Assessment Program Report to Congress 2011: An Integrated Assessment*. op cit.

To help attain the National Ambient Air Quality Standards (NAAQS) for ozone, at the request of the affected states, in 1998 the EPA began administering the Ozone Transport Commission NO_x Budget Program (NBP), a regional cap-and-trade program established by nine states and the District of Columbia for reducing NO_x emissions and transported ozone in the eastern United States. These jurisdictions initiated their own regional NO_x allowance trading program in order to extend the compliance flexibility and control cost-effectiveness achieved under the Title IV SO₂ Acid Rain Program into their state implementation plans (SIPs) for meeting their Title I NAAQS compliance obligations. Subsequently, the EPA issued the NO_x SIP Call and established the NO_x Budget Trading Program (NBTP), which replaced the NBP starting in 2003. The NBTP added 12 new states to the NBP and doubled the number of sources covered. The EPA then issued the Clean Air Interstate Rule (CAIR) under which the NBTP transitioned into the CAIR seasonal NO_x program for control of transported ozone pollution and summer NO_x emissions starting in 2009. (The U.S. Court of Appeals for the D.C. Circuit remanded CAIR to the EPA for replacement, but allowed the rule to be implemented in the interim.⁹)

In July 2011, the EPA issued the Cross-State Air Pollution Rule (CSAPR) to replace CAIR, but the newer rule could not be implemented until a stay imposed by the U.S. Court of Appeals for the D.C. Circuit on December 30, 2011 was lifted on October 23, 2014, and the CSAPR took effect on January 1, 2015. CSAPR requires 28 states to limit their state-wide emissions of SO₂ and/or NO_x in order to reduce or eliminate the states' contributions to fine particulate matter and/or ground-level ozone pollution in other states. The emissions limitations are defined in terms of maximum state-wide "budgets" for emissions of annual SO₂, annual NO_x, and/or ozone-season NO_x from each state's large EGUs.

The National Academy of Sciences¹⁰ has commended the EPA on its Acid Rain Accountability Program, which relies on the Clean Air Status and Trends Network (CASTNET) for monitoring deposition, ambient sulfate and nitrate concentrations, and other air quality indicators. The EPA uses the Temporally Integrated Monitoring of Ecosystems (TIME) and Long-Term Monitoring (LTM) programs for assessing how water bodies and aquatic ecosystems are responding to reductions in sulfur and nitrogen emissions. The Acid Rain Accountability Program issues comprehensive annual reports on compliance and environmental results from implementation of the Acid Rain Program and related programs. These reports not only track progress in reducing SO₂ and NO_x emissions from the affected sources, but also assess the impacts of these reductions on acid deposition, air quality (*e.g.*, ozone levels), surface water acidity, forest health, and other environmental indicators. For more information, please visit <http://www.epa.gov/airmarkets/progress/index.html>.

⁹ North Carolina v. EPA, 550 F.3d 1176, 1178 (D.C. Cir. 2008) (remanding CAIR without vacatur). EPA's CAIR replacement rule, the Cross-State Air Pollution Rule (CSAPR) was stayed and then vacated by the D.C. Circuit Court of Appeals, but the Supreme Court reversed the D.C. Circuit's opinion vacating the rule. EPA v. EME Homer City Generation, L.P., 134 S. Ct. 1584, 1610 (2014).

¹⁰ National Academy of Sciences Report: *Air Quality Management in the United States, 2004*. www.nap.edu/catalog/10728.html

FY 2016 Activities and Performance Plan:

In FY 2016, the program will measure, quality assure, and track emissions for SO₂, NO_x, CO₂, and other pollutants, including air toxics,¹¹ discharged to the atmosphere by approximately 4,000 fossil fuel-fired EGUs. The program will conduct audits, certify emission monitors, and report on the progress of these programs in achieving performance targets and environmental objectives. SO₂ and NO_x allowance transfers will be recorded in electronic tracking systems and the allowances held will be reconciled against emissions to ensure compliance for all affected sources in the Acid Rain Program and CSAPR programs.

In FY 2016, the program will support the proposed Carbon Pollution Standards for new, modified, and reconstructed power plants, the proposed Clean Power Plan for existing power plants,¹² and the President's Climate Action Plan through emissions monitoring, data analysis, and regulatory support. The program's emissions monitoring information will be used to inform analyses related to the power sector for use by policymakers and stakeholders. Economic modeling tools and emissions projections data will be used to analyze, inform, and forecast effects of potential future policy scenarios. In addition, technical expertise and data from the program will be used in support of regulatory development and assistance to stakeholders, particularly states, related to state plans.

In FY 2016, the program will modify, expand and improve the EPA-administered emissions monitoring and reporting system supporting required CEMS¹³ to incorporate, process and quality assure additional data for power plants pursuant to the proposed Carbon Pollution Standards for new, modified, and reconstructed power plants¹⁴ while operating and maintaining the system for emissions monitoring and reporting by clean air allowance trading programs.

The program also will work with states to develop emission reduction programs to comply with CAA Section 110(a)(2)(D) requirements. This may include regulations for reducing the interstate transport of NO_x emissions to address upwind states' significant contribution to nonattainment and interference with maintenance of the 2008 ozone NAAQS in downwind states. The EPA will work with states to create flexible approaches, such as emissions averaging and trading programs, where they potentially could be more cost-effective than application of source-specific emission standards as well as to assess the feasibility of air pollution emission controls.

The program also is responsible for implementing U.S. commitments under the U.S.-Canada Air Quality Agreement (Acid Rain Annex) of 1991 and the Ozone Annex of 2000 to reduce and maintain lower SO₂ and NO_x emissions to improve air quality and reduce acid deposition in the transboundary region.

¹¹ 40 C.F.R. pt. 63, subpt. UUUUU (National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units).

¹² See <http://www2.epa.gov/carbon-pollution-standards/regulatory-actions>. Also, 79 FR 34830 (June 18, 2014).

¹³ 40 C.F.R. pt. 75 (Continuous Emission Monitoring).

¹⁴ 79 FR 1429 (January 8, 2014). Also, see 79 FR 34960 (June 18, 2014) for carbon pollution standards for modified and reconstructed fossil fuel-fired electric generating units.

Performance Targets:

Measure	(A01) Annual emissions of sulfur dioxide (SO2) from electric power generation sources.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	9,400,000	8,450,000	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000	Tons Emitted
Actual	5,700,000	5,166,000	4,544,000	3,319,000	Data Avail 4/2015	Data Avail 12/2015			

The EPA tracks changes in nitrogen deposition and sulfur deposition to assess the effectiveness of the Acid Rain program with performance targets set for every three years. Please visit <http://www.epa.gov/airmarkets/progress/index.html> for additional information.

The EPA tracks changes in surface water acidity in lakes and streams in acid-sensitive regions to assess change in the number of chronically acidic water bodies. This is a long-term measure with a performance target set for 2030. For additional information, please visit <http://www.epa.gov/airmarkets/progress/index.html>.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$563.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$416.0 / -1.4 FTE) This program change reflects savings that will be realized through improved processes and reduced footprint for web-based public access databases, queries, and quick reports on allowance transactions and source emissions data.

Statutory Authority:

Clean Air Act, 42 U.S.C. §§ 7401-7671q.

Climate Protection Program

Program Area: Clean Air and Climate

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Address Climate Change

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$90,702.3</i>	<i>\$95,436.0</i>	<i>\$109,625.0</i>	<i>\$14,189.0</i>
Science & Technology	\$11,794.6	\$8,018.0	\$8,124.0	\$106.0
Total Budget Authority / Obligations	\$102,496.9	\$103,454.0	\$117,749.0	\$14,295.0
Total Workyears	222.7	222.1	234.1	12.0

Program Project Description:

Working across the EPA and in partnership with other agencies, the Climate Protection program will follow the President's call to action on climate change. The EPA's Climate Protection Program promotes efforts to reduce greenhouse gas (GHG) emissions and the President's Climate Action Plan through programs such as regulatory support for state programs, energy efficiency and renewable energy policies in meeting carbon pollution standards, voluntary partnerships with key industries, technical assistance and reporting, and verification and publication of GHG data. These programs complement and support the agency's implementation across all elements of the President's Climate Action Plan. Key Climate Action Plan elements supported include:

- Cutting carbon pollution from power plants through the Clean Power Plan;
- Establishing CO₂ emission standards and supporting increased fuel economy standards for heavy-duty vehicles;
- Cutting energy waste in homes, businesses, and factories;
- Reducing methane and hydrofluorocarbons (HFCs) emissions;
- Preparing the country to address the impacts of climate change; and,
- Leading international efforts to address climate change.

The EPA's voluntary public-private partnership programs are designed to capitalize on the cost-effective opportunities consumers, businesses, state and local governments, and other organizations have to invest in greenhouse gas reducing technologies, policies, and practices. These investments reduce greenhouse gas emissions from power plants, mobile sources, and various other sources.

Partners of the EPA's Climate Protection Programs have achieved reductions or avoided increasing carbon dioxide (CO₂) and other greenhouse gases, such as methane, nitrous oxide and fluorinated greenhouse gases – including HFCs, perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆). Actions taken today will continue to deliver environmental and economic benefits for many years to come, since the investments made by the EPA's partners as a result of the EPA programs often generate value for periods of ten years or more. In 2012 alone, the Climate

Protection Partnerships program reduced greenhouse gas emissions by more than 365 million metric tons of carbon dioxide equivalent (MMT CO_2E)—providing over \$13 billion in benefits to society by reducing damages from climate change.¹⁵

The EPA manages a number of voluntary efforts that remove barriers in the marketplace in order to deploy cost-effective technologies more rapidly. The EPA's programs work by overcoming widely acknowledged barriers to energy efficiency and deployment of GHG reduction measures such as: lack of clear, reliable information on technology opportunities; lack of awareness of energy efficient products, services, and transportation choices; and the need for additional incentives for manufacturers to invest in efficiency research and development.

The EPA started the ENERGY STAR program in 1992. The U.S. Department of Energy has supported the ENERGY STAR program, consistent with its areas of expertise. The program achieves significant and growing greenhouse gas reductions by removing market barriers which prevent the adoption of cost-effective, energy-efficient technologies and practices in the residential, commercial, and industrial sectors. It continues to yield significant environmental and economic results through its 16,000 partners. In the U.S., the ENERGY STAR program helped prevent more than an estimated 277 MMT CO_2E , resulting in savings of \$30 billion on Americans' annual utility bills in 2013 alone.¹⁶

The EPA is the overall ENERGY STAR brand manager and is responsible for the specification process for more than 70 product categories and the ENERGY STAR Most Efficient recognition program. The EPA continues to implement the ENERGY STAR Certified Homes program for both single family homes and multifamily buildings. The EPA manages the ENERGY STAR commercial and industrial programs; this work includes managing the brand, leading marketing, outreach, monitoring and verification, setting performance levels for building types, and managing and maintaining EPA's ENERGY STAR Portfolio Manager.

The EPA operates several voluntary programs that promote cost-effective reductions of methane and fluorinated gases by working collaboratively with industry. Methane is an especially potent greenhouse gas when released into the atmosphere. The AgSTAR program is a collaboration between the EPA and the Department of Agriculture that focuses on methane emission reductions from livestock waste management operations through biogas recovery systems. The Coalbed Methane Outreach Program promotes opportunities to profitably recover and use methane emitted from coal mining activities. The Landfill Methane Outreach Program promotes abatement and energy recovery of methane emitted from landfills. The Natural GasSTAR Program spurs the adoption of cost-effective technologies and practices that reduce methane emissions from the oil and natural gas sector through a collaborative partnership with companies.

¹⁵ Societal benefits are based on the social cost of carbon which monetizes the damages associated with an incremental increase in carbon emissions in a given year. The non- CO_2 emissions were converted to CO_2 -equivalents assuming global warming potentials from the IPCC Second Annual Report before applying the social cost of CO_2 . For more information on program benefits, please see Office of Atmospheric Programs, U.S. Environmental Protection Agency, 2013. "Climate Protection Partnerships 2012 Annual Report," Publication Number 430R13012.

¹⁶ U.S. Environmental Protection Agency, 2013. "ENERGY STAR Overview of 2013 Achievements," http://www.energystar.gov/about/sites/default/uploads/files/EnergyStar_POY_4page_040414_PrintReady_508compliant.pdf?231d-90ee.

The Voluntary Aluminum Industry Partnership and the SF6 Partnership for Electric Power Systems help the aluminum industry reduce its greenhouse gas emissions.

The EPA also manages the implementation of the Global Methane Initiative (GMI), a U.S. led, international public-private partnership that brings together over 40 partner governments and over one thousand public and private sector organizations to advance methane recovery and use methane as a clean energy source. GMI builds on the success of the EPA's domestic methane programs and focuses on advancing project development from agricultural manure management operations, coal mines, landfills, oil and gas systems, and municipal wastewater systems. The EPA continues to work with our partners to explore methane abatement opportunities in addition to recovery and use opportunities, to develop and implement country action plans, and to leverage other multilateral efforts such as the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants to facilitate more effective and efficient international methane reduction efforts. As of 2013, the U.S. has supported several hundred projects around the world and has leveraged over \$400 million in public and private sector investments. These projects are yielding results now, with actual annual reductions of nearly 22 MMTCO₂E in 2012, with an additional 50 MMTCO₂E in potential reductions anticipated from projects that have not yet been fully implemented.¹⁷

Launched by the EPA in 2004, the SmartWay Transport program is a voluntary partnership between the EPA and industry to reduce fuel use and emissions from goods movement. SmartWay helps its partners (shippers, motor carriers, rail carriers, logistics companies, and others) identify fuel-saving operational and technical solutions. These solutions accelerate the deployment of fuel saving, low emission technologies and best practices and promote fuel savings and GHG reductions across the global supply chain. Collectively, SmartWay partners have reduced greenhouse gases by 51.6 MMTCO₂E, NO_x emissions by 738 thousand tons, and PM emissions by 37 thousand tons, contributing to our nation's clean air and climate goals. Improving supply chain efficiency helps these companies grow the economy, protect and generate jobs, reduce the use of oil, contribute to our nation's energy security, and be good environmental stewards. A relatively small federal investment has brought significant change to this sector.

The EPA is the SmartWay brand manager and is responsible for the specification process for nearly 20 product and vehicle categories, including both family (passenger) vehicles and commercial (heavy duty freight truck and trailer) vehicles, and the SmartWay Partnership and SmartWay Affiliate recognition programs. SmartWay is the only voluntary program working across the entire freight system to comprehensively address key national economic, energy, and environmental goals related to goods movement and freight sustainability. Numerous states, countries, international organizations, and private companies rely on SmartWay's supply chain tools, testing protocols and public-private partnership approach for their freight transport efficiency programs.

Today, over 3,000 U.S. corporations and organizations, including many Fortune 500[®] companies, have registered with SmartWay, and they rely upon SmartWay's supply chain accounting tools and methods to assess, track, and reduce transportation-related carbon, energy

¹⁷ Additional information at: www.epa.gov/globalmethane and www.globalmethane.org

use, and air emissions. To date, these businesses have saved approximately \$8.1 billion dollars by cutting their fuel use by 65 million barrels of oil. This is equivalent to annual emissions from about five million cars.

The EPA manages a number of other partnership programs that advance cleaner energy solutions to reduce GHG emissions. Having worked for many years helping state and local governments design and implement cost-effective energy efficiency, renewable energy and combined heat and power programs, the State and Local Climate and Energy Program is contributing analytical and policy expertise to state efforts to meet the Clean Power Plan and helping local governments design, implement, and measure the effectiveness of programs that reduce GHGs. The EPA's Combined Heat and Power (CHP) Partnership offers tools and services to facilitate and promote cost-effective, highly efficient CHP projects, while its Green Power Partnership supports the procurement of green power by [Fortune 500®](#) companies, small- and medium-sized businesses, [local](#), [state](#), and [federal](#) governments, and [colleges and universities](#). The EPA's Center for Corporate Climate Leadership serves as a virtual resource center for all organizations looking to expand their work in the area of GHG measurement and management.

As part of the Clean Power Plan, the EPA proposed standards for existing power plants on June 2, 2014. Power plants are the largest source of carbon dioxide emissions in the United States, making up roughly one-third of all domestic greenhouse gas emissions. The climate partnership programs have provided significant expertise in development of the Clean Power Plan, particularly in developing its energy efficiency and renewable energy components.

FY 2016 Activities and Performance Plan:

The breadth and uniqueness of the Clean Power Plan rulemakings will require that the agency devote significant resources to its implementation. Traditionally, the EPA's regulatory analysis would focus on only emitting sources and "end of pipe" controls. The existing power plant rule requires the EPA to look at the emission control strategies that many states and companies are currently employing that are either shifting generation away from higher emitting plants or reducing the need for generation in the first place (through energy efficiency). Evaluating and capturing these strategies requires the agency to tap into technical and policy expertise not traditionally needed in EPA regulatory development (for example, nuclear, wind, solar, hydro-electric, and demand-side energy efficiency), and to understand and project system-wide approaches and trends in areas such as electricity transmission, distribution, and storage. It also means that states will be looking to the EPA for technical and policy assistance with regard to these programs.

The Clean Power Plan will be implemented through state compliance plans that are submitted to the EPA for review and approval, with initial submittals beginning in 2016. In FY 2016, the Climate Protection Program will focus substantial existing resources and invest new resources in developing the guidance and tools states will need to develop and implement their plans. For example, program expertise will be needed to model economic potential and evaluate costs and benefits of end-use energy efficiency and renewable energy measures to support state plan development. The program also will provide significant guidance to states on how to evaluate,

monitor, and verify the effectiveness of energy efficiency measures. States also have significant flexibility to prepare plans that address carbon pollution on a multi-state basis and may adopt a variety of strategies, including market-based approaches. The program will leverage its significant experience working with its partners to help states incorporate the most effective and economical strategies into their plans.

The EPA also will continue to implement its government/industry partnership efforts to achieve additional greenhouse gas reductions. In addition to reducing greenhouse gas emissions, these efforts also reduce other forms of pollution, including criteria and toxic air pollutants such as nitrogen oxides (NO_x), particulate matter, and mercury by accelerating the adoption of energy efficient products and practices.

The EPA will continue to implement the ENERGY STAR program across the residential, commercial, and industrial sectors consistent with Administration commitments to cut energy waste in homes, businesses, and factories by:

- Maintaining consumer confidence in the ENERGY STAR label through effective third-party certification of qualifying products. To earn the label, ENERGY STAR qualified products must be certified as meeting program requirements by an accredited third-party certification body. Certification includes qualification testing before product labeling and post-market verification testing to confirm that products continue to meet program requirements. The agency's continuing role in this area will include:
 - Oversight of the laboratories and certification bodies recognized by the EPA to participate in the program; and,
 - Response and follow up to verification testing failures across more than 70 product categories.
- Maintaining integrity and confidence in the ENERGY STAR label on buildings and plants through effective certification of ENERGY STAR applications. This includes conducting spot audits on applications, supporting a network of verifiers to address issues that arise during the certification process and increasing training opportunities on the use of Portfolio Manager and certification procedures.
- Ensuring that products with the ENERGY STAR label continue to represent top efficiency performance by updating product specifications in terms of stringency in a timely manner. For product categories with rapidly evolving models (e.g., consumer electronics, office equipment), specifications should be updated about every two years. For all other product categories, the EPA has committed to consistently monitor market share and consider revisions, when market share of labeled products reaches 35 percent or at least every 3 years. The program will increase the value of the ENERGY STAR label on products by adding products to the program, with a particular focus on products in the rapidly evolving electronics market. The EPA also will continue to support the ENERGY STAR Most Efficient recognition program.
- Updating existing building ratings as data become available and supporting the newly released 1-100 score for multifamily housing. As resources and data become available, the agency will expand efforts to measure energy use by adding new ENERGY STAR energy performance scales for additional commercial building types.

- Engaging regional, state and utility energy efficiency programs, trade associations and local governments to integrate ENERGY STAR as an educational platform to reduce energy use in commercial and industrial buildings. The EPA provides technical assistance and Portfolio Manager enhancements to over 10 jurisdictions that have adopted energy benchmarking and disclosure policies that require use of EPA's ENERGY STAR Portfolio Manager.
- Continuing to support efforts to enhance reporting functionality and data exchange for the redesigned Portfolio Manager, EPA's ENERGY STAR measurement and tracking tool.
- Continuing to support the ENERGY STAR Certified Homes program to ensure the technical rigor of the ENERGY STAR specifications, and working with participating builders, Home Energy Raters, and utility partners to develop technical solutions and facilitate their success in implementing these specifications through technical and training support.
- Educating and empowering homeowners with information on how to improve their homes' energy efficiency through on-line home assessment tools and ENERGY STAR recommended practices.
- Continuing to support the wide network of ENERGY STAR industrial partners through webinars, Focus Industry meetings and company-to-company mentoring.
- Promoting the ENERGY STAR Challenge for Industry and updating Industrial Energy Guides and Energy Performance Indicators (EPIs) in several sectors.

The EPA also will maintain its priorities to reduce CO₂ through the CHP and Green Power Partnerships in FY 2016. The CHP Partnership will focus its expertise on implementing the Climate Action Plan, including its efforts to promote the installation of CHP systems, which help cut energy waste in businesses and factories, and to support states' compliance with the Clean Power Plan through measures that advance highly-efficient CHP. The Green Power Partnership will focus on initiatives that increase demand for renewable energy, such as collaborative solar procurement within communities and aggregated green power purchasing, leveraging relationships with key NGOs to reach a broader set of potential partners and stakeholders.

In FY 2016, the EPA will continue to promote cost-effective corporate GHG management practices and provide recognition for superior efforts through a joint award program with non-government organizations. The virtual Center for Corporate Climate Leadership will contribute to this effort through providing tools and resources to organizations and overseeing the award program. This complements the ongoing efforts of the State and Local Climate and Energy Program to provide tools and assistance to states and locals as they implement and measure programs that reduce greenhouse gases.

The EPA will continue the SmartWay Transport Partnership to increase energy efficiency and lower emissions of freight transportation through verification and promotion of advanced technologies including: anti-idling technologies, lower rolling resistance tires, improved aerodynamic truck designs, and improved freight logistics. SmartWay also will continue its efforts to:

- Develop GHG accounting protocols for heavy-duty diesel trucks and explore opportunities to evolve protocols for the multimodal freight supply chain network;
- Promote SmartWay designated light-duty and heavy-duty vehicles that meet SmartWay's criteria for environmentally superior performance;
- Expand our SmartWay partner recruiting efforts while streamlining partner management processes;
- Update, as needed, federal guidance on low GHG-emitting vehicles for implementation of Energy Independence and Security Act (EISA) Section 141 federal vehicle purchase requirements;
- Continue to provide expertise and serve as a technical test bed in support of the agency's future policy direction for greenhouse gas emissions;
- Promote a suite of new partner tools, designed to more easily benchmark and track performance, for shipper, carrier and logistics companies; and,
- Encourage the adoption of SmartWay methods and tools internationally through stakeholder development, information sharing, and collaboration on pilot projects.

In FY 2016, the EPA will continue to work to reduce emissions of methane and fluorinated greenhouse gases through domestic partnerships with industry. The EPA will work with other agencies to implement the Interagency Methane Strategy, which is an integral component of the President's Climate Action Plan. As part of this effort, the EPA will be looking to maximize efficiencies by leveraging the efforts of both voluntary and regulatory programs. The EPA will continue to lead the Global Methane Initiative (GMI) and explore the most effective ways to leverage this and other partnerships to enhance public-private sector cooperation to reduce global methane emissions and deliver clean energy to markets. The EPA will strategically target its resources to advance the development and implementation of methane recovery and use projects by reducing barriers to methane capture and use at landfills, agricultural waste operations, coal mines, wastewater systems, and natural gas and oil facilities in key developing countries. Support will involve identifying and addressing technical, institutional, legal, regulatory, and other barriers to project development based on strategic planning and coordination with partner countries' methane action plans. The EPA's work will leverage investments and assistance provided by the private sector and other partners and with other multilateral initiatives such as the Climate and Clean Air Coalition.

The EPA will continue to develop and implement the Greenhouse Gas Reporting Program, and, as appropriate, support the activities under the President's Climate Action Plan, including the Interagency Methane Strategy. Consistent with the Methane Strategy, the program will continue to evaluate and address data gaps in order to improve oil and gas sector GHG emissions data and make that data publicly available. Established in October 2009, the GHG Reporting Program has a total of 41 sectors, with approximately 8,000 reporters. Focus areas for the program will include:

- Implementing regulatory revisions across multiple sectors to address stakeholder concerns associated with collection and potential release of data elements considered to be sensitive business information;
- Making regulatory revisions in response to stakeholder feedback to improve the scope and accuracy of GHG data, while reducing burden;

- Updating the database management systems to ensure alignment with regulatory amendments and improved reporting efficiency, including development of new electronic tools to remotely verify detailed emissions data;
- Carrying out a comprehensive QA/QC and verification process through a combination of electronic checks, staff reviews, and follow-up with facilities when necessary; and,
- Sharing data and sector-level analysis with the public in a timely manner, within the federal government, with state and local governments, and with reporting entities to support improved understanding of both emission levels and opportunities for GHG reductions.

The EPA will continue to fulfill U.S. obligations under the U.N. Framework Convention on Climate Change (UNFCCC). This includes preparing the annual Inventory of U.S. Greenhouse Gas Emissions and Sinks and providing technical assistance to developing countries. In FY 2016, the EPA will focus its efforts on improving the Inventory through the use of Greenhouse Gas Reporting Program data and data from external studies, and through working with USDA and the US Forest Service to improve estimates of GHG emissions and sequestration from the land sector.

Performance Targets:

Measure	(AD1) Cumulative number of major scientific models and decision support tools used in implementing environmental management programs that integrate climate change science data.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				3	4	5	5	5	Major Models and Tools
Actual				3	4	7			

Measure	(AD3) Cumulative number of major grant, loan, contract, or technical assistance agreement programs that integrate climate science data into climate sensitive projects that have an environmental outcome.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				1	2	3	3	3	Major Programs
Actual				3	5	7			

Measure	(G02) Million metric tons of carbon equivalent (MMTCO2E) of greenhouse gas reductions in the buildings sector.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	130.2	143.0	156.9	168.7	182.6	196.2	188.0	216.3	MMTCO2e
Actual	143.4	163.5	189.0	221.9	267.3	Data Avail 12/2015			

Measure	(G06) Million metric tons of carbon equivalent (MMTCO2E) of greenhouse gas reductions in the transportation sector.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	5.5	15.4	23.7	28.0	33.0	61	70	76	MMTCO2e
Actual	5.9	17.3	27.9	38.9	51.6	61.7			

Measure	(G16) Million metric tons of carbon equivalent (MMTCO2E) of greenhouse gas reductions in the industry sector.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	267.3	304.0	346.2	372.9	421.9	461.8	540.3	567.0	MMTCO2e
Actual	293.7	362.8	386.4	378.1	Data Avail 4/2015	Data Avail 12/2015			

Measure	(G18) Percentage of Annual Greenhouse Gas Emission Reports verified by EPA before publication.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target					93	95	95	95	Percent of Reports Verified
Actual					96	98			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$2,833.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefits costs, as well as other Working Capital Fund costs.
- (+\$6,957.0 / +13.6 FTE) This program change increases funds to support the President’s Climate Action Plan, including:
 - Implementation of the Clean Power Plan through development of guidance and tools that states will need to create their plans for addressing carbon pollution from existing power plants. In particular, program expertise will be needed to model economic potential and evaluate costs and benefits of end-use energy efficiency and renewable energy measures to support state plan development. The program also will provide significant guidance to states on how to evaluate, monitor, and verify the effectiveness of energy efficiency measures;
 - Implementation of the President’s Interagency Methane Strategy, including assessing current emissions data, addressing data gaps, and identifying technologies and best practices for reducing emissions to inform our programs and measures; and,
 - Reduction of use and emissions of HFCs under the Significant New Alternatives Policy (SNAP) program in key sectors, such as refrigeration and air conditioning and support for multilateral efforts, which will require upgrades to data systems and models needed for the various interagency and international efforts that the EPA has been asked to lead.
- (-\$38.0) This program change reflects a savings in the Greenhouse Gas Reporting Program due to more stable regulatory requirements, improved verification, and greater accuracy and consistency with data reporting. As the thousands of facilities that meet GHGRP regulatory requirements become more familiar with the reporting procedures, the EPA expects fewer requests for assistance and can reduce the amount of outreach needed to ensure compliance with the program.

- (+\$512.0) This program change increases funds to support the ongoing Global Methane Initiative to enhance public-private sector cooperation to reduce global methane emissions and deliver clean energy to markets. This includes working to advance the development and implementation of methane recovery and use projects by reducing barriers to methane capture and use at landfills, agricultural waste operations, coal mines, wastewater systems, and natural gas and oil facilities in key developing countries.
- (+\$3,925.0 / -1.6 FTE) This program change increases funding for ENERGY STAR for effective third-party certification of qualifying products, and the implementation of the EPA's verification process for residential, commercial, and industrial buildings.

Statutory Authority:

CAA Amendments, 42 U.S.C. 7401 et seq. – Sections 102, 103, 104 and 108; Pollution Prevention Act (PPA), 42 U.S.C. 13101 et seq. – Sections 6602, 6603, 6604 and 6605; National Environmental Policy Act (NEPA), 42 U.S.C. 4321 et seq. – Section 102; Grand Canyon Protection Act (GCPA), 15 U.S.C. 2901 – Section 1103; Federal Technology Transfer Act (FTTA), 15 U.S.C. – Section 3701a; CWA, 33 U.S.C. 1251 et seq. – Section 104; SWDA, 42 U.S.C. 6901 et seq.- Section 8001; EPA, 42 U.S.C. 16104 et seq.

Federal Stationary Source Regulations

Program Area: Clean Air and Climate

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Address Climate Change; Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$26,777.0	\$25,000.0	\$37,545.0	\$12,545.0
Total Budget Authority / Obligations	\$26,777.0	\$25,000.0	\$37,545.0	\$12,545.0
Total Workyears	118.0	115.4	122.5	7.1

Program Project Description:

Under the Clean Air Act (CAA), the EPA is required to set National Ambient Air Quality Standards (NAAQS) for ambient pollutants considered harmful to public health and the environment. The six “criteria” pollutants for which the EPA has established NAAQS are: particulate matter (PM), ozone, sulfur dioxide (SO₂), nitrogen dioxide (NO₂), carbon monoxide (CO), and lead. The CAA requires the EPA to periodically review the science upon which the NAAQS are based and the standards themselves. These national standards form the foundation for air quality management and establish goals that protect public health and the environment.

Section 109 of the CAA Amendments of 1990 established two types of NAAQS. Primary standards are set at a level requisite to protect public health with an adequate margin of safety, including the health of at-risk populations, such as children, older adults, and persons with pre-existing cardiovascular or respiratory disease such as asthma.¹⁸ Secondary standards are set at a level requisite to protect public welfare from any known or anticipated adverse effects, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

This program also includes activities, mandated by the CAA, directed toward reducing air emissions of toxic, criteria, and other pollutants from stationary sources. Specifically, to address air toxics, this program provides for the development of National Emission Standards for Hazardous Air Pollutants (NESHAP) for major sources (i.e., Maximum Achievable Control Technology - MACT standards) and area sources, the development of standards of performance and emissions guidelines for waste combustion sources, the assessment and, as necessary, regulation of residual risk remaining after implementation of the NESHAP, the periodic review and revision of the NESHAP, and associated national guidance and outreach. In addition to existing CAA and court-ordered mandates, the EPA is required to periodically review, and where appropriate, revise both the list of air toxics subject to regulation and the list of source categories for which standards must be developed. The program also includes issuing, reviewing, and periodically revising, as necessary, New Source Performance Standards (NSPS) for criteria and

¹⁸ The legislative history of section 109 indicates that a primary standard is to be set at “the maximum permissible ambient air level which will protect the health of any [sensitive] group of the population,” and that for this purpose “reference should be made to a representative sample of persons comprising the sensitive group rather than to a single person in such a group” [S. Rep. No. 91-1196, 91st Cong., 2d Sess. 10 (1970)].

certain listed pollutants, and establishing Reasonably Available Control Technology (RACT) through issuance and periodic review and revision of control technique guidelines (CTG).

The CAA also requires protection of air quality related values (AQRV) for 156 congressionally mandated national parks and wilderness areas, known as Class I areas. Visibility is one such AQRV, and Congress established a national goal of returning visibility in the Class I areas to natural conditions, i.e., the visibility conditions which existed without manmade air pollution. The EPA developed the Regional Haze Rule which sets forth the requirements that state plans must satisfy to meet the national goal by 2064.

The President announced the Climate Action Plan in June 2013. This broad-based plan will cut carbon pollution that causes climate change and affects public health. This program supports the Plan's goal to develop carbon pollution standards for new and existing power plants.

FY 2016 Activities and Performance Plan:

The CAA requires the EPA to set NSPS for industrial categories that cause, or significantly contribute to, air pollution that may endanger public health or welfare. In FY 2016, the EPA will continue work to address NSPS for sources of greenhouse gases (GHGs), consistent with the requirements of the CAA. Section 111 of the CAA requires the EPA, at least every eight years, to review and, if appropriate, revise NSPS for each source category for which such standards have been established. In FY 2016, the EPA will work with states to develop plans to lower the carbon intensity of power generation from existing power plants under the Clean Power Plan. The proposed rule for existing sources provides a great amount of flexibility and discretion to states to design an individualized or multi-state plan that works best for them. As a result, the agency will need to provide a substantial amount of direct technical assistance to states so they will be able to complete their plans by the expected deadlines (2016-2017 for individual state plans and 2018 for multi-state plans). Extensive outreach and technical guidance to the states will be essential in helping the states develop plans that realize the expected carbon pollution reductions in the most cost-effective, least disruptive way. The EPA will continue work toward final regulations to reduce emissions of landfill gas, which contains the potent GHG methane. The EPA also will continue to complete any actions to reduce both criteria pollutants and methane from the oil and gas production sector, initiated in response to the five white papers the EPA released for public comment and peer review.

In FY 2016, the EPA will continue its reviews of the NAAQS in accordance with the statutory mandate to review the standards every five years, and make revisions, as appropriate. In particular, the EPA will finalize its review of the ozone NAAQS in early FY 2016. Conducting multiple concurrent reviews, requires a substantial investment in highly trained staff and the allocation of significant analytical resources. Each review involves a comprehensive reexamination, synthesis, and evaluation of the scientific information, the design and conduct of complex air quality and risk and exposure analyses, the development of a comprehensive policy assessment providing a transparent staff analysis of the scientific basis for alternative policy options, and the development of proposed and final rules. The assessments provide the foundation for the agency's decisions and undergo extensive internal and external scientific peer review.

In addition to reviewing existing standards, work is currently underway to achieve and maintain compliance with existing standards. These include a potentially revised ozone standard in 2015 and the ozone standards established in 2008, 1997, and 1979; the 1997 PM₁₀ standards; the 2012, 2006 and 1997 PM_{2.5} standards; the 2008 lead standard; the 2010 NO₂ standard; the 1971 CO standard; and the 2010 SO₂ standard.

Air toxics are pollutants known to cause or suspected of causing cancer, birth defects, reproductive effects, or other serious health problems. The 2005 National Air Toxics Assessment (NATA) estimated that the U.S. population at the time of the assessment¹⁹ had an increased cancer risk of 50 in a million due to the inhalation of toxic air pollutants from outdoor sources. Additionally, the 2005 NATA estimated that about 13.8 million people—about 5 percent of the total U.S. population based on the 2000 census—were exposed to air toxics levels that associated with a cancer risk of 100 in a million or greater. Populations most likely to experience higher risks live mainly in urban locations where they are exposed to a combination of sources. To reduce or eliminate the health risks and exposures to air toxics in affected communities and to fulfill its statutory and court-ordered obligations more efficiently, the EPA will continue to pursue opportunities to meet multiple CAA requirements for stationary sources in more integrated ways in FY 2016. For example, where the CAA requires the agency to take multiple regulatory actions that affect the same industry, the EPA will align the timing of these rulemaking actions to take advantage of synergies between the multiple rules, where feasible. Coordinating such actions allows the agency to use fewer resources to meet multiple CAA objectives for controlling both criteria and toxic air pollutants while considering cost-effectiveness and technical feasibility of controls. It also creates greater certainty for regulated industry. Even with the greater efficiency provided by this approach, resources are needed to complete the court-ordered and statutorily required review and promulgation of standards and conduct rigorous analysis to incorporate the best available science. Among the sectors affected by this coordinated effort are pulp and paper, oil and natural gas production, and petroleum refining.

The program cannot address all regulatory reviews statutorily mandated by the CAA so work will be prioritized, according to resources, and to meet court-ordered deadlines. For example, section 112(d)(6) of the CAA requires the EPA to review and revise, as necessary, within eight years, all of the MACT standards that have been promulgated under CAA section 112 since 1990. These reviews include collection of new information and emissions data from industry; review of emission control technologies; and associated economic analyses for the affected industries. Similarly, section 112(f) of the CAA requires the EPA to conduct reviews of the risk that remains after the implementation of MACT standards within eight years of promulgation. There are over 80 stationary source (air toxics) rules due for review under Section 112 of the CAA, and the agency is expecting litigation over already-missed deadlines. The EPA will engage in rulemaking efforts to review and revise, as necessary and appropriate, priority industry sectors, including, but not limited to Integrated Iron and Steel Manufacturing, Aerospace Manufacturing, Coke Ovens, Publicly Owned Treatment Works, Plywood and Composite Wood Products, Ethylene Production, and several coatings source categories. In addition, under section

¹⁹The 2005 NATA used the 2000 census, which estimated the U.S. population to be 285 million.

129 of the CAA, the EPA continues efforts to address the risk and technology review for Large Municipal Waste Combustors and to address issues related to Other Solid Waste Incinerators.

In 2016, the EPA will address program-wide issues, including court-vacated rules that apply across many industrial sources (such as exemptions for start-up and shutdown, removal of the affirmative defense, and the collection and application of the best available data using electronic systems that increase efficiency, accuracy, and transparency). The EPA has reviewed existing regulations to identify potential emissions monitoring deficiencies, and the agency has embarked upon a course to correct these, including the application of new, advanced monitoring technologies. As part of the E-enterprise effort to encourage electronic reporting of compliance data, the agency will continue to develop modifications to reporting procedures, including the incorporation of electronic reporting provisions into regulations. The reports that will be required to be submitted electronically include summary reports, excess emissions reports, performance test reports, performance evaluation reports and other similar reports required by Part 60 and 63 rules. These requirements will replace the current requirements to provide the specified reports to the EPA in hardcopy, but do not change the type of information that is required to be submitted. This will reduce the burden and costs to the industry, state, and federal entities.

Finally, the EPA will continue to devote resources to evaluating State Implementation Plans for regional haze to ensure that states are making reasonable progress towards their visibility improvement goals. States are required to report on their progress every five years and make comprehensive plan revisions every 10 years, with the next plan due in 2018. The CAA requires the EPA to assess and approve the plans and correct any deficiencies. Ongoing litigation related to state regional haze plans as well as litigation associated with other CAA programs that the regional haze program relies upon for its regulatory construct may require regional haze rulemaking changes to align with forthcoming court decisions.

Performance Targets:

Measure	(001) Cumulative percentage reduction in tons of toxicity-weighted (for cancer risk) emissions of air toxics from 1993 baseline.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	36	36	36	37	42	42	42	41	Percent Reduction
Actual	40	40	61	61	61	Data Avail 2017			

Measure	(002) Cumulative percentage reduction in tons of toxicity-weighted (for non-cancer risk) emissions of air toxics from 1993 baseline.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	59	59	59	59	59	59	58	57	Percent Reduction
Actual	53	53	55	55	55	Data Avail 2017			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$655.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$11,440.0 / +4.1 FTE) This program change increases funds for the Clean Power Plan. Given the complexity of the existing power plant rulemaking, resources are needed for the agency to develop federal plans, review state plans, and address additional rulemaking activities.
- (+\$450.0 / +3.0 FTE) This program change increases funds for regulatory reviews that are currently behind their statutorily mandated dates under the Clean Air Act. This investment will enable the program to better address the growing number of court-ordered deadlines.

Statutory Authority:

CAA (42 U.S.C. 7401-7661f).

Federal Support for Air Quality Management

Program Area: Clean Air and Climate

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Address Climate Change; Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$121,018.7</i>	<i>\$120,572.0</i>	<i>\$157,339.0</i>	<i>\$36,767.0</i>
Science & Technology	\$5,689.7	\$6,923.0	\$8,493.0	\$1,570.0
Total Budget Authority / Obligations	\$126,708.4	\$127,495.0	\$165,832.0	\$38,337.0
Total Workyears	786.9	785.1	842.0	56.9

Program Project Description:

Under the Clean Air Act (CAA), the EPA is required to set National Ambient Air Quality Standards (NAAQS) for ambient pollutants considered harmful to public health and the environment. The six “criteria” pollutants for which the EPA has established NAAQS are: particulate matter (PM), ozone, sulfur dioxide (SO₂), nitrogen dioxide (NO₂), carbon monoxide (CO), and lead. The CAA requires the EPA to periodically review the science upon which the NAAQS are based and the standards themselves. These national standards form the foundation for air quality management and establish goals that protect public health and the environment.

Section 109 of the CAA Amendments of 1990 established two types of NAAQS. Primary standards are set at a level requisite to protect public health with an adequate margin of safety, including the health of at-risk populations, such as children, older adults, and persons with pre-existing cardiovascular or respiratory disease such as asthma.²⁰ Secondary standards are set at a level requisite to protect public welfare from any known or anticipated adverse effects, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Fine particulate matter (PM_{2.5}) is associated with premature deaths as well as aggravation of cardiovascular and respiratory disease (as indicated by increased hospital and emergency department visits, and development of chronic respiratory disease). The EPA estimates that PM_{2.5} contributes to tens of thousands of deaths each year. Exposure to ozone is associated with a wide range of adverse health effects, from decreased lung function and increased respiratory symptoms to serious indicators of respiratory morbidity such as emergency department visits and hospital admissions for respiratory causes and new onset asthma as well as premature mortality. Elevated levels of lead in children have been associated with IQ loss, poor academic achievement, and delinquent behavior. Short-term exposure to SO₂ can result in adverse respiratory effects, including narrowing of the airways, which can cause difficulty breathing, particularly in at-risk populations, including people with asthma who are active outdoors, and

²⁰ The legislative history of section 109 indicates that a primary standard is to be set at “the maximum permissible ambient air level which will protect the health of any [sensitive] group of the population,” and that for this purpose “reference should be made to a representative sample of persons comprising the sensitive group rather than to a single person in such a group” [S. Rep. No. 91-1196, 91st Cong., 2d Sess. 10 (1970)].

children and older adults. Exposure to NO₂ has been associated with a variety of health effects, including increased respiratory symptoms, especially among asthmatic children, and respiratory-related emergency department visits and hospital admissions, particularly for children and older adults.

The Federal Support for Air Quality Management Program assists states, tribes, and local air pollution control agencies in the development, implementation, and evaluation of programs to implement the NAAQS, establish standards for reducing air toxics, and sustain visibility protection. The EPA develops federal measures and regional strategies that help to reduce emissions from stationary and mobile sources; however, states have the primary responsibility (and tribes may choose to take responsibility) for developing clean air measures necessary to meet the NAAQS and protect visibility. The EPA partners with states, tribes, and local governments to create a comprehensive air quality management program to ensure that multi-source and multi-pollutant reduction targets and air quality improvement objectives, including consideration of environmental justice issues, are met and sustained. The EPA also supports training for state, Tribal, and local air pollution professionals on rulemakings and other significant actions. This program also supports enforcement case development, as appropriate.

For each of the six criteria pollutants, the EPA tracks two kinds of air pollution trends: air pollutant concentrations based on actual measurements in the ambient (outside) air at selected monitoring sites throughout the country, and emissions based on engineering estimates or measurements of the total tons of pollutants released into the air each year. The EPA works with state and local governments to ensure the technical integrity of source controls in State Implementation Plans (SIPs) and with tribes to ensure the technical integrity of source controls in Tribal Implementation Plans (TIPs). The EPA assists states, tribes, and local agencies to identify the most cost-effective control options available, including consideration of multi-pollutant reductions and innovative strategies. This program includes working with other federal agencies to ensure a coordinated approach and working with other countries to address pollution sources outside U.S. borders that pose risks to public health and the environment within the U.S. The EPA also assists states, tribes and local governments to implement the Ozone and PM Advance programs. The goal of these programs is to help attainment areas take action to keep ozone and PM levels below the NAAQS to ensure continued health protection and better position areas to remain in attainment.

The CAA also requires protection of air quality related values (AQRV) for 156 congressionally mandated national parks and wilderness areas, known as Class I areas. Visibility is one such AQRV and Congress established a national goal of returning visibility in the Class I areas to natural conditions, i.e., the visibility conditions that existed without manmade air pollution by 2064. The EPA developed the Regional Haze Rule which sets forth the requirements that state plans must satisfy to meet the national goal.

Toxic air pollutants are known to cause or suspected of causing increased risk of cancer and other serious health effects, such as neurological damage and reproductive harm. This Federal Support Program assists state, Tribal, and local air pollution control agencies in reducing air toxics emissions through modeling, emission inventories, monitoring, assessments, and strategies. The EPA also supports programs that reduce inhalation risk and multi-pathway risk

posed by deposition of air toxics to water bodies and ecosystems, facilitates international cooperation to reduce transboundary and intercontinental air toxics pollution, develops and updates the National Emissions Inventory (NEI), develops risk assessment methodologies for toxic air pollutants, and provides training for air pollution professionals. If resources are available in 2015, the agency expects to update the National Air Toxics Assessment (NATA) to provide recent information on air toxics risks from a national perspective.

The program also has worked to protect communities at a local level from exposure to toxic air pollutants. For instance, this past year the agency published an Advance Notice of Proposed Rulemaking to update air toxics standards for petroleum refineries, which included first-ever proposed requirements for fence-line monitoring to better understand the risks to neighborhoods located near refineries. If finalized, this rule will help ensure that proposed standards are being met and that neighboring communities are not being exposed to unintended emissions.

The President announced the Climate Action Plan in June 2013. The broad-based plan calls for cuts in carbon pollution to reduce the contribution of human activities to climate change and its impacts on public health. The Federal Support Program assists states, tribes, and local air pollution control agencies in the development, implementation, and evaluation of programs to reduce carbon pollution. The program also supports the agency's work with international partners to combat short-lived climate pollutants.

FY 2016 Activities and Performance Plan:

Addressing Climate Change

During FY 2016, the EPA will continue to take steps in partnership with other agencies to implement the President's Climate Action Plan. In FY 2016, the EPA will implement emission standards to reduce greenhouse gas (GHG) emissions from the power sector. The agency will actively engage with states as they develop and implement state compliance plans that will be required by the emission standards established under the Clean Power Plan including development of the implementation infrastructure needed for states to develop and submit approvable plans. The proposed Clean Power Plan rule for existing sources provides a great amount of flexibility and discretion to states to design individualized or multi-state plans that work best for them. As a result, the agency will need to provide a substantial amount of direct technical assistance to states so they will be able to complete their plans by the expected deadlines (2016-2017 for individual state plans and 2018 for multi-state plans). This support infrastructure will involve the development of national processes and technical guidance, formation of expert teams to provide technical assistance to states on particular topics, and the development of tracking and reporting systems to capture information on plan development and approval, and to evaluate, measure and verify data for meeting plan goals.

In FY 2016, the EPA will issue additional guidance and, as appropriate, rules on addressing GHGs in the Title V operating permits and Prevention of Significant Deterioration (PSD) programs. The EPA will continue to provide oversight of the activities of state and local permitting programs as they review permit applications that address GHGs. In FY 2016, the EPA regional offices will continue to issue and oversee increased numbers of permits because of the

new requirements for permitting minor sources in Indian country. The EPA will continue to address complex national policy questions that arise and ensure national consistency as GHG requirements are implemented.

Under the President's Climate Action Plan, the EPA will work with other countries to take action to address climate change. The EPA will consider the results of a range of international assessments to address the climate impacts of short-lived climate pollutants. These air pollutants, including black carbon, a component of PM and ozone, are contributing to and accelerating the impacts of climate change. Reducing emissions of these pollutants can create near-term climate and public health benefits. The EPA will continue to identify the most significant domestic and international sources of black carbon and ozone precursor emissions by working with the multilateral Climate and Clean Air Coalition (CCAC), the Arctic Council, the Convention on Long-range Transboundary Air Pollution (LRTAP), and other related international efforts. Based on these findings and enhanced analytical capabilities, the EPA will pursue effective steps for reducing these emissions. The EPA will continue its collaboration with CCAC partners to develop and deploy rapid assessment tools to enable countries to determine the benefits of mitigating short-lived climate pollutants.

Finally, in FY 2016, the agency will provide on-the-ground resources to assist overburdened and vulnerable communities as they work to address the effects of climate change. These community resource coordinators will work with external partners such as community stakeholder organizations, other federal agencies, state, local and regional government, foundations, private sector, academia, and foundations to assist communities as they begin to plan for climate change and implement actions to increase resilience to climate impacts.

Improving Air Quality

Since passage of the Clean Air Act Amendments (CAAA) in 1990, air quality has improved significantly for communities across the country. From 2003 to 2012, population-weighted ambient concentrations of fine particulate matter and ozone have decreased 26 percent and 13 percent, respectively. However, even with this progress, in 2012, approximately 45 percent of the U.S. population lived in counties with air that did not meet health-based standards for at least one pollutant.

In FY 2016, the EPA will continue its CAA-prescribed responsibilities to administer the NAAQS by taking federal oversight actions and by developing regulations and policies to ensure continued health and welfare protection during the transition between existing and new standards. The EPA will provide technical and policy assistance to states and tribes developing or revising attainment SIPs/TIPs, and will designate or re-designate areas as attainment or nonattainment, as appropriate. Implementation of the NAAQS improves air quality and reduces related health and welfare impacts and their costs to the nation.

The agency is investing in additional core regional air program capacity to enable the regional programs to act on both incoming SIPs and the SIP backlog in a manner that aligns with commitments to the states to eliminate the SIP backlog as well as to act on incoming SIPs within agreed upon timeframes. Beyond investing additional resources, the EPA also is looking at

innovative ways to improve the efficiency and effectiveness of the Clean Air Act State Implementation Plan (SIP) process in the regions. For example, the EPA Region 10 office conducted a LEAN event that focused on the SIP process at the state and local level. This LEAN event, which included reducing SIP review time from just under 19 months to approximately 12 months, has broader application within the entire region. The EPA will continue to share lessons learned with all of the regional offices as part of the ongoing effort to improve the SIP approval process.

To support the NAAQS federal program, the EPA will continue, within current statutory and resource limitations, to make improvements in area designations and implementation. For example, the EPA has been working to improve the timeliness of necessary new rulemakings and guidance when a NAAQS is revised. In FY 2016, the EPA intends to issue appropriate transition guidance and area designation guidance for a potentially revised 2015 ozone standard. The agency will continue consulting with states to determine additional methods to improve the SIP development and implementation process that are within current statutory limitations.

The EPA will continue to assist other federal agencies and state and local governments in implementing the conformity regulations. The regulations require federal agencies, taking actions in nonattainment and maintenance areas, to determine that the emissions caused by their actions will conform to the SIP. The EPA also will work with state, Tribal, and local agencies to share information about available tools, resources, and data that may be of use to identify emission reduction and public participation options.

The EPA will continue to implement a strategy that, where appropriate, supports the development and evaluation of multiple pollutant measurements. This strategy includes changes, where the agency deems necessary, to effectively implement revised NAAQS monitoring requirements for ozone, lead, SO₂, NO₂, CO, and PM.

The EPA will continue to devote resources to evaluating state implementation plans for regional haze to ensure that states are making reasonable progress towards their visibility improvement goals. States are required to report on their progress every five years and make comprehensive plan revisions every 10 years, with the next plans due in 2018. The CAA requires the EPA to assess and approve the plans and correct any deficiencies.

The EPA will continue to support permitting authorities on the timely issuance of renewal permits and to respond to citizen petitions under the Title V operating permits program. The EPA will continue to address monitoring issues in underlying federal and state rules and to take appropriate action to improve the Title V program. Please see <http://www.epa.gov/air/oaqps/permits/> for further details. The agency will perform monitoring and modeling support associated with permit issuance and National Environmental Policy Act evaluation. The EPA maintains the RACT/BACT/LAER clearinghouse (RBLC) to help permit applicants and reviewers make pollution prevention and control technology decisions for stationary air pollution sources. The RBLC includes data submitted by several U.S. territories and all 50 states on over 200 different air pollutants and 1000 industrial processes. Please see <http://cfpub.epa.gov/RBLC/> for more information.

In FY 2016, the EPA will undertake analyses aimed at developing New Source Review (NSR) regulations to more effectively address sources of air pollution and the EPA will continue to work with state and Tribal governments to implement revisions to the PSD requirements and NSR rules, including updates to delegation agreements (for delegated states) and review of implementation plan revisions (for SIP-approved states and TIP-approved tribes). The EPA will continue to review and respond to reconsideration requests and (working with the Department of Justice) legal challenges related to NSR program revisions, take any actions necessary to respond to court decisions, and work with states and industries on NSR applicability issues. Emphasis will be given to assisting tribes in implementing the Tribal NSR Rule to help them develop the capacity to assume delegation of the rule or to effectively participate in reviews of permits issued by the EPA in Indian country.

As part of the agency's efforts to modernize its businesses processes for greater effectiveness and efficiency consistent with a high-performing organization, the EPA will undertake activities to accelerate implementation progress under its CAA preconstruction and operating permitting programs. These activities will accelerate progress on sources emitting criteria pollutants and GHGs, especially sources using natural gas. Modernization of permitting processes will help facilitate the significant investments in modern plants anticipated over the next decade.

Through a combination of rulemaking, guidance, and technical tools, the EPA will provide greater clarity and certainty for sources while eliminating unnecessarily time-consuming process steps, resulting in expedited decision-making that fully assures public health and environmental protection. Areas of focus will include pending permits involving GHGs, updates of key models and emissions factors, and communication of available flexibilities to enhance permit durability and avoid the need for frequent permit revisions.

In FY 2016, the EPA will continue to participate in assessing and addressing the effects of global and hemispheric transboundary air pollution on U.S air quality management efforts. The EPA will continue participating in negotiations and implementing activities under international treaties, such as the U.S.-Canada Agreement, the Convention on Long-range Transboundary Air Pollution, and the Global Minamata Convention on mercury to address fine particles, ozone, mercury, and persistent organic pollutants. In addition, the EPA will continue working on mutually beneficial capacity building efforts with key countries and regions (e.g., China, other Asian nations, and Mexico) to reduce emissions that contribute to transboundary air pollution.

One of the EPA's top priorities is to fulfill its CAA and court-ordered obligations. The CAA requires that the emissions control bases for all Maximum Achievable Control Technology (MACT) standards be reviewed and updated, as necessary, every eight years. In FY 2016, the EPA will continue to conduct risk assessments to determine whether the MACT rules appropriately protect public health. The program will prioritize its work, as resources allow, with an emphasis on meeting court ordered deadlines. To develop effective standards, the EPA needs accurate information about actual emissions, their composition, specific emission points, and transport into communities.

In addition to meeting CAA requirements under Sections 111, 112, and 129 for new or revised emission standards for criteria, toxic, and other air pollutants for a wide variety of stationary

source categories, the EPA will continue, as resources allow, its multi-pollutant and sector-based efforts by constructing and organizing initiatives around industrial sectors. The focus of these efforts is to comply with the CAA requirements for NSPS and National Emission Standards for Hazardous Air Pollutants (NESHAP) by addressing an individual sector's emissions comprehensively and to prioritize regulatory efforts to address the sources and pollutants of greatest concern. The EPA will continue to look at all pollutants in an industrial sector and identify ways to take advantage of the co-benefits of pollution control. In developing sector and multi-pollutant approaches, the EPA seeks innovative solutions that address the differing nature of the various sectors.

In FY 2016, the EPA will continue to implement the Urban Air Toxics Strategy which helps provide information and assistance to states and communities through documents, websites, webinars and training sessions on tools to help them in conducting assessments and identifying risk reduction strategies for air toxics. The agency will continue to work with environmental justice communities to address air toxics concerns.

In FY 2016, the agency's programs and activities will align with the E-Enterprise business strategy, an integral part of the agency's focus on [launching a new era of state, local, tribal, and international partnerships](#). E-Enterprise for the Environment is a transformative 21st century strategy – jointly governed by states and EPA – for modernizing government agencies' delivery of environmental protection. Under this program, the agency will streamline its business processes and systems to reduce reporting burden on states and regulated facilities, and improve the effectiveness and efficiency of regulatory programs for the EPA, states and tribes. In FY 2016, the EPA will continue revising regulations to enhance its ability to collect electronic submissions of emissions data directly from the sources subject to CAA regulations as one aspect of the agency's E-Enterprise business strategy. The EPA's goals in requiring facilities to report emissions data electronically are to reduce reporting burden and costs for industry, states, and federal activities; to reduce the need to develop information collection requests that are otherwise a part of the rule development process; to improve the transparency of emissions information; to expedite the development and revision of emissions factors; and to enhance the quality of the data underpinning the stationary source regulations. As part of E-Enterprise, the program has taken steps to improve the quality and efficiency of its electronic reporting process, including releasing a new Electronic Reporting Tool (ERT) version, initiating development of a web-based ERT, and releasing a new Compliance and Emissions Data Reporting Interface. In addition, the program, in collaboration with other offices, is supporting the development of air sensors which can be used by citizen scientists and others to better understand air quality in their area. The program also is preparing to meet the EPA's goal of streaming real time air quality information from two sites by October 2015.

The EPA will continue to operate and maintain the Air Quality System (AQS), which houses the nation's air quality data and allows for exchanges of data and technology. The EPA will modify AQS, as necessary, to reflect new ambient monitoring regulations and to ensure that it complies with critical programmatic needs and with the agency's architecture and data quality standards. The EPA will continue to operate and maintain the AQS Data Mart, which provides access to the scientific community and others to obtain air quality data via the internet. The EPA will modify

the AQS Data Mart, as necessary, to ensure it reflects changes made to AQS.²¹ Further, the EPA will continue to operate and maintain the Emissions Inventory System (EIS), a system used to quality assure and store current and historical emissions inventory data and to generate the National Emissions Inventory (NEI). The NEI is used by the EPA, states, and others to analyze the public health risks from air toxics and to develop strategies to manage those risks and support multi-pollutant analysis covering air toxics, criteria pollutants, and GHGs. The EPA will continue to operate and maintain AirNow, which provides real-time air quality data and forecasts nationwide.²² As part of the EPA's E-Enterprise business strategy, public access to air quality information will be improved in FY 2016. To support forthcoming agency public data portals, the EPA also will upgrade its AirNow air quality data and system to provide the public with improved access and higher quality information.

In FY 2016, the EPA will provide assistance to state, Tribal, and local agencies in implementing national programs and assessing their effectiveness in a streamlined way. The EPA uses a broad suite of analytical tools such as source characterization analyses, emission factors and inventories, statistical analyses, source apportionment techniques, quality assurance protocols and audits, improved source testing and monitoring techniques, urban and regional-scale numerical grid air quality models, and augmented cost/benefit tools to assess control strategies. Please see <http://www.epa.gov/ttn> for further details. The agency will maintain these tools (e.g., integrated multiple pollutant emissions inventory, air quality modeling platforms, etc.) to provide the technical underpinnings for more efficient and comprehensive air quality management and for integration with climate change activities.

The EPA will maintain the analytical capabilities required to develop effective regulations including: analyzing the economic impacts of regulations and policies; developing and refining existing emission test methods for measuring pollutants from smokestacks and other industrial sources; developing and refining existing source sampling measurement techniques to determine rates of emissions from stationary sources; and conducting dispersion modeling that characterizes the atmospheric processes that disperse a pollutant emitted by a source. Resources from the Science and Technology appropriation component of this program support the scientific development of these capabilities. The EPA's current assessments indicate that, while many air toxics are widespread, areas of concentrated emissions, such as communities with concentrated industrial and mobile source activity (near ports or distribution areas), often have greater cumulative exposure. Working with stakeholders and informed by analysis of air quality health risk data, the EPA is working to prioritize key air toxics regulations that can be completed expeditiously and that will address significant risks to public health.

The EPA also is working to improve its analytical tools. Based on resources available, the EPA intends to complete the next National Air Toxics Assessment (NATA) in 2015. The next NATA utilizes emission data from 2011, and will include updates to specific methods used in the analysis. For example, the EPA will update methods for estimating area and mobile source emissions, and update air dispersion modeling based on recent advances in the science.

²¹ For more information about AQS, visit <http://epa.gov/ttn/airs/airsaqs/>, and for the AQS Data Mart, http://www.epa.gov/ttn/airs/aqsdatamart/basic_info.htm

²² For more information about AirNow, visit www.airnow.gov

The EPA will continue to offer technical support to state and local agencies as they implement the National Air Toxics Monitoring Network. The network has two main parts: the National Air Toxics Trends Sites (NATTS) and Local Scale Monitoring (LSM) projects. The NATTS, designed to capture the impacts of widespread pollutants, is comprised of 27 permanent monitoring sites, and the LSMs are comprised of scores of short-term monitoring projects, each designed to address specific local issues. Please see <http://www.epa.gov/ttn/amtic/airtoxpg.html> for additional information. The EPA continues to use its technical expertise to improve monitoring systems to fill data gaps and get a better assessment of actual population exposure to toxic air pollution. Also, the EPA will continue updating analytical efforts designed to provide nationwide information on ambient levels of criteria and toxic air pollutants.

Finally, communities do not always have sufficient air quality data at a local level to understand and act upon existing risks. In FY 2016, the EPA will invest in technical support to help enable environmentally overburdened and underserved communities to monitor and understand their air quality. This complements the investment in the part of this program project found in the Science and Technology appropriation.

Performance Targets:

Measure	(M94) Percent of major NSR permits issued within one year of receiving a complete permit application.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	78	78	78	78	78	78	78	78	Percent Issued
Actual	76	46	73	80	81	Data Avail 12/2015			

Measure	(M95) Percent of significant Title V operating permit revisions issued within 18 months of receiving a complete permit application.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	100	100	100	100	100	88	88	88	Percent Issued
Actual	87	82	84	86	91	Data Avail 12/2015			

Measure	(M96) Percent of new Title V operating permits issued within 18 months of receiving a complete permit application.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	95	99	99	99	99	75	75	75	Percent Issued
Actual	70	67	72	76	60	Data Avail 12/2015			

Measure	(MM7) Percent of State Implementation Plans (SIPs) removed from backlog								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target					10	10	10	10	Percentage Removed
Actual					41	38.6			

Measure	(M9) Cumulative percentage reduction in population-weighted ambient concentration of ozone in monitored counties from 2003 baseline.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	10	11	12	13	15	16	16	16	Percent Reduction
Actual	13	15	16	13	15	Data Avail 12/2015			

Measure	(M91) Cumulative percentage reduction in population-weighted ambient concentration of fine particulate matter (PM-2.5) in all monitored counties from 2003 baseline.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	5	6	15	16	20	28	29	30	Percent Reduction
Actual	17	23	26	26	29	Data Avail 12/2015			

Measure	(MM9) Cumulative percentage reduction in the average number of days during the ozone season that the ozone standard is exceeded in non-attainment areas, weighted by population.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	23	26	29	45	50	50	50	50	Percent Reduction
Actual	47	56	58	54	59	Data Avail 12/2015			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$4,954.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefits costs, as well as other Working Capital Fund costs.
- (+\$15,156.0 / +25.1 FTE) This reflects an increase in program funds to support critical work across both EPA headquarters and regions for the Clean Power Plan. The proposed existing power source rule involves multiple complex regulatory processes and extensive and unprecedented work with states and other entities to develop necessary infrastructure and to provide technical assistance to support states. Also, EPA must build capacity to support states as they submit their plans, to review plans, and to support implementation in FY 2016 and beyond. Additionally, the agency's desire to provide flexibility to states in customizing their plans, requires additional personnel to offer direct and timely technical assistance to states as they develop their plans. These FTE would be located both in the regional offices to provide tailored, state-specific assistance and in headquarters where technical experts would develop guidances that are sector-wide in scope and address questions that affect overall implementation of the plan.
- (+\$10,000.0) This program change specifically requests an increase for contract funding for the agency to use to develop resources to equip states with flexible national-level tools, suitable for states to use for their Clean Power Plan work and planning. To inform the development of resources, the agency will obtain significant feedback from states and other interested parties as to the types of resources that would be most useful to states.

For instance, states will need a way to track and verify the effectiveness of the elements of their plans, such as their energy efficiency measures. These contract resources may be used to fund the development of a standard reporting system for states to use, or adapt as needed, for tracking their compliance data. These resources also will be used to provide states with up-to-date data on the power system that will be needed for states to develop and implement their plans.

- (+\$3,645.0 / +24.3 FTE) This program change increases regional personnel to address regulatory implementation across the air program. In particular, the air program has a backlog of SIPs awaiting processing, permitting needs (both NAAQS and GHG-related), and air quality monitoring and analysis needs. These FTE would help provide states and industry with greater certainty in managing air quality.
- (+\$368.0 / +2.5 FTE) This program change increases EPA technical support to help underserved communities monitor and understand their air quality.
- (+\$750.0 / +5.0 FTE) This program change increases on-the-ground resources to assist overburdened and vulnerable communities with efforts across environmental media in areas such as planning for climate change and determining actions to increase resilience to climate impacts. . These community resource coordinators will work with external partners such as community stakeholder organizations, other federal agencies, state, local and regional government, foundations, private sector, academia, and foundations to assist communities.
- (+\$1,017.0) This program change increases funds to support E-Enterprise activities that enhance direct electronic submission of emission data by regulated sources resulting in reduced reporting burden, and improve the public's access to information.
- (+\$877.0) This program change reflects support for web tools and technology infrastructure to support activities across the program.

Statutory Authority:

CAA Amendments of 1990 (42 U.S.C. 7401-7661f).

Stratospheric Ozone: Domestic Programs

Program Area: Clean Air and Climate

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Restore and Protect the Ozone Layer

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$5,121.6	\$4,941.0	\$4,963.0	\$22.0
Total Budget Authority / Obligations	\$5,121.6	\$4,941.0	\$4,963.0	\$22.0
Total Workyears	22.8	22.5	22.0	-0.5

Program Project Description:

The stratospheric ozone layer protects life by shielding the Earth’s surface from harmful ultraviolet (UV) radiation. Scientific evidence, amassed over the past 35 years, demonstrates that ozone-depleting substances (ODS) used around the world destroy the stratospheric ozone layer and contribute to climate change.²³ Overexposure to increased levels of UV radiation due to ozone layer depletion is expected to continue to raise the incidence of skin cancer and other illnesses.²⁴ Skin cancer is the most common cancer in the U.S. One American dies almost every hour from melanoma, the deadliest form of skin cancer.²⁵ Increased UV levels are associated with other human and non-human effects, including cataracts, immune suppression, and effects on aquatic ecosystems and agricultural crops.

The EPA estimates that in the U.S. alone, the worldwide phase-out of ODS will avert millions of cases of non-fatal and fatal skin cancers (melanoma and non-melanoma), as well as millions of cataract cases.²⁶ Cataracts are the leading cause of blindness worldwide. The EPA’s estimates regarding the U.S. health benefits from the ODS phase-out are based on the assumption that international ODS phase-out targets will be achieved, allowing the ozone layer to recover later this century. According to current atmospheric research, the ozone layer is not expected to recover until mid-century at the earliest, due to the long lifetimes of ODS in the stratosphere.²⁷ Most ODS also are potent greenhouse gases with high global warming potentials (GWPs). Therefore, the ODS phase-out has already resulted in significant climate benefits with a reported drop between 1988 and 2010 of about 8.0 gigatons of carbon dioxide equivalent per year.²⁸

²³ World Meteorological Organization (WMO). Scientific Assessment of Ozone Depletion: 2010. Global Ozone Research and Monitoring Project–Report No. 52, 516 pp., Geneva, Switzerland. 2011.

²⁴ Fahey, D.W., and M.I. Hegglin (Coordinating Lead Authors), Twenty questions and answers about the ozone layer: 2010 Update, In Scientific Assessment of Ozone Depletion: 2010, Global Ozone Research and Monitoring Project–Report No. 52, 516 pp., World Meteorological Organization, Geneva, Switzerland, 2011.

²⁵ American Cancer Society. “Skin Cancer Facts.” Accessed February 2, 2013. Available on the internet at <http://www.cancer.org/Cancer/CancerCauses/SunandUVExposure/skin-cancer-facts>.

²⁶ U.S. Environmental Protection Agency (EPA). The Benefits and Costs of the Clean Air Act 1990-2010: EPA Report to Congress. EPA: Washington, DC. November 1999.

²⁷ WMO, 2011.

²⁸ *HFCs: A Critical Link in Protecting Climate and the Ozone Layer*, UNEP 2011.

The EPA's Stratospheric Ozone Protection Program implements provisions of the Clean Air Act Amendments of 1990 (the Act) and the *Montreal Protocol on Substances that Deplete the Ozone Layer* (Montreal Protocol), continuing the control and reduction of ODS in the U.S. and lowering health risks to the American public. A combination of regulatory and partnership programs are used to protect and restore the ozone layer and maximize climate benefits. The Act provides for a phase-out of production and consumption of ODS and requires controls on their use, including banning certain emissive uses, requiring labeling to inform consumer choice, and requiring sound servicing practices for the use of ODS in various products (e.g., air conditioners and refrigerators). The Act also prohibits venting ODS or their substitutes, including hydrofluorocarbons (HFCs).

Partnership programs are calibrated to increase benefits by focusing on specific areas where the agency has identified significant opportunities. The Responsible Appliance Disposal (RAD) Program²⁹ is a partnership that protects the ozone layer and reduces emissions of greenhouse gases through the recovery of ODS and HFCs from old refrigerators, freezers, air conditioners, and dehumidifiers prior to disposal. RAD has more than 50 partners, including manufacturers, retailers, utilities, and state governments. The GreenChill Partnership³⁰ helps supermarkets transition to environmentally-friendlier refrigerants, reduce harmful refrigerant emissions, and move to advanced refrigeration technologies, strategies, and practices that lower the industry's impact on the ozone layer and climate. The program now includes more than 7,800 stores in all 50 states, over 20 percent of the United States supermarkets. In 2012, partners reduced leak rates to 50 percent below the national average and established plans to reduce leaks even more.

As a signatory to the Montreal Protocol, the U.S. is committed to ensuring that our domestic program is at least as stringent as international obligations and to regulating and enforcing the terms of the Protocol domestically. With 197 Parties and universal participation, the Montreal Protocol is the most successful international environmental treaty in existence.³¹ With U.S. leadership, the Parties to the Montreal Protocol agreed in 2007 to a more aggressive phase-out for ozone-depleting hydrochlorofluorocarbons (HCFCs). This adjustment to the Montreal Protocol requires dramatic global HCFC reductions during the period 2010-2040, equaling a 47 percent reduction in overall emissions compared to previous commitments under the Protocol. The 2007 adjustment also calls on Parties to promote the selection of alternatives to HCFCs that minimize environmental impacts, in particular impacts on climate.³²

FY 2016 Activities and Performance Plan:

In carrying out the requirements of the Act and the Montreal Protocol in FY 2016, the EPA will continue to implement the domestic rulemaking agenda for control and reduction of ODS. Ongoing work of the Significant New Alternatives Policy (SNAP) program to evaluate and regulate ODS substitutes will continue and, consistent with the Climate Action Plan announced

²⁹ For more information, see: <http://www2.epa.gov/rad>.

³⁰ For more information, see: www.epa.gov/greenchill

³¹ See: http://ozone.unep.org/Publications/MP_Key_Achievements-E.pdf,
http://www.eoearth.org/article/Montreal_Protocol_on_Substances_that_Deplete_the_Ozone_Layer,
<http://ozone.unep.org/highlights.shtml> (Nov 2, 2009, entry)

³² *Montreal Protocol Decision XIX/6: Adjustments to the Montreal Protocol with regard to Annex C, Group I, substances (hydrochlorofluorocarbons)*.

June 25, 2013, the EPA will “encourage private-sector investment in low-emissions technology by identifying and approving climate-friendly chemicals while prohibiting certain uses of the most harmful chemical alternatives.”³³ The EPA will continue to identify efficiencies in integrating partnerships and regulatory programs to maximize opportunities to protect the ozone layer and climate system. The EPA will provide compliance assistance for rules controlling ODS production, import, and emission.

In FY 2016, the EPA will focus its work to ensure that the United States continues to meet its ODS production and import caps under the Montreal Protocol and Clean Air Act. The Act requires reductions and a schedule for phasing out the production and import of ODS. These requirements correspond to the domestic consumption cap for class II HCFCs as set by the Parties to the Montreal Protocol. Each ODS is weighted based on its ozone depleting potential. As of January 1, 2015, ODS production and imports were capped at 1,524 ODP-weighted metric tons, which is 10 percent of the U.S. baseline under the Montreal Protocol. In 2020, U.S. production and import will be reduced further, to 0.5 percent of the U.S. baseline, and in 2030, all ODS production and import will be phased out, except for any potential exempted amounts.

With the decline in allowable HCFC production, a significant stock of air conditioning and refrigeration equipment that continues to use HCFCs will need access to recovered and recycled/reclaimed HCFCs to ensure proper servicing. The EPA reviews available market data to ensure that future demand for virgin HCFCs can be satisfied under production and import caps. The EPA also will implement other provisions of the Montreal Protocol, including exemption programs to allow for a continued smooth transition from ODS to alternatives.

Given the President’s Climate Action Plan component on HFCs, as well as the upcoming ODS phaseout milestones under the Montreal Protocol and CAA and the global interest in enabling climate-friendly alternatives to both ODS and high GWP HFCs, the EPA is receiving and responding to an increased number of SNAP applications, many of which present options with lower GWPs. Under the SNAP program,³⁴ the EPA reviews alternatives to assist the market’s transition to alternatives that are safer, including for the climate. The purpose of the program is to allow a smooth transition by identifying substitutes that offer lower overall risks to human health and the environment. As necessary, the EPA restricts the use of alternatives for given applications that, if not restricted, would be more harmful to human health and the environment on an overall basis. The EPA also changes the status of alternatives where other alternatives are available or potentially available that pose overall lower risk. In FY 2016, the EPA will focus on adding new alternatives to the list of acceptable alternatives and changing the status of high-GWP HFCs where alternatives that present a lower overall risk are available.

In FY 2016, the EPA will consider the suite of available substitutes for each of approximately 50 end uses (e.g., appliance foam-blowing agents, commercial refrigeration, air-conditioning) in eight industrial sectors, and with the listing of new alternatives, review previous decisions, as necessary. In addition to being more climate-friendly, many of these alternatives warrant increased focus because they offer significant energy efficiency gains as part of the overall transition. A robust list of climate-friendly options also will create a vital resource as Federal

³³ *The President’s Climate Action Plan*, June 2013.

³⁴ For more information, see: www.epa.gov/ozone/snap/.

procurement officials respond to the Administration’s call “to purchase cleaner alternatives to HFCs whenever feasible and transition over time to equipment that uses safer and more sustainable alternatives.”³⁵

With the decrease in allowable HCFC production in 2016, the EPA will continue to work with federal and international agencies to stem illegal imports of ODS. The EPA will continue data exchange with U.S. Customs and Border Protection and Homeland Security Investigations on ODS importers and exporters for Customs to determine admissibility and target illegal ODS shipments entering the U.S. In 2015, the EPA will continue education and outreach to manufacturers and importers of HCFC labeling requirements. These additional efforts foster the smooth transition to non-ozone depleting alternatives in various sectors.

Performance Targets:

Measure	(S01) Remaining US Consumption of hydrochlorofluorocarbons (HCFCs), chemicals that deplete the Earth's protective ozone layer, measured in tons of Ozone Depleting Potential (ODP).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	<9,900	<3,811	<3,811	<3,700	<3,700	<3,700	<1,520	<1,520	ODP Tons
Actual	3,414	2,435	2,339	1,450	1,640	Data Avail 12/2015			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$96.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$74.0 / -0.5 FTE) This program change reflects a reduction in the review of ODS substitute applications.

Statutory Authority:

CAA Amendments of 1990, Title I, Parts A and D (42 U.S.C. 7401-7434, 7501-7515), Title V (42 U.S.C. 7661-7661f), and Title VI (42 U.S.C. 7671-7671q); The Montreal Protocol on Substances that Deplete the Ozone Layer.

³⁵ *The President’s Climate Action Plan*, June 2013.

Stratospheric Ozone: Multilateral Fund

Program Area: Clean Air and Climate

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Restore and Protect the Ozone Layer

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$8,901.0	\$8,928.0	\$9,057.0	\$129.0
Total Budget Authority / Obligations	\$8,901.0	\$8,928.0	\$9,057.0	\$129.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The ozone layer in the stratosphere protects life on Earth by preventing harmful ultraviolet (UV) radiation from reaching the Earth's surface. Scientific evidence amassed over the past 35 years demonstrates that ozone-depleting substances (ODS) used around the world destroy the stratospheric ozone layer and contribute to climate change.³⁶ Increased levels of UV radiation, due to ozone depletion, contribute to increased incidence of skin cancer, cataracts, and other health effects.³⁷ Skin cancer is the most common cancer, accounting for nearly half of all cancers.³⁸ Increased UV levels also are associated with other human and non-human effects, including cataracts, immune suppression, and effects on aquatic ecosystems and agricultural crops.³⁹

The *Montreal Protocol on Substances that Deplete the Ozone Layer* (Montreal Protocol) is the international treaty designed to protect the ozone layer by facilitating a global phaseout of ODS. The Montreal Protocol is the only treaty in the United Nations system to ever achieve universal ratification with 197 Parties. The United States implements its treaty obligations primarily through Title VI of the Clean Air Act. The EPA estimates that in the United States alone, the worldwide phase-out of ODS will avert millions of cases of non-fatal and fatal skin cancers (melanoma and nonmelanoma)⁴⁰ and millions of cataract cases between 1990 and 2165.⁴¹ According to current research, the ozone layer is expected to recover later this century. This long recovery period is due to the long atmospheric lifetime of ODS.⁴² These estimates of ozone layer

³⁶ World Meteorological Organization (WMO). *Scientific Assessment of Ozone Depletion: 2010*. Geneva, Switzerland. 2011.

³⁷ Fahey, D.W., and M.I. Hegglin (Coordinating Lead Authors), Twenty questions and answers about the ozone layer: 2010 Update, In *Scientific Assessment of Ozone Depletion: 2010, Global Ozone Research and Monitoring Project–Report No. 52*, 516 pp., World Meteorological Organization, Geneva, Switzerland, 2011.

³⁸ American Cancer Society. "Skin Cancer Facts." Accessed August 9, 2010. Available on the Internet at <http://www.cancer.org/Cancer/CancerCauses/SunandUVExposure/skin-cancer-facts>.

³⁹ United Nations Environment Programme (UNEP), *Environmental Effects of Ozone Depletion and Its Interactions with Climate Change: 2010 Assessment*. Nairobi, Kenya, 2011.

⁴⁰ U.S. Environmental Protection Agency (EPA). *The Benefits and Costs of the Clean Air Act 1990-2010: EPA Report to Congress*. EPA: Washington, DC. November 1999.

⁴¹ *Protecting the Ozone Layer Protects Eyesight – A Report on Cataract Incidence in the United States Using the Atmospheric and Health Effects Framework Model*. Accessed August 9, 2010. Available on the Internet at: <http://www.epa.gov/ozone/science/effects/AHEFCataractReport.pdf>

⁴² WMO, 2011.

recovery assume full implementation of the Montreal Protocol by all developed and developing countries.

The *Multilateral Fund for the Implementation of the Montreal Protocol* (Multilateral Fund) was created by the Parties to the Montreal Protocol to provide funds to enable developing countries to comply with their Protocol obligations to phase out the use of ODS on an agreed schedule. The United States and other developed countries contribute to the Multilateral Fund to support projects and activities in over 140 developing countries to eliminate the production and use of ODS. As ODS also are powerful greenhouse gases,⁴³ the assistance provided by the Fund from 1990 to 2010 has served to eliminate more than 189,000 teragrams of carbon dioxide equivalent (Tg CO₂eq).⁴⁴

The U.S. contribution to the Multilateral Fund, which is split between the EPA and the Department of State, is 22 percent of the total based on the United Nations scale of assessment. The Multilateral Fund draws heavily on U.S. expertise and technologies. In addition, the permanent seat of the United States on the Multilateral Fund's governing body (the Executive Committee) can help focus efforts on cost-effective assistance and encourage climate-friendly transitions.

In 2007, the Parties to the Montreal Protocol agreed to adjust and accelerate the phase-out required for ozone-depleting hydrochlorofluorocarbons (HCFCs). This adjustment involves dramatic HCFC reductions on the order of 47% during the period from 2010-2040. Most of these reductions will occur in developing countries. As HCFCs are strong greenhouse gases, this faster phase-out also will result in large reductions in greenhouse gas emissions. The agreed text supporting the 2007 HCFC adjustment to the Protocol committed donor countries, including the United States, to provide "stable and sufficient" funding to the Multilateral Fund to enable developing country compliance with the new requirements.⁴⁵

In addition to supporting the phaseout of ODS, the Parties to the Protocol have been discussing using the Protocol to phase down Hydrofluorocarbons (HFCs), a class of chemicals that are predominantly used as alternatives to the ODS being phased out under the Montreal Protocol. While they do not deplete the ozone layer, many HFCs are highly potent greenhouse gases whose use is growing rapidly as replacements for phased-out ODS used in refrigerators, air conditioners, and industrial applications. Left unabated, HFC emissions could grow to nearly 20 percent of carbon dioxide emissions by 2050, making them a serious climate mitigation concern.⁴⁶

Over the past five years, the United States, Canada and Mexico have jointly been pursuing an amendment to the Montreal Protocol to phase down the production and consumption of HFCs. The proposed amendment would reduce consumption and production and control byproduct

⁴³ Velders, Guus J.M, et. al., "Preserving Montreal Protocol Climate Benefits by Limiting HFCs," *Science*, 24 February 2012.

⁴⁴ United Nations Environment Programme (UNEP), [The Montreal Protocol and the Green Economy: Assessing the contributions and co-benefits of a Multilateral Environmental Agreement](#). Nairobi, Kenya, 2012. Also the website of the Multilateral Fund <http://www.multilateralfund.org/default.aspx>

⁴⁵ Decision XIX/6, from the 19th Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer

⁴⁶ <http://www.whitehouse.gov/the-press-office/2013/09/06/united-states-china-and-leaders-g-20-countries-announce-historic-progress>

emissions of HFCs in all countries, and would enable countries that can already access the Protocol's Multilateral Fund to receive financial assistance to facilitate their HFC phase down.⁴⁷ Adoption of an amendment similar to what was proposed in 2013 would result in a global reduction of over 90,000 Tg CO₂eq cumulative by 2050.⁴⁸ This effort is in keeping with President Obama's Climate Action Plan⁴⁹ which called on the United States to lead through international diplomacy and domestic action to reduce emissions of HFCs. It also is consistent with his directive to "work to use the expertise and institutions of the Montreal Protocol to phase down consumption and production of HFCs."

FY 2016 Activities and Performance Plan:

The EPA's contributions to the Multilateral Fund in FY 2016 will help continue support for cost-effective projects designed to build capacity and eliminate ODS production and consumption in over 140 developing countries. Today, the Multilateral Fund supports over 6,800 activities in over 140 countries that, when fully implemented, will have phased out more than 460,000 ODS tons. Additional projects will be submitted, considered, and approved in accordance with Multilateral Fund guidelines.

In 2016, the United States will continue to promote developing country transitions from ODS directly into low-global warming potential (GWP) alternatives. This work will support developing country compliance with the Protocol while also supporting the development and deployment of low-GWP technologies and the potential phase down of HFCs.

Performance Targets:

Work under this program also supports performance results in the Stratospheric Ozone: Domestic Program under the Environmental Program and Management Tab and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$129.0) This program change reflects an increase to help fund capacity building projects in developing countries for the purpose of eliminating ODS production and consumption.

Statutory Authority:

CAA Amendments of 1990, Title 1, Parts A and D (42 U.S.C. 7401-7434, 7501-7515), Title V (42 U.S.C. 7661-7661f), and Title VI (42 U.S.C. 7671-7671q); The Montreal Protocol on Substances that Deplete the Ozone Layer.

⁴⁷ <http://conf.montreal-protocol.org/meeting/mop/mop-25/presession/default.aspx>,

⁴⁸ U.S. Environmental Protection Agency, *Benefits of Addressing HFCs under the Montreal Protocol*, June 2013, accessible at: http://www.epa.gov/ozone/downloads/Benefits_of_Addressing_HFCs_Under_the_Montreal_Protocol_6-21-2013.pdf.

⁴⁹ Executive Office of the President, The President's Climate Action Plan, June 2013, The White House, Washington, 2013.

Program Area: Brownfields

Brownfields

Program Area: Brownfields

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$23,372.2	\$25,593.0	\$29,599.0	\$4,006.0
Total Budget Authority / Obligations	\$23,372.2	\$25,593.0	\$29,599.0	\$4,006.0
Total Workyears	130.9	151.5	149.8	-1.7

Program Project Description:

The Brownfields program collaborates with stakeholders to plan, inventory, assess, safely cleanup, and reuse properties designated as brownfields sites and which may contain hazardous substances, pollutants, or contaminants. Stakeholders include states, tribes, local communities, and others involved in environmental revitalization and economic redevelopment. The EPA's Brownfields and Land Revitalization program is designed to help stakeholders involved in environmental revitalization and economic redevelopment to work together to plan, inventory, assess, safely cleanup, and reuse brownfields. Brownfield sites are real property where the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Brownfields redevelopment is a key to revitalizing downtown areas, neighborhoods, and rural communities, thereby increasing property values and creating jobs. A study updated in 2014 concluded that cleaning up brownfield properties lead to residential property value increases of 4.9 to 11.1 percent.⁵⁰ According to a 2007 study, an average of 10 jobs are created for every acre of brownfields redevelopment.⁵¹ Based on historical data provided by the Assessment Cleanup and Redevelopment Exchanges System (ACRES) database, \$1 of the EPA's Brownfields funding leverages between \$17 and \$18 in other public and private funding.

To help describe who benefits from the EPA-funded brownfield grants and technical assistance, the EPA collected data on the populations within three miles of these sites. The three mile area surrounding sites was used because it represents the geographic area where people in a community live most of their lives – where they shop, work, go to school, go out to restaurants, and participate in outdoor activities. In looking at the census data, the agency found that approximately 91 million people live within three miles of a brownfields site that received the EPA's assistance; this equates to roughly 30 percent of the U.S. population.⁵² This population is

⁵⁰ Haninger, Kevin, Lala Ma, and Christopher Timmins. 2014. "The Value of Brownfield Remediation" National Bureau of Economic Research Working Paper No. 20296, <http://www.nber.org/papers/w20296.pdf>.

⁵¹ Howland, Marie. 2007. "Employment Effects of Brownfields Redevelopment, What Do We Know from the Literature?" *Journal of Planning Literature*. 22:91.

⁵² U.S. EPA, Office of Solid Waste and Emergency Response Estimate. 2014. Data collected includes: (1) site information as of the end of FY 2011 from ACRES; and (2) census data from the 2007-2011 American Community Survey (ACS). Site data from FY 2011 was chosen to correspond most closely to the census data in the 2007-2011 ACS. In FY 2011 this included 11,568 Brownfields Program sites in the 50 U.S. states with accurate location data. A circular site boundary, equal to the site acreage,

more minority, low income, linguistically isolated, and less likely to have a high school education than the U.S. population as a whole. Investment from the EPA and other federal agencies remains critical in helping to address the environmental, economic, and social issues that affect the populations surrounding brownfield sites.

Revitalizing these once productive properties helps communities by removing blight; improving environmental conditions and providing public health benefits; satisfying the growing demand for land; helping to reduce urban sprawl; fostering ecologic habitat enhancements; enabling economic development; and maintaining or improving quality of life. This program comprises the administrative component necessary to achieve the Brownfields program mission. It includes human resources, travel, training, technical assistance, and research activities.

The EPA's work is focused on removing barriers and creating incentives for brownfields cleanup and redevelopment. The EPA's Brownfields program funds research efforts, clarifies liability issues, develops and maintains federal, state, Tribal, and local partnerships, conducts environmental education activities, and creates related job training and workforce development programs. The program provides the necessary administrative framework to develop the funding solicitations, and to select, award and manage the ongoing and approximately 300 additional grant awards each year. The EPA brownfield grants are administered through cooperative agreements and require considerable investment by the agency to ensure successful performance by the recipient and that applicable grant management requirements are being met by the recipient

This program supports agency staff that oversees and manages hundreds of brownfields cooperative agreements awarded each year. The program also provides financial assistance for: (1) hazardous substances training for organizations representing the interests of states and Tribal co-implementers of the Brownfields law and (2) support to address environmental justice issues and brownfields research by providing tools and technical resources to help a variety of stakeholders identify technologies, technical help, contacts, and other resources to aid in the assessment and cleanup of brownfield properties and create stronger and more resilient local economies. Technical assistance to communities in the form of research, training, and analyses can lead to appropriate and cost effective implementation of brownfields redevelopment projects by providing communities the knowledge necessary to understand market conditions, evaluate technical and economic alternatives available and understand potential obstacles to implementing effective and economically productive solutions. Technical assistance to grantees has proven valuable and needed in today's economy. The EPA's assistance provides crucial help in addressing important redevelopment details.

The program staff work across the agency's other programs, such as the air, water, enforcement and other media offices to advance approaches for brownfields cleanup and redevelopment that will improve environmental outcomes, such as reducing vehicle miles traveled, reducing stormwater runoff and pollutant loadings, deconstruction and sustainable materials management and encouraging energy efficient reconstruction. This program will continue to identify

was modeled around the latitude/longitude for each site and then a 3 mile buffer ring was placed around the site boundary. Census data was then collected for each block group whose centroid fell within the 3 mile area.

opportunities to support communities whose vision includes the revitalization of brownfields and other contaminated properties for historic property and habitat preservation conservation and recreational purposes, as well as collaborate with our partner agencies and communities in identifying critical resources that may be appropriately employed in pursuit of restoring and protecting our outdoors legacy. In addition, the EPA will work with other agencies to bring to bear implementation reforms.

The EPA's enforcement program develops guidance and tools that clarify potential environmental cleanup liabilities, thereby providing greater certainty and comfort for parties seeking to reuse these properties. The enforcement program also can provide direct support to parties seeking to reuse contaminated properties in order to facilitate transactions through consultations and the use of enforcement tools.

The Brownfields program employs smart growth and sustainable design approaches in brownfield redevelopment. The smart growth activities include: (1) working with state and local governments, private sector and other stakeholders to create cross-cutting solutions that improve the economic and institutional climate for brownfields redevelopment; (2) removing barriers and creating incentives for brownfields redevelopment; and (3) ensuring improved water and air quality in brownfields redevelopment.

One of the key benefits of redeveloping brownfields is that it can often lead to a reduced need for green space development. According to one study, industrial projects moving on to one acre of brownfields land would have required an average of 6.2 acres of green space; residential projects would have required 5.6 acres, and commercial projects 2.4 acres.⁵³ In addition, fewer resources are often required to develop a project on brownfield land because of pre-existing infrastructure, such as roads and utilities.

The primary mission of the Land Revitalization program is to support communities in their efforts to restore contaminated lands into sustainable community assets that maximize beneficial economic, ecological, and social uses to the community and ensure protection of human health and the environment. A priority for both the Land Revitalization and Brownfields programs is to assist communities facing the difficult challenge of recovering from the recession, particularly those areas affected by the closing of manufacturing facilities and reorganization of the U.S. auto industry. The auto industry is beginning to recover and this recovery is contributing to the nation's overall economic recovery. However, part of the necessary restructuring implemented by the auto industry included the abandonment of unwanted assets such as former manufacturing plants. Many communities across the country are faced with finding solutions for the assessment, cleanup and repurposing of former manufacturing and auto industry properties. The agency is setting a priority to work with these communities to assist them in finding solutions so that these properties can once again become assets to their communities. The Land Revitalization and Brownfields programs can assist these communities with planning, training, and technical assistance to plan for and implement solutions that will result in the cleanup and revitalization of former manufacturing facilities.

⁵³ Deason, J.P., G.W. Sherk, and G.A. Carroll (2001). Final Report: Public Policies and Private Decisions Affecting the Redevelopment of Brownfields: An Analysis of Critical Factors, Relative Weights and Areal Differentials. Submitted to U.S. EPA, Office of Solid Waste and Emergency Response by Deason et al., George Washington University, Washington, D.C.

FY 2016 Activities and Performance Plan:

Throughout FY 2016, the Brownfields program will continue to foster federal, state, Tribal, local, and public-private partnerships to return properties to productive economic use in communities. This approach emphasizes environmental health and protection that also achieves economic development and job creation through the redevelopment of brownfields properties, particularly in underserved and disadvantaged communities.

In FY 2016, the EPA's Brownfields program will manage a significant workload of assessment, cleanup, revolving loan fund (RLF), area-wide planning, and Environmental Workforce Development and Job Training cooperative agreements. The program also manages brownfields research, training, and technical assistance grants. Project officers for these grants negotiate and award new cooperative agreements as part of current workload as well as manage the grants throughout their full life-cycle. The FY 2016 budget focuses on the agency's capability to provide administrative and technical support to the EPA Regional Offices; the necessary contractual support to manage the program's numerous grant funding competitions;⁵⁴ manage the significant cooperative agreement workload, and to manage and upgrade the ACRES database that collects data from grantees regarding the specific activities and environmental outcomes of the grant funding. The FY 2016 budget provides the administrative resources necessary to more effectively manage the considerable and time-intensive cooperative agreement workload behind the EPA's commitment to make a visible difference in local communities.

In FY 2016, the \$2.6 million increase will allow the EPA to select another round of Area-Wide Planning (AWP) grantees as part of the President's POWER+ Plan, as well as continuing to support the approximately 63 AWP grants that have already been awarded through FY 2015 (program is funded in STAG). The agency's request would provide a greater level of support for both assessment cooperative agreements and direct cleanup funding for communities. In addition, the EPA will provide technical assistance through Targeted Brownfield Assessments, cooperative agreements, interagency agreements, and/or contracts to support area wide planning activities, as well as to support assessment, RLF and cleanup grant recipients. The agency plans to focus its efforts on strengthening an integrated approach to communities and tribes to further on-the ground implementation and coordination activities, enhance the program design, build new tools, and leverage work of other partners. Due to the nature of the AWP projects, these agreements require significant staff resources.

In addition to supporting the operations and management of the Brownfields program, funds in FY 2016 will provide financial assistance for training on hazardous waste to organizations representing the interests of state and Tribal co-implementers of the Small Business Liability Relief and Brownfields Revitalization Act (SBLRBRA), otherwise known as the 2002 Brownfields Amendments. The program also offers outreach support for the agency's theme of promoting environmental justice issues affecting Tribal and native Alaskan Villages or other

⁵⁴ Included within this funding is maintaining the agency's relationship with the National Older Worker Career Center, an important source of short-term technical expertise. On average, the EPA awards approximately 275 grants a year (ranging from \$65 to \$705 million total) and provides supplemental funding to another 30-40 high performing RLFs (ranging from \$10 to \$15 million total).

disadvantaged communities facing perceived or real hazardous substance contamination at sites in their neighborhood or community.

In FY 2016, the EPA will continue to work with other programs through an intra-agency workgroup to carry out environmental educational activities through enhancing educational resources and disseminating information about the Brownfields program including environmental justice and brownfields redevelopment and cleanup. Other outreach activities include community training through issuance of grants, innovative awards, and collaboration with national environmental organizations.

In FY 2016, the EPA's Brownfields program will address critical issues for brownfields redevelopment, including land assembly, development permitting issues, financing, parking and street standards, accountability to uniform systems of information of land use controls, and other factors that influence economic viability of brownfields redevelopment and support their sustainable reuse. The best practices, tools, and lessons learned from the smart growth program will directly inform and assist the EPA's efforts to increase area-wide planning for assessment, cleanup, and redevelopment of brownfields sites.

In FY 2016, the EPA's Brownfields enforcement program will continue to work collaboratively with our partners at the state and local level on innovative approaches to help achieve the agency's land reuse priorities. It also will continue to develop guidance and tools to provide greater certainty and comfort regarding potential liability concerns for parties seeking to reuse these properties.

The next biennial National Brownfields Training Conference, last held in FY 2015, is planned for FY 2017.

Performance Targets:

Work under this program supports performance results in the State and Tribal Assistance Grants: Brownfields Projects and can be found in the Eight-Year Performance Array.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,969.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$2,037.0 / -1.7 FTE) This net program change increases resources for the AWP cooperative agreements. Resources also will be used to support brownfields cooperative agreements to ease the workload of grants officers in the Regional Offices. The FTE reduction will decrease the agency's ability to provide guidance to communities regarding potential liability concerns for parties seeking reuse of brownfield properties.

Statutory Authority:

Comprehensive Environmental Response, Compensation and Liability Act , as amended by the Small Business Liability Relief and Brownfields Revitalization Act, 42 U.S.C. 9601 et seq. – Sections 101, 107 and 128 and the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq. – Section 8001.

Program Area: Compliance

Compliance Monitoring

Program Area: Compliance

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inland Oil Spill Programs	\$143.9	\$139.0	\$155.0	\$16.0
<i>Environmental Program & Management</i>	<i>\$101,883.5</i>	<i>\$101,665.0</i>	<i>\$122,424.0</i>	<i>\$20,759.0</i>
Hazardous Substance Superfund	\$1,014.9	\$995.0	\$1,067.0	\$72.0
Total Budget Authority / Obligations	\$103,042.3	\$102,799.0	\$123,646.0	\$20,847.0
Total Workyears	533.9	536.6	539.6	3.0

Program Project Description:

The Compliance Monitoring program's goal is to promote compliance with the nation's environmental laws and protect human health and the environment through inspections and other compliance monitoring activities. Compliance monitoring is comprised of activities that determine whether regulated entities are in compliance with applicable laws, regulations, permit conditions, and settlement agreements. In addition, compliance monitoring activities are conducted to determine whether conditions exist that may present imminent and substantial endangerment to human health and the environment. Compliance monitoring activities include data collection, analysis, data quality review, on and off site compliance inspections/evaluations, investigations, and reviews of facility records and monitoring reports.⁵⁵

The program's efforts complement state and Tribal programs to ensure compliance with laws throughout the United States. The EPA coordinates, supports, and oversees the performance of states, local agencies, territories, and Tribal governments that conduct compliance monitoring activities. The program also provides technical assistance and training to federal, state, territorial and Tribal inspectors. The EPA works with states and tribes to identify where these monitoring, inspection, evaluation, and investigation activities will have the greatest impact on achieving environmental results.

FY 2016 Activities and Performance Plan:

The EPA has achieved impressive pollution control and health benefits through vigorous compliance monitoring and enforcement, but traditional enforcement methods will not address all non-compliance problems. The sheer number of regulated facilities, the pollution from large numbers of smaller sources, and limited resources means that the traditional single facility inspection and enforcement approach cannot be relied on solely as our only way to achieve widespread compliance with the nation's environmental laws. As a result, the agency needs to

⁵⁵ For more information, refer to <http://www.epa.gov/compliance/monitoring/index.html>.

adapt to the modern era by developing and implementing new methods that rely heavily on advances in both monitoring and information technology.

Recognizing that traditional enforcement approaches will not be sufficient to address noncompliance problems, the EPA continues to focus efforts on moving to the “next generation” of compliance. This approach, called Next Generation Compliance, has been formalized in the agency’s FY 2014-2018 Strategic Plan. Next Generation Compliance aims to increase compliance with environmental regulations by capitalizing on advances in information technology and advanced pollutant detection technology. These advanced technologies, combined with a focus on designing rules and permits that are easier to implement, will improve compliance, expand transparency, and protect communities while reducing costs for the Federal government, states, territories, tribes and regulated facilities.⁵⁶ There are five main components to this initiative: 1) structuring our regulations to be easier to implement and achieve higher compliance; 2) using advanced pollutant detection technology to find out about pollution as it happens in real-time; 3) moving from paper to electronic reporting to enhance government efficiency and reduce paperwork burden; 4) making pollution and compliance information more accessible, user-friendly, and available to the public to promote accountability; and 5) using innovative approaches to enforcement to focus limited resources on the biggest pollution problems. As one example of this approach, in FY 2014, the agency conducted a state solicitation of interest to determine if states and local agencies would be interested in obtaining advanced monitoring equipment including infrared (IR) cameras and Village Green air monitoring stations. The equipment would be used to identify organic gas emissions from equipment, such as valves, flanges and tanks, thus improving the states’ ability to ensure compliance and protect communities. By the end of January 2015, the agency has provided 5 IR cameras to the states and local agencies.

Next Generation Compliance complements E-Enterprise for the Environment, a 21st-century strategy— jointly governed by states and the EPA – to modernize government agencies’ delivery of environmental protection in the United States. The E-Enterprise business strategy is an integral part of an agencywide effort to launch a new era of state, local, Tribal, and international partnerships. Under this strategy, the agency will streamline its business processes and systems to reduce reporting burden on states and regulated facilities, and improve the effectiveness and efficiency of regulatory programs for the EPA, states and tribes.

On-going compliance monitoring projects that are aligned with E-Enterprise principles include: 1) developing a field collection, evidence management, and reporting system for conducting compliance monitoring inspections; 2) partnering with states to develop and implement electronic reporting tools for the National Pollutant Discharge Elimination System (NPDES) information; 3) supporting NPDES e-reporting rule development; 4) purchasing advanced monitoring equipment; and 5) supporting transparency through modernization of the Enforcement and Compliance History Online (ECHO) and the Air Facility System (AFS).

⁵⁶ For more information, please see September/October 2013 article in the Environmental Forum on Next Generation Compliance. <http://www.eli.org/pdf/forum/30-5/30-5nextgenerationcompliance.pdf>.

The program will continue its efforts to leverage technology and modernize business processes internally and in how we interact with our partners, the regulated community and the public. These efforts are anticipated to result in savings to the regulated community (e.g., electronic reporting), and also streamline internal EPA processes (e.g., mobile business solutions for field inspectors). In FY 2016, resources will support the following areas:

Expand Full Electronic Interaction. The agency will move forward with efforts to streamline key paper reporting regulations by converting to an electronic format. Replacing paper based reporting will decrease unnecessary paperwork burdens on industry and also improve the efficiency of the EPA and state partners. In July 2013, the EPA proposed a new rule to convert the NPDES paper based reporting systems to a more effective and efficient electronic based system. In FY 2014, under the E-Enterprise business strategy,⁵⁷ the NPDES E-Reporting Fillable forms shared services laid the groundwork for piloting the Florida Department of Environmental Protection's Small Municipal Separate Storm Sewer System (MS4) General Permit. Support also was provided in FY 2014 for the E-Reporting Discharge Monitoring Reports (DMRs) for NPDES permits, which was instrumental in the EPA's ability to enhance the NPDES E-DMR tool to build out functionality (e.g., increased capacity) needed to support the implementation of the NPDES Electronic Reporting Rule.⁵⁸ These approaches and tools allow the public to be better informed about the regulated environmental activities in their communities and the compliance of the facilities undertaking these activities. The EPA expects to issue the final rule in 2015 with implementation beginning in FY 2016. The EPA also is developing an exporter interface to enable exporters of hazardous waste to submit notification data electronically to the EPA, in order to avoid the expense and errors associated with manual entry and to facilitate more accurate and effective compliance monitoring.

The agency will continue to modernize its internet-accessible, national enforcement and compliance data system, the Integrated Compliance Information System (ICIS), which supports both compliance monitoring and civil enforcement. Completion of ICIS's three phases of development is targeted for FY 2017. Release 1 of ICIS Phase III, ICIS-Air, was deployed in October 2014. At that time, the AFS legacy mainframe system was placed in the read only accessible mode and decommissioned in December 2014. Future releases of ICIS-Air are planned to be implemented in FY 2015, FY 2016 and FY 2017 to provide new functionality consistent with the agency's Next Generation Compliance and E-Enterprise principles (e.g., electronic reporting). ICIS modernization advances the EPA's integration of environmental compliance and enforcement information into one system, with major components including federal enforcement and compliance information and data from the NPDES program and Clean Air Act stationary sources.

The EPA will focus on enhancing its data systems to support full electronic interaction with regulated facilities via fillable forms, providing more comprehensive and accessible data to the public through the interactive public web site Enforcement and Compliance History Online (ECHO),⁵⁹ and allowing for improved integration of environmental information with health data

⁵⁷ For more information, visit: <http://docs.house.gov/meetings/IF/IF18/20140723/102531/HHRG-113-IF18-20140723-SD003.pdf>.

⁵⁸ For more information, visit: <http://www.regulations.gov/#!documentDetail:D=EPA-HQ-OECA-2009-0274-0211>.

⁵⁹ For more information, visit: <http://www.epa-echo.gov/echo/>.

and other pertinent data sources from other federal agencies and private sources. The EPA will continue to develop additional tools and obtain new data sets (e.g., geospatial) for public use, allowing communities to stay informed and proactively address environmental challenges.

In the last two years, the EPA has developed State Performance Dashboards and Comparative Maps that provide the public with information about the performance of state and the EPA enforcement and compliance programs across the country. The ECHO website was modernized to improve system efficiency while providing a more up-to-date, easy-to-use interface for the public. ECHO and its powerful companion tool for regulators, ECHO Gov, provide the public and more than 200 government entities with information on facility compliance, pollutant releases, and environmental quality, averaging more than 150,000 page views per month. In FY 2016, ECHO modernization is expected to be completed and additional enforcement and compliance media (e.g., Safe Drinking Water Act) specific performance dashboards will be developed, increasing public transparency.

Design Regulations to Improve Compliance. The program will continue its research and training on principles and tools for how to develop more effective rules and permits. As part of the process of developing new rules, the EPA is integrating Next Generation Compliance principles and tools to create regulations that are more effective and efficient. This includes approaches such as self-monitoring and/or self-certification, third party certification, and transparency to promote public accountability. Next Generation Compliance focuses on structuring regulations to be easier to understand and implement, resulting in higher compliance.

Test and Pilot Advanced Monitoring Technologies. The EPA will develop remote water monitoring sensors and air loadings tools to collect emissions and discharge data and will use these technologies in the EPA's enforcement settlements. The agency expects that these technologies will improve its analysis and targeting capabilities and enhance the public's knowledge about the quality of their environment. The Compliance program will participate in developing and implementing a new program to test, validate and provide communities with advanced monitoring equipment.

Implement Mobile Business Solutions for Field Inspectors. The EPA will expand software solutions for field inspectors to allow them to transfer data from the field into the agency's data systems. The EPA plans to implement a software solution for RCRA Subtitle C, which manages hazardous wastes from cradle to grave (e.g., generation; transportation; and treatment, storage or disposal) by the end of 2015, and to develop software for the Clean Water Act and the Clean Air Act in FY 2016–2017. The Compliance program will work with the states in evaluating whether these software tools can be leveraged by the states, thus improving the effectiveness of state compliance monitoring programs and saving states the cost of developing these tools themselves.

The EPA establishes National Enforcement Initiatives every three years to address the most serious pollution problems affecting communities.⁶⁰ The initiatives focus on industry sectors or sources of pollution that the EPA believes can best be addressed by a national enforcement approach, and employ traditional enforcement approaches in conjunction with innovative

⁶⁰ For more information on the EPA's National Enforcement Initiatives, please visit: <http://www2.epa.gov/enforcement/national-enforcement-initiatives>.

evidence-based approaches. In FY 2014, the National Enforcement Initiative for cutting hazardous air pollutants resulted in reductions of an estimated 6.7 million pounds of air toxics, pollutants that are known or suspected to cause cancer, birth defects, and seriously impact the environment.

To ensure the quality of compliance monitoring activities, the EPA is continuing to develop national policies, update inspection manuals, provide required training for inspectors, and issue inspector credentials. The EPA’s National Enforcement Training Institute (NETI) will continue to conduct training to ensure the inspectors/investigators are: knowledgeable of environmental requirements and policies; technically proficient in conducting compliance inspections/evaluations and taking samples; and skilled at interviewing potential witnesses and documenting inspection/evaluation results. The EPA will continue developing web-based environmental enforcement training courses that feature current e-learning techniques. These e-learning courses will provide continual access to training for federal, state, local, territorial and Tribal environmental enforcement personnel, while reducing training and related travel costs.

The EPA will continue to review all notices for trans-boundary movement of hazardous waste and for export of Cathode Ray Tubes and Spent Lead Acid Batteries to ensure compliance with domestic regulations and international agreements. The agency ensures that these wastes are properly handled in accordance with international agreements and Resource Conservation and Recovery Act regulations.⁶¹ The EPA utilizes electronic data exchange on a government-to-government basis with Environment Canada and with the Mexican environmental agency, SEMARNAT, to assure more timely and accurate transmission of notice information for compliance monitoring purposes. While the vast majority of the hazardous waste trade occurs with Canada,⁶² the United States also has international hazardous waste trade agreements with Mexico, Malaysia, Costa Rica, and the Philippines. Furthermore, the United States is a member of the Organization for Economic Cooperation and Development, which issued a Council Decision controlling trans-boundary movements of hazardous waste among member countries. In FY 2014, the EPA responded to 3,246 notices representing 731 import notices and 2,515 export notices.

Performance Targets:

Measure	(409) Number of federal inspections and evaluations.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				19,000	17,000	17,000	15,500	15,500	Inspections/ Evaluations
Actual				20,000	18,000	16,000			

Measure	(412) Percentage of open consent decrees reviewed for overall compliance status.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				100	100	100	100	100	Percent
Actual				91	91	100			

⁶¹ For more information about the Import/Export program, refer to: www.epa.gov/compliance/international/importexport.html.

⁶² For more information, visit: <http://www.epa.gov/osw/hazard/international/imp-exp.htm>.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$3,394.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$7,170.0) This program change reflects an increase in funding for activities under the agency's E-Enterprise business strategy which streamlines the agency's business processes and systems to reduce reporting burden on states and regulated facilities, and improves the effectiveness and efficiency of regulatory programs for the EPA, states and tribes. This increase will support a variety of projects, including:
 - (+\$200.0) Partnering with states to develop and implement fillable e-forms for electronically reporting NPDES information. The agency will pilot the EPA's e-reporting tools for the NPDES e-Reporting rule with states (e.g., Florida). This effort will demonstrate how states can utilize the EPA's e-reporting tools for implementing the rule versus developing their own. This will save states a significant amount of resources.
 - (+\$1,120.0) Supporting NPDES e-reporting rule development (NetDMR). This funding supports the needed enhancements for the EPA's e-reporting tool for DMRs (NetDMR) in support of the implementation of the NPDES e-reporting rule.
 - (+\$1,500.0) Supporting NPDES e-reporting rule development (General permits and NeT). This funding supports the needed enhancements for the EPA's e-reporting tool for NPDES general permits and program reports (NeT) in support of the implementation of the NPDES e-reporting rule.
 - (+\$1,750.0) Developing advanced monitoring strategy that addresses increasing availability of sensor data, advanced monitoring and analysis technology. This funding will provide \$750.0 to develop an advanced monitoring strategy that addresses increasing availability of sensor data, advanced monitoring and analysis technology, and environmental results based on citizen science. In addition, \$1,000.0 will be used to develop a field collection, evidence management, and reporting system for all programmatic compliance monitoring inspections.
 - (+\$2,600.0) Supporting transparency through modernization of Enforcement and Compliance History Online (ECHO) and the Air Facility System (AFS). This funding will provide \$1,750.0 for AFS Modernization which is needed to complete enhancements and critical fixes from Phase I of the modernization effort. This will position ICIS-Air to move to the next phase of modernization focused on re-reporting for the CAA stationary source program. Also, this funding will provide \$550.0 for enhancing public transparency, data analytics and targeting for states and the EPA which is especially needed with the modernization of AFS and implementation of e-reporting. Finally, \$300.0 of this funding will facilitate the integration of ECHO (data and tools) within the E-Enterprise portal.

- (+\$5,075.0 / +4.0 FTE) This program change reflects the agency's efforts to improve the quality and efficiency of compliance inspections in the field. These resources will be used to develop software for the Clean Air Act Title V program and the Clean Water Act NPDES program to help inspectors gather and analyze data to prepare for and record inspections. States that have adopted similar strategies have been able to standardize how inspections are conducted, improve transparency, streamline report writing, improve staff efficiency, and reduce state program costs.
- (+\$1,806.0 / +7.0 FTE) This program change increases the integration of advanced monitoring equipment by addressing the cross-media legal, policy, and programmatic issues associated with a regional, state and community equipment loan program, such as ensuring advanced monitoring equipment is of sufficient quality for its intended purpose.
- (+\$3,314.0 / -8.0 FTE) This program change reflects the agency's efforts to address its highest priority needs, resulting in a modest reduction in FTE for field inspections. The increased funding is required to ensure basic and essential support to the inspection workforce. Funding will enable inspectors to carry out inspections efficiently through technology and data to better detect violations and provide the infrastructure necessary to support a comprehensive monitoring program. The support includes funding for laboratory analysis, data systems, and mandatory inspector training. Over the past five years, the agency has conducted nearly 100,000 inspections and evaluations at regulated facilities.

Statutory Authority:

Resource Conservation and Recovery Act; Clean Water Act; Safe Drinking Water Act; Clean Air Act; Toxic Substances Control Act; Emergency Planning and Community Right-To-Know Act; Residential Lead-Based Paint Hazard Reduction Act; Federal Insecticide, Fungicide, and Rodenticide Act; National Environmental Policy Act; North American Agreement on Environmental Cooperation; La Paz Agreement on US-Mexico Border Region.

Program Area: Enforcement

Civil Enforcement

Program Area: Enforcement

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inland Oil Spill Programs	\$2,396.9	\$2,413.0	\$2,424.0	\$11.0
<i>Environmental Program & Management</i>	<i>\$173,835.8</i>	<i>\$170,854.0</i>	<i>\$185,756.0</i>	<i>\$14,902.0</i>
Leaking Underground Storage Tanks	\$642.4	\$620.0	\$627.0	\$7.0
Total Budget Authority / Obligations	\$176,875.1	\$173,887.0	\$188,807.0	\$14,920.0
Total Workyears	1,096.6	1,083.1	1,082.4	-0.7

Program Project Description:

The EPA's Civil Enforcement program's goal is to assure compliance with the nation's environmental laws to protect human health and the environment. Effective enforcement is essential to deter violations and to promote compliance with federal environmental statutes and regulations. The Civil Enforcement program focuses on violations that threaten communities, maintaining a level economic playing field by ensuring that violators do not realize an economic benefit from noncompliance, and deterring future violations. The Civil Enforcement program develops, litigates, and settles administrative and civil judicial cases against serious violators of environmental laws.

The program collaborates with the United States Department of Justice, states, local agencies, and Tribal governments to ensure consistent and fair enforcement of all environmental laws and regulations. The Civil Enforcement program also provides oversight of authorized state and local agency performance to ensure that national environmental laws are enforced in a consistent, equitable manner that protects public health and the environment. The EPA also works directly with Tribal governments to build their capacity to implement environmental enforcement programs.

The EPA's National Enforcement and Compliance Assurance program is responsible for maximizing compliance with 12 major environmental statutes, 28 distinct programs under those statutes, and numerous regulatory requirements under those programs which apply in various combinations to a universe of approximately 40 million regulated federal and private entities. As a means for focusing its efforts, the enforcement program identifies, in three year cycles, serious noncompliance patterns as National Enforcement Initiatives. The enforcement program reviews data and coordinates the selection of these initiatives with programs and regional offices within the EPA, and with states, local agencies and tribes, in addition to soliciting public comment. In

FY 2013, the EPA determined that significant work remained in the current National Enforcement Initiatives, and will retain the current initiatives through FY 2016.⁶³

FY 2016 Activities and Performance Plan:

It is critically important that the EPA continually assess priorities and embrace new approaches that can help achieve the agency's goals more efficiently and effectively. The EPA's FY 2016 budget request for the Enforcement and Compliance Assurance program continues to invest resources in high priority areas with the greatest impact on public health, while reducing resources where we have made significant progress (and therefore no longer require as active an enforcement presence), or that, while important, do not address the most substantial impacts to human health. The EPA will continue to examine areas most appropriate for reduction while implementing new enforcement approaches to make the program more efficient and effective.

In FY 2016, the EPA will continue targeting enforcement resources through its efforts in the core program and national initiatives that demonstrate results. For example, in 2014, the EPA achieved estimated reduction commitments totaling 515 million pounds of pollution and commitments to treat, minimize, or properly dispose of 711 million pounds of hazardous waste from enforcement cases. The EPA enforcement actions required companies to invest an estimated \$9.7 billion in actions and equipment to control pollution (injunctive relief) in FY 2014. The EPA also obtained a total of \$100 million in federal administrative and civil judicial penalties in FY 2014. The program will continue to leverage its resources by seeking environmental improvements beyond direct penalties in enforcement cases.

The EPA has achieved impressive pollution control and health benefits through vigorous compliance monitoring and enforcement, but traditional enforcement methods alone will not address all noncompliance problems. The sheer number of regulated facilities, the pollution from large numbers of smaller sources, and limited resources means that the traditional single facility inspection and enforcement approach cannot be relied on as our only way to achieve widespread compliance with the nation's environmental laws. As a result, the agency needs to continue adapting to the modern era by developing and implementing new methods that rely heavily on advances in both monitoring and information technology.

Next Generation Compliance

Recognizing that traditional enforcement approaches will not be sufficient to address noncompliance problems, the EPA continues to focus efforts on moving to the "next generation" of compliance. Next Generation Compliance aims to capitalize on advances in information technology and advanced pollutant monitoring technology, combined with a focus on designing rules and permits that are easier to implement, to improve compliance, expand transparency, and protect communities while reducing costs for the Federal government, states, territories, tribes and regulated facilities. There are five main components to this initiative: 1) structuring our regulations to be easier to implement and achieve higher compliance; 2) using advanced pollutant detection technology to find out about pollution as it happens in real-time; 3) moving

⁶³ For more information on the National Enforcement Initiatives, visit: <http://www2.epa.gov/enforcement/national-enforcement-initiatives>.

from paper to electronic reporting to enhance government efficiency and reduce paperwork burden; 4) making pollution and compliance information more accessible, user-friendly, and available to the public to promote accountability; and 5) using innovative approaches to enforcement to focus limited resources on the biggest pollution problems.⁶⁴

Next Generation Compliance complements the agency's E-Enterprise for the Environment, a 21st-century strategy – jointly governed by states and EPA – to modernize government agencies' delivery of environmental protection in the United States. The wider E-Enterprise business strategy will result in reduced reporting burden on states and regulated facilities, and improve the effectiveness and efficiency of regulatory programs for the EPA, states and tribes. E-Enterprise has an FY 2015 agency Priority Goal of reducing regulatory burden by one million hours by September 2015. Next Generation Compliance activities will contribute to that and future burden reduction goals. For example, when complete, the NPDES Electronic Reporting rule (discussed in details below) is estimated to reduce burden by approximately 900 thousand hours.⁶⁵

Next Generation Compliance has also been incorporated into the EPA's national effort to advance environmental justice by protecting communities that have been disproportionately impacted by pollution. For example, in *U.S. v. Flint Hills Resources Port Arthur, LLC*. Flint Hills Resources agreed to implement innovative technologies to control harmful air pollution from industrial flares and leaking equipment at the company's chemical plant in Port Arthur, Texas. The company is required to pay a \$350,000 penalty for Clean Air Act violations, to operate a system to monitor fence-line concentrations of benzene and 1, 3 butadiene (the two hazardous air pollutants generated by the facility) and to make the data available to the public every week. The neighboring community will have much cleaner air and real time data will demonstrate the company's continued attention to maintaining these improvements.

Federal Facility Oversight

The Civil Enforcement program includes the regulation of Federal facility sites. The Federal Facilities Enforcement program will continue to expeditiously pursue enforcement actions at Federal facilities where significant violations are discovered, with a specific focus on noncompliance with storm water, RCRA waste requirements, vulnerable populations and other priority areas. The EPA will continue its partnership in *FedCenter*,⁶⁶ the federal facility environmental stewardship and compliance assistance center co-sponsored and voluntarily funded by more than a dozen federal agencies.

National Enforcement Initiatives

In FY 2016, the agency will continue to focus on complex and challenging national pollution problems. Current national initiatives include Clean Water Act "wet weather" pollutant discharges, violations of the Clean Air Act New Source Review/Prevention of Significant Deterioration (NSR/PSD) requirements and Air Toxics regulations, Resource Conservation and

⁶⁴ For more information, see: <http://www2.epa.gov/compliance/next-generation-compliance-memorandum-next-gen-civil-enforcement-settlements>.

⁶⁵ For more information, see "Economic Analysis of the National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Proposed Rule" [DCN 0040] at <http://www.regulations.gov/#!documentDetail:D=EPA-HQ-OECA-2009-0274-0135>.

⁶⁶ For more information, visit: <http://www.fedcenter.gov/>.

Recovery Act (RCRA) violations at mineral processing facilities, and ensuring protective energy extraction. Information on initiatives, regulatory requirements, enforcement alerts, and results from civil enforcement activities are made available to the public and the regulated community on the EPA's web sites.⁶⁷

The EPA's Clean Water program will continue to work with states, tribes, and communities to improve our nation's impaired waters. Towards that end, the EPA, working with permitting authorities, is revamping compliance and enforcement approaches to make progress on the most important water pollution problems. This work includes getting raw sewage out of water, cutting pollution from animal waste, and reducing pollution from storm water runoff. Between FY 1998 and 2014, 92 percent of the largest cities with Combined Sewer Overflows were on a schedule to clean up their water and achieve compliance.⁶⁸ These efforts will help to clean up great waters like the Chesapeake Bay and will focus on revitalizing urban communities by protecting and restoring urban waters. The recent settlement in *U.S. v. City of Lima, Ohio* for example, will directly benefit residents of that community by reducing the exposure of low income and minority populations to uncontrolled raw sewage and stormwater runoff into the Ottawa River. Enforcement also will support the goal of assuring clean drinking water for all communities, including those served by small systems and in Indian country.

New Source Review (NSR) violations at large sources (power plants, cement kilns, glass furnaces and acid plants) as well as illegal emissions of air toxics will continue to be a major focus of the EPA's enforcement efforts. The large sources in violation of the NSR provisions of the Clean Air Act are responsible for many thousands of tons of excess criteria pollutant emissions (SO₂, NO_x and particulate matter) each year. Installation of the controls required under NSR typically reduces criteria pollutant emissions by over 90 percent. Improperly operated flares, leaking production facilities, and certain operational practices or events at industrial facilities may result in substantial releases into the air of hazardous air pollutants and other compounds of concern. In FY 2016, the EPA will continue to reduce illegal emissions of toxic air pollutants from these sources through targeted investigations involving on-site inspections, record reviews, and sophisticated monitoring and detection devices such as thermal imaging cameras, hand-held detection devices, mobile real-time monitoring equipment and other tools. The EPA will continue to coordinate its investigations and enforcement actions with state and Tribal partners. Due to these efforts, between FY 2011 and FY 2014, 1,789 air toxics emitting facilities were evaluated and between FY 1999 and FY 2014,⁶⁹ 54 percent of coal fired units were controlled.⁷⁰ In one example, the *Minnesota Power* settlement will not only mean cleaner air for the residents of the Duluth area, but also includes projects that will benefit local communities (e.g., large-scale solar installation system to benefit the local Fond du Lac Band tribe, and upgrades for wood burning appliances, among other community-based work).

⁶⁷ For more information, visit: <http://www.epa.gov/enforcement/>.

⁶⁸ For more information, visit: <http://www2.epa.gov/enforcement/national-enforcement-initiative-keeping-raw-sewage-and-contaminated-stormwater-out-our>.

⁶⁹ For more information, visit: <http://www2.epa.gov/enforcement/national-enforcement-initiative-cutting-hazardous-air-pollutants>.

⁷⁰ For more information, visit: <http://www2.epa.gov/enforcement/national-enforcement-initiative-reducing-air-pollution-largest-sources>.

The EPA remains committed to enforcement of the nation's pesticides, waste, and chemical safety laws. For example, an action against DuPont involving a mis-branded pesticide that was killing trees where it was applied, including residential and commercial lawns, golf courses, sod farms, schools, parks, and athletic fields, will have wide-ranging benefits. The EPA also continues to focus on compliance with waste management and disposal requirements at mining and mineral processing facilities. This sector produces more waste than any other sector in the country and, to date, the EPA's compliance monitoring and enforcement efforts have led to the elimination, treatment, and proper disposal of over 20 billion pounds of hazardous waste. Between FY 2003 and FY 2014, 59 percent of mineral processors were inspected and 34 percent were on an enforceable schedule to comply.⁷¹

The nation's food supply is protected by vigorous enforcement of the regulations for the manufacture and use of all pesticides (including insecticides, herbicides, rodenticides, disinfectants, and sanitizers) in the United States. Enforcement also aims to prevent or reduce exposures to vulnerable populations from toxic substances (e.g., lead-based paint in residential housing) and from releases or explosions at chemical facilities. The FY 2014 settlement with Lowe's Home Centers, one of the nation's largest home improvement retailers, reduces exposure to lead paint. This will directly protect residents, particularly children, in homes built before 1978, as well as any child-occupied facilities, such as day-care centers and pre-schools, from exposure to lead paint and dust from renovation work through a comprehensive nationwide contractor certification program.

Information Systems

In FY 2016, reliable information on compliance and program performance remains critical. The EPA's Civil Enforcement program relies on the Integrated Compliance Information System (ICIS) to manage federal compliance and enforcement activities by tracking the status of all civil judicial and administrative enforcement actions, as well as compliance and enforcement results. The EPA will continue to make information on its enforcement work more publically accessible and transparent on its Enforcement and Compliance History Online (ECHO) interactive web site and obtain new data sets (e.g., geospatial) for public use.

The NPDES Electronic Reporting Rule proposed in July 2013 will have significant benefits to the public, regulated facilities, states, and the EPA.⁷² One of the benefits of this proposed rulemaking is that it would provide high quality, complete, and timely data for the National Pollutant Discharge Elimination System (NPDES) program. With the final rule expected to be issued in FY 2015 and implementation beginning in FY 2016, NPDES-authorized programs in states, tribes, territories, and the EPA should be able to shift their limited resources from data management activities to those more targeted to solving water quality issues. The EPA has developed NetDMR, the electronic reporting tool for reporting Discharge Monitoring Reports, to support implementation of the proposed rule. Also, the EPA is developing the NPDES Electronic Reporting Tool (NeT) to support the remaining data flows that will be required by the proposed

⁷¹ For more information, visit: <http://www2.epa.gov/enforcement/national-enforcement-initiative-reducing-pollution-mineral-processing-operations>.

⁷² For more information, see 78 Fed. Reg. 46006 (July 30, 2013) or visit: <http://www.regulations.gov/#!documentDetail:D=EPA-HQ-OECA-2009-0274-0097>.

rule (e.g., Notices of Intent to be covered under a general permit). Both of these tools will be available for states to use to support the implementation of the proposed rule; many states are already using NetDMR.

Environmental Justice

The Civil Enforcement program also supports the Environmental Justice program by taking actions in communities that may be disproportionately exposed to risks and harm from environmental contaminants, including minority and/or low-income areas. In FY 2014, 36 percent of the enforcement cases initiated by the EPA addressed violations that had occurred in locations with potential environmental justice concerns,⁷³ and many additional cases located outside the community will reduce pollution that will benefit those communities. The EPA works to protect these and other burdened communities from adverse human health and environmental effects through programs consistent with environmental and civil rights laws.⁷⁴

Performance Targets:

Measure	(400) Millions of pounds of air pollutants reduced, treated, or eliminated through concluded enforcement actions.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target		480	480	480	450	350	310	310	Million Pounds
Actual		410	1,100	250	610	140			

Measure	(402) Millions of pounds of water pollutants reduced, treated, or eliminated through concluded enforcement actions.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target		320	320	320	320	280	250	250	Million Pounds
Actual		1,000	740	500	660	340			

Measure	(404) Millions of pounds of toxic and pesticide pollutants reduced, treated, or eliminated through concluded enforcement actions.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target		3.8	3.8	3.8	3.0	2.5	2.3	2.3	Million Pounds
Actual		8.3	6.1	1,400	4.6	41			

Measure	(405) Millions of pounds of hazardous waste reduced, treated, or eliminated through concluded enforcement actions.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target		6,500	6,500	6,500	6,000	5,000	2,400	2,400	Million Pounds
Actual		11,800	3,600	4,400	150	700			

⁷³ This includes all enforcement cases initiated by EPA in FY 2014 that had a meaningful location for undertaking an environmental justice analysis.

⁷⁴ For more information on FY 2014 enforcement results, visit: <http://www2.epa.gov/enforcement/enforcement-annual-results-fiscal-year-fy-2014>.

Measure	(410) Number of civil judicial and administrative enforcement cases initiated.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				3,300	3,200	3,200	2,700	2,700	Cases
Actual				3,000	2,400	2,300			
Measure	(411) Number of civil judicial and administrative enforcement cases concluded.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				3,200	3,000	2,800	2,400	2,400	Cases
Actual				3,000	2,500	2,300			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$5,950.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$7,552.0 / -0.7 FTE) The net program change includes resources that will support technical analyses of complex data to support cases and work to oversee compliance with settlement agreements so that existing staff can be more efficient and effective. Resources will also support core elements of a viable civil enforcement program including expert witnesses, management of the program’s discovery responsibilities in legal proceedings, and lab analyses. Over the past five years, through enforcement actions, companies have committed to invest nearly \$60 billion to control pollution. The reduced FTE will have a modest impact on case development and on-site investigations.
- (+\$1,400.0) This program change will support the use of Next Generation Compliance tools in enforcement case settlements. These tools include advanced monitoring, electronic reporting, third party verification, and increased transparency of compliance data and designing more effective regulations and permits to reduce pollution.

Statutory Authority:

Resource Conservation and Recovery Act; Clean Water Act; Safe Drinking Water Act; Clean Air Act; Toxic Substances Control Act; Emergency Planning and Community Right-To-Know Act; Residential Lead-Based Paint Hazard Reduction Act; Federal Insecticide, Fungicide, and Rodenticide Act; North American Agreement on Environmental Cooperation; La Paz Agreement on US/Mexico Border Region; National Environmental Policy Act; Small Business Liability Relief and Brownfields Revitalization and Environmental Restoration Act; Community Environmental Response Facilitation Act; Atomic Energy Act; Uranium Mill Tailings Radiation Control Act; Energy Policy Act.

Criminal Enforcement

Program Area: Enforcement

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$48,136.0</i>	<i>\$46,745.0</i>	<i>\$51,917.0</i>	<i>\$5,172.0</i>
Hazardous Substance Superfund	\$7,430.4	\$7,243.0	\$7,643.0	\$400.0
Total Budget Authority / Obligations	\$55,566.4	\$53,988.0	\$59,560.0	\$5,572.0
Total Workyears	267.2	268.9	266.9	-2.0

Program Project Description:

The EPA's Criminal Enforcement program enforces the nation's environmental laws through targeted investigation of criminal conduct, committed by individual and corporate defendants, that threatens public health and the environment. A strong enforcement program is a key component of an effective, results-focused environmental compliance strategy. Successful, visible prosecutions deter other potential violators, eliminate the incentive for companies to "pay to pollute," and help ensure that businesses that follow the rules do not face unfair competition from those that break the rules. Criminal enforcement also sends a strong deterrence message to businesses operating in economically disadvantaged communities and traditionally industrial areas, where residents may have suffered disproportionate pollution impacts, in part due to criminal activities.

The EPA's criminal enforcement agents (Special Agents) investigate violations of environmental statutes and associated violations of Title 18 of the United States Code such as fraud, conspiracy, false statements, and obstruction of justice. Special Agents provide prosecutorial support, evaluate leads, interview witnesses, serve and support search warrants, and review documentary evidence including data from prior inspections and enforcement actions. They are assisted by forensic scientists, attorneys, technicians, engineers, and other experts. Special Agents assist in plea negotiations, and in planning sentencing conditions that require remediation, environmental management systems, or other projects that improve environmental conditions.⁷⁵

The EPA's Special Agents also participate in state and local task forces and attend specialized training courses at the Federal Law Enforcement Training Center along with other federal, state, and local law officials. Along with other joint efforts, these events offer valuable opportunities to exchange information that can inform future efforts.⁷⁶

⁷⁵ For more information on the EPA's Special Agents, visit: <http://www2.epa.gov/enforcement/criminal-enforcement-special-agents>.

⁷⁶ <http://www.epa.gov/enforcement/criminal/>.

The EPA's criminal enforcement attorneys provide legal and policy support for all of the program's responsibilities, including forensics and expert witness preparation, to ensure that program activities are carried out in accordance with legal requirements and the policies of the agency. These efforts support environmental crime prosecutions primarily by the United States Attorneys and the Department of Justice's Environmental Crimes Section, and occasionally by state, Tribal, and local prosecutors. In FY 2014, the conviction rate for criminal defendants was 95 percent.⁷⁷

FY 2016 Activities and Performance Plan:

Successful prosecutions are the result of careful collection and expert evidence analysis. In FY 2016, the Criminal Enforcement program will continue to emphasize cases with significant human health, environmental, and deterrent impacts, while balancing its overall case load across all pollution statutes. The FY 2016 resources described below will allow the Criminal Enforcement program to continue its critical criminal investigation and enforcement work by maintaining existing personnel and expertise.

The EPA's Criminal Enforcement program is committed to fair and consistent enforcement of federal laws and regulations nation-wide and has the flexibility to respond to region-specific environmental problems. In FY 2016, the Criminal Enforcement program will continue to oversee all investigations to ensure compliance with program priorities, and conduct regular "docket reviews", which are detailed reviews of all open investigations in each Regional Office, in order to ensure consistency with agency guidance and enforcement priorities.

The Criminal Enforcement program continues to "tier" significant cases based upon categories of human health and environmental impacts (e.g., death, serious injury, human exposure, required remediation), release and discharge characteristics (e.g., hazardous or toxic pollutants, continuing violations), and subject characteristics (e.g., national corporation, recidivist violators). In FY 2014, criminal charges were brought against 187 defendants, and criminal defendants were assessed a total of \$79 million in fines, restitutions, and court-ordered projects. Defendants in criminal proceedings were sentenced to 155 years of incarceration, reflecting the agency's focus on the most serious violations.⁷⁸

In FY 2016, the Criminal Enforcement program will continue to realize the benefits of enhanced crime scene investigation support, forensic evidence collection, and improved sampling support for complex criminal enforcement efforts involving highly contaminated crime scenes and major releases to the environment. High-quality forensic data collection and analysis also are key to establishing personal culpability of individual violators, which can lead to sentences that may include incarceration.

In FY 2016, the Criminal Enforcement program will continue to enhance its targeting and investigations strategy through implementation of Analytically Driven Operations (ADOs).

⁷⁷ For more information on FY 2014 enforcement results, visit: <http://www2.epa.gov/enforcement/enforcement-annual-results-analysis-and-trends-fiscal-year-fy-2014>.

⁷⁸ For more information on FY 2014 enforcement results, visit: <http://www2.epa.gov/enforcement/enforcement-annual-results-analysis-and-trends-fiscal-year-FY-2014>.

ADOs are investigations or a cluster of investigations in an area that had been targeted for enhanced criminal enforcement based on analysis of available data related to a specific industry or practice. These industries or practices require data to be reported to various regulatory entities. The data reported may exhibit inconsistent patterns across regulatory entities for the same data set, which may be an indicator of potentially false data or fraudulent activities. ADOs are developed using data from the EPA, other federal agencies, and other sources to reveal those sectors, geographic areas, or individual companies that may have consistent patterns of violations. ADOs enhance the effectiveness of criminal targeting and investigations by identifying fraud and illegal conduct before serious violations occur. Potential criminal violations are investigated by the EPA’s Special Agents, and prepared for potential prosecution where appropriate, using an expanded range of tools, including advanced monitoring equipment and techniques. In addition, analytical tools are incorporated into plans to modernize the program’s case management system, supporting better coordination of cases nationwide and more efficient operations.

Coordinating Civil and Criminal Enforcement Programs

A fully integrated enforcement and compliance strategy is essential for the agency to fulfill its mission to protect human health and the environment. The Criminal Enforcement program continues to enhance its collaboration and coordination with the Civil Enforcement program to ensure that the EPA enforcement program as a whole responds to violations as effectively as possible. The Criminal Enforcement program will work with the Civil Enforcement program to identify National Enforcement Initiative⁷⁹ cases and violations in the EPA’s national priority areas that would most effectively be addressed through criminal prosecution. This coordinated approach is accomplished by employing an effective regional case screening process to identify the most appropriate civil or criminal enforcement responses for a particular violation, and by taking criminal enforcement actions against long-term or repeat significant non-compliers where appropriate.

In FY 2016, the EPA will continue to seek to deter environmental crime by pursuing leads reported by the public as appropriate through the tips and complaints link on the EPA’s website,⁸⁰ and will continue to use the fugitive website.⁸¹ The fugitive website enlists the public and law enforcement agencies to help apprehend defendants who have fled the country, are in hiding to avoid prosecution for alleged environmental crimes, or are in hiding to avoid sentencing for crimes for which they have been found guilty.

Performance Targets:

Measure	(418) Percentage of criminal cases having the most significant health, environmental, and deterrence impacts.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				43	43	43	45	45	Percent
Actual				45	44	48			

⁷⁹ For more information on the National Enforcement Initiatives, visit: <http://www2.epa.gov/enforcement/national-enforcement-initiatives>.

⁸⁰ For more information visit <http://www2.epa.gov/enforcement/report-environmental-violations>.

⁸¹ For more information visit: <http://www.epa.gov/fugitives>.

Measure	(419) Percentage of criminal cases with individual defendants.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				75	75	75	75	75	Percent
Actual				70	80	87			

Measure	(420) Percentage of criminal cases with charges filed.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				40	40	40	45	45	Percent
Actual				44	38	39			

Measure	(421) Percentage of conviction rate for criminal defendants.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				85	85	85	85	85	Percent
Actual				95	94	95			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,626.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$327.0 / -1.8 FTE) This program change reflects a reduction to administrative and support personnel for the criminal enforcement program.
- (+\$2,423.0) This program change reflects increased resources for targeted, analytically-driven enforcement activities and to effectively investigate complex criminal enforcement cases. It also represents an increase in essential resources to support the electronic analytical platform needed to conduct comparative analysis of information from a variety of sources.
- (+\$1,450.0) This program change reflects an increase in funding needed to modernize the Criminal Investigation Division's Criminal Case Reporting System (CCRS) which is over nine years old and is at the end of its service life. The new system will have increased capability for data analytics (see above) and also provide a better data-sharing capability with other agency data systems.

Statutory Authority:

Resource Conservation and Recovery Act; Clean Water Act; Safe Drinking Water Act; Clean Air Act; Toxic Substances Control Act; Emergency Planning and Community Right-To-Know Act; Residential Lead-Based Paint Hazard Reduction Act; Federal Insecticide, Fungicide, and Rodenticide Act; Ocean Dumping Act (i.e., MPRSA); Pollution Prosecution Act; Title 18 General Federal Crimes (e.g., false statements, conspiracy); Powers of Environmental Protection Agency (18 U.S.C. 3063).

Environmental Justice

Program Area: Enforcement

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$6,636.8</i>	<i>\$6,737.0</i>	<i>\$13,971.0</i>	<i>\$7,234.0</i>
Hazardous Substance Superfund	\$609.1	\$581.0	\$609.0	\$28.0
Total Budget Authority / Obligations	\$7,245.9	\$7,318.0	\$14,580.0	\$7,262.0
Total Workyears	32.5	40.6	40.3	-0.3

Program Project Description:

The EPA is committed to fostering public health in communities disproportionately burdened by pollution by integrating and addressing issues of environmental justice (EJ) in the EPA's programs and policies as part of its day-to-day business. The EPA's EJ program promotes accountability for compliance with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." The EJ program facilitates this implementation by: (1) supporting and promoting the agency's efforts to address environmental justice issues; (2) supporting the EPA's outreach to other federal agencies through the interagency working group on environmental justice; and (3) promoting opportunities for communities to be heard and meaningfully engage with the federal government on environmental justice issues.

The EJ program conducts outreach and provides financial and technical assistance that empowers low income and minority communities to take action to protect themselves from environmental harm. The EJ program partners with other agency programs to develop scientific, legal, and public engagement guidance documents that enable the incorporation of environmental justice considerations into the EPA's regulatory and policy decisions. Finally, the EJ program supports agency efforts to strengthen internal mechanisms to integrate environmental justice into the EPA's programs and activities including communication, training, performance management, and accountability measures.

FY 2016 Activities and Performance Plan:

In FY 2016, the EJ program will place greater emphasis on collaboration between national programs, regional offices, and partner agencies to make a visible difference in communities. Several of these activities reflect recommendations from an evaluation report on the Environmental Justice Collaborative Problem-Solving (CPS) Cooperative Agreement program (FY 2009), which recommends that improved effectiveness, efficiencies and results can be achieved by the agency through a more integrated and holistic approach to assisting communities as they work to address their environmental issues. Similarly, opportunities to improve the structure and management of the EJ program range from greater collaboration internally across

program areas and regions to enhancing partnerships with external stakeholders, such as our state and federal partners with respect to leveraging technical support and resources to communities. The program can help affected communities create sustainable relationships with stakeholders, allowing them to resolve their current and future environmental and/or public health problems. Additionally, the program will work on the integration of EJ in the following ways:

- Implementing technical guidance in rulemaking and other analyses that inform the EPA's decisions and actions;
- Developing rules that implement existing statutory authority while working to reduce disproportionate pollutant burdens and cumulative impacts from multiple sources on low income and minority communities;
- Enhancing the ability of overburdened communities to participate fully and meaningfully in permitting processes and decisions; and
- Maintaining an inventory of successful efforts that track and report progress in achieving results in communities disproportionately burdened by environmental pollution. An inventory would include such projects as the Bridgeport CT East End Neighborhood project that leveraged a commitment from the City of \$1 million to create stormwater management training and greenscaper training for community youth. This project also removed 600 tons of contaminated soils from an industrial site which reduced the exposure of resident to environmental hazards.

In FY 2016, the EPA will continue to facilitate the integration of environmental justice considerations into planning and performance measurement processes. The agency will implement environmental justice activities consistent with the vision and commitments outlined in the agency's FY 2014-2018 Strategic Plan, Plan EJ 2014,⁸² its successor strategic plan for EJ at the EPA, and the annual action plan for the Cross-Cutting Fundamental Strategy for Working to Make a Visible Difference in Communities.

Community Programs

In FY 2016, the EPA will enhance its work to build community capacity, to be full partners in agency programs through implementation of its Community Roadmap. This effort will better connect the agency's programs – particularly those that are intended to support communities – to the specific needs of communities, particularly those with overburdened and vulnerable populations. Many of the agency's programs and activities will be enhanced and connected through this effort including Urban Waters Grants, Environmental Justice Small Grants, Office of Sustainable Communities Building Blocks Assistance, Technical Assistance Services for Communities (TASC), Collaborative Problem Solving Cooperative Agreements Program, and the Community Learning Network.

Additional funding in FY 2016 will ensure that the agency can offer these programs on a consistent and nationally comprehensive basis. The goal is to provide communities with the central support needed in order to leverage and work in conjunction with existing agency programs such as Brownfields, Urban Waters, and Sustainable Communities, as well as with

⁸² Plan EJ 2014 can be found at <http://epa.gov/environmentaljustice/plan-ej/index.html>.

other federal programs. This approach is in keeping with the EJ program's overall emphasis of fostering greater collaboration and leveraging of resources across the EPA and the rest of the federal family. Supporting the creation of such collaborations in vulnerable and overburdened communities will ensure that communities attain the necessary capacity and skills to fully benefit from such specialized agency programs. With a focus on peer-to-peer learning and collaboration, this agencywide effort makes critical use of the successful support and engagement that the agency's programs have achieved, by leveraging those community experiences in a broader yet more focused manner. This approach is also consistent with feedback received through discussions with community leaders.

EJ Grants

In FY 2016, the EPA will continue to manage the EJ grants programs to provide federal assistance to overburdened and vulnerable communities to enhance local capacity to address environmental challenges in their communities. Since its inception in 1994, the EJ program has awarded over \$28 million through its competitive grants program to more than 1,400 community-based organizations such as non-profit organizations, local governments, and Tribal governments to support their efforts to address local environmental and health issues.⁸³ The EJ small grants program and the collaborative problem solving (CPS) grants program, which was reintroduced in 2014, are both competitive grant programs and will both be offered annually as critical pieces of the Communities Roadmap approach described above. The EJ small grants program provides funding in the form of grants in amounts up to \$30 thousand for one year projects while the EJ collaborative problem solving grants program provides funding through cooperative agreements in amounts of up to \$120 thousand for two year projects. The following are examples of EJ small grant projects that started in FY 2013 and support efforts to create healthy and sustainable communities:

- **JASTECH Development Services, Inc.**, Philadelphia, PA: This project developed a community-based campaign and community advisory board to address the presence of toxic substances in local waterways in the Overbrook community in Philadelphia. The project activities plan is designed to minimize residents' exposure to poor water quality through a series of outreach initiatives and community cleanup efforts. Through a series of workshops, residents are learning proper disposal of household chemicals and other toxic substances, recycling techniques and ways to effectively engage community leaders in policy and decision making processes.
- **Groundwork New Orleans**, New Orleans, LA: The Green Slice Water Catchment Project addresses water pollution and improves urban water quality in the Lower Ninth Ward neighborhoods of New Orleans. The project activities will address the city's aging and insufficient water management infrastructure by introducing a water catchment system that will filter contaminants and reduce flow into the municipal storm water system. Environmental/public health results include reduced reliance on city drainage and pumping systems, reduced carbon footprint and decreased risk of minor flooding.

⁸³ For more information on EJ Grants, visit: <http://www.epa.gov/compliance/environmentaljustice/grants/index.html>.

National Environmental Justice Advisory Council

The National Environmental Justice Advisory Council (NEJAC), an EPA Federal Advisory Committee Act (FACA) committee, provides advice and recommendations on broad, cross-cutting issues related to environmental justice from all stakeholders involved in the environmental justice dialogue. In addition, the NEJAC provides a valuable forum for discussions about integrating environmental justice with other priorities and initiatives of the EPA. The NEJAC meetings will be augmented by work groups which will focus on providing advice and reports to the agency on key topics of concern.

In addition to issuing its Model Guidelines for Public Participation⁸⁴, an update to its 1996 Model Plan for Public Participation, the NEJAC issued the following advice and recommendations during fiscal years 2013 and 2014:

- **August 2014:** NEJAC provided recommendations on the implementation of four key principles in the EPA's Policy on Environmental Justice for Tribes and Indigenous Peoples.⁸⁵
- **January 2013:** Recommendations for Fostering Environmental Justice for Tribes and Indigenous Peoples: NEJAC provided advice and recommendations about how the EPA can improve the incorporation of environmental justice into: Tribal environmental capacity-building and federal implementation programs; collaboration with federally-recognized Tribal governments in addressing environmental justice concerns; collaboration with Tribal community-based organizations and other indigenous peoples; and coordination with other federal agencies on Tribal and indigenous environmental justice issues.

The list of advice and recommendations issued by the NEJAC are located on the EPA's website.⁸⁶

Environmental Justice Interagency Working Group

In FY 2016, the EPA's EJ program will continue to work with other federal agencies to continue building strong relationships with historically underrepresented communities. Pursuant to the "Memorandum of Understanding on Environmental Justice and Executive Order 12898 (August 4, 2011)", the EPA, in conjunction with the White House Council on Environmental Quality, will continue to convene the Interagency Working Group on Environmental Justice (EJIWG). The EJIWG is a mechanism to provide and foster training and technical assistance to other federal agencies on the integration of environmental justice into their programs. The EPA, in conjunction with other federal agency partners in the EJIWG, will develop an EJIWG Action Agenda that will strategically focus on leveraging resources and technical assistance on place

⁸⁴ For more information, visit: <http://epa.gov/compliance/environmentaljustice/resources/publications/nejac/recommendations-model-guide-pp-2013.pdf> .

⁸⁵ Refer to: <http://www.epa.gov/oecaerth/environmentaljustice/resources/policy/indigenous/ej-indigenous-policy.pdf>.

⁸⁶ Refer to: <http://epa.gov/compliance/environmentaljustice/nejac/recommendations.html>.

based initiatives to identify collaborative opportunities to support the achievement of healthy and sustainable community goals.

The EJ program will work with other federal agencies to advance consideration of environmental justice through the National Environmental Policy Act (NEPA) reviews, as well as through the work of various committees of the EJIWG. Additionally, the EPA will continue to work with federal agency partners to build key relationships at the regional and local levels that will foster increased awareness and implementation of environmental justice principles by regional and state staff.

- 1) The NEPA Committee of the IWG advanced consideration of environmental justice in NEPA reviews by:
 - Producing the National Environmental Policy Act (NEPA)/EJ Resource Compendium⁸⁷ – a compendium that gathers publically available information from federal agencies on the intersection of environmental justice and NEPA into one place.
 - Developing best practices that can help NEPA practitioners consistently, efficiently and effectively consider environmental justice in NEPA reviews. The checklist draws from the expertise and experience of NEPA practitioners across the federal government.
 - Producing a national training product to help NEPA practitioners, reviewers, and grantees understand ways to incorporate EJ into the NEPA process.

The deliverables and outcomes of the committee’s work will continue to have positive impacts in upcoming years. The national training and tool box of best practices developed by the committee will be accessed across the federal family and by external stakeholders who participate in NEPA during FY 2016 in support of better outcomes that result in healthier and sustainable communities.

- 2) Team EJ of the HUD-DOT-EPA Partnership for Sustainable Communities developed a one-stop web-based guide for the EPA, HUD, DOT and HHS/CDC resources to advance healthy, sustainable and equitable communities. The guide has information and links on environment, health, transportation, and housing which help communities with environmental justice concerns learn about their role in addressing longstanding challenges and revitalizing neighborhoods.⁸⁸

In FY 2016, the EPA will continue to provide a range of resources to support communities and ensure that ongoing EPA program work is more effectively leveraged. Agency resources will better prepare communities for implementing community-focused programs by establishing a centralized approach to support, assist and engage with overburdened communities and vulnerable populations. The resource increase will support the agency’s efforts to provide funding for missing elements of a sequenced suite of support and resources that helps meet community needs from strategic planning to implementation. Such a single cross program community support mechanism will make it easier for communities to receive assistance at various stages as well as enable the agency to much more effectively align and leverage the EPA

⁸⁷ Refer to: <http://www.epa.gov/environmentaljustice/resources/publications/interagency/nepa-ej-compendium.pdf>.

⁸⁸ For more information, visit: <http://www.epa.gov/compliance/environmentaljustice/sustainability/index.html>.

and other federal-level targeted resources. Resource increases will also support a dedication of agency resources to assist overburdened and vulnerable communities through the agency's Advanced Monitoring priority. The funds will be used to provide technical assistance and training on how to use advanced monitoring equipment, interpret and share the resulting data, and implement strategies to follow up on the findings, including engagement with appropriate regulatory agencies. In FY 2016, additional resources to help the Environmental Justice program will address local environmental and public health issues through its grant programs.

Performance Targets:

Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$277.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$5,000.0) This program change will provide financial assistance to eligible organizations working on projects to address local environmental and public health issues in overburdened and vulnerable communities. The funds will be used to build partnerships, assist communities to identify environmental and health problems, implement solutions, and to train experts to address specific environmental justice needs.
- (+\$1,000.0) This program change reflects the agency's focus on assisting overburdened and vulnerable communities through the agency's Advanced Monitoring priority. The funds will be used to provide technical assistance and training on how to use air and water sensors, interpret and share the resulting data, and implement strategies to follow up on the findings, including engagement with appropriate regulatory agencies.
- (+\$957.0 / -0.1 FTE) This net program change reflects increased resources to help the Environmental Justice program address local environmental and public health issues through its grant programs. There is a slight FTE reduction in support for broad Environmental Justice activities such as support for health policy research relating to disproportionate human health and environmental effects.

Statutory Authority:

Executive Order 12898; Resource Conservation and Recovery Act; Clean Water Act; Safe Drinking Water Act; Clean Air Act; Toxic Substances Control Act; Emergency Planning and Community Right-to-Know Act; Federal Insecticide, Fungicide, and Rodenticide Act; National Environmental Policy Act; Pollution Prevention Act; and Comprehensive Environmental Response, Compensation, and Liability Act.

NEPA Implementation

Program Area: Enforcement

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Promote Pollution Prevention

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$15,869.1</i>	<i>\$16,301.0</i>	<i>\$17,612.0</i>	<i>\$1,311.0</i>
Total Budget Authority / Obligations	\$15,869.1	\$16,301.0	\$17,612.0	\$1,311.0
Total Workyears	107.9	106.6	104.8	-1.8

Program Project Description:

Pursuant to the National Environmental Policy Act (NEPA) and as mandated by Section 309 of the Clean Air Act, the EPA's NEPA Implementation program reviews all of the approximately 350 to 450 Environmental Impact Statements (EISs) produced annually by the federal government, as well as environmental assessments associated with major or controversial projects. Under NEPA, an EIS is required for major federal actions significantly affecting the environment. The review of each EIS includes assessing potential environmental impacts, as well as identifying options for avoiding or mitigating them. The NEPA Implementation program also guides the EPA's compliance with NEPA, the National Historic Preservation Act, and other relevant statutes, and Executive Orders. The program manages the official EIS filing system for all federal EISs, in accordance with a Memorandum of Understanding with the Council on Environmental Quality.⁸⁹ Additionally, the program manages the review of Environmental Impact Assessments of non-governmental activities in Antarctica, in accordance with the Antarctic Science, Tourism and Conservation Act.

In support of its mission, the program fosters cooperation among federal agencies to ensure compliance with applicable environmental statutes, promotes better integration of pollution prevention and ecological risk assessment elements into federal programs, and provides technical assistance in developing projects that prevent adverse environmental impacts. The program encourages other federal agencies to incorporate environmental justice considerations into their decision making as they perform environmental analyses (both EISs and Environmental Assessments) under NEPA to ensure that the environment and health in overburdened communities are protected. In its review of EISs associated with major federal actions, the NEPA Implementation program focuses on high impact federal program areas such as energy development, transportation, and water resources projects. The program also develops agency policy and technical guidance on issues related to NEPA, the Endangered Species Act, the National Historic Preservation Act and other relevant Executive Orders.

⁸⁹ Memorandum of Agreement No. 1 Between The Council on Environmental Quality and The Environmental Protection Agency, October 1977.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to work with OMB, CEQ and other federal agencies to streamline and improve the NEPA process. This work will build on the EPA's FY 2013/2014 participation in the development of the interagency "Implementation Plan for the Presidential Memorandum on Modernizing Infrastructure Permitting."⁹⁰ The program will devote resources to participating in additional early permit/NEPA reviews, developing innovative mitigation approaches, and promoting the use of IT tools. The program has been successful at working with other federal agencies to ensure that project proposals are designed in a manner that protects environmental and community resources. For example, the EPA is continuing to work closely with the US Army Corps of Engineers and other agencies on the proposed Savannah Harbor Expansion Project. In that case, several critical mitigation measures associated with water quality and wetlands impacts, as well as community impacts, were agreed to by the Corps and the local project sponsor.

In FY 2014, the EPA issued comment letters on over 350 draft and final Environmental Impact Statements (EISs) as well as numerous environmental assessments and proposed regulatory and legislative changes.⁹¹ These included EISs concerning renewable energy, oil and gas exploration or extraction, mining and transmission lines. In FY 2014, approximately 75 percent of the significant impacts identified in the EPA's comment letters on Draft EISs were avoided, minimized, or compensated for ("mitigated") by the lead agencies in the Final EISs published in FY 2014.⁹²

With regard to IT tools, the program will continue to use and promote *NEPAassist*, a geographic information system (GIS) tool developed to assist users (the EPA, other federal agencies, and the public) with environmental reviews. Approximately 700 users visit the website each month and 85 percent are return visitors.

FY 2016 work also will focus on a number of key areas such as reviewing and commenting on proposals for oil and gas leasing and extraction, liquefied natural gas export facilities, oil, and gas pipelines, coal and hard-rock mining, renewable energy development (e.g., solar and wind projects); nuclear power licensing/re-licensing; highway and airport expansion; flood control, port development and management of national forests and public lands. In support of the President's Climate Action Plan, the EPA will work to assist other federal agencies to improve the analysis of climate change issues under NEPA, including estimating greenhouse gas emissions associated with federal actions and consideration of mitigation measures, as well as fostering climate resiliency.

In FY 2016, the EPA will continue to review NEPA documents related to permit applications for coal mining in Appalachia, and will work through the NEPA process with other federal agencies to protect the local environment and communities adjacent to the proposed mining operations. In addition, the EPA will continue its successful collaboration efforts with federal land management

⁹⁰ For more information, visit: <http://www.permits.performance.gov/pm-implementation-plan-2014.pdf>.

⁹¹ For more information, visit: <http://www.epa.gov/compliance/nepa/eisdata.html>.

⁹² For more information about EPA's NEPA program FY 2013 results visit <http://www2.epa.gov/nepa/national-environmental-policy-act-nepa-2013-annual-results>.

agencies to ensure the growing number of oil and natural gas development projects do not cause significant adverse air quality impacts, which can affect local communities. In FY 2014, the EPA hosted an interactive training session for over 40 participants from across the country representing all of the agencies involved in permitting of oil and natural gas project and interested tribes.

The EPA also will continue to utilize and improve *e-NEPA*, a web-based system for federal agencies to file EISs and to make comments on EISs accessible to the public on a centralized website. The EPA will continue with its NEPA Compliance work, striving to achieve compliance with applicable statutes and Executive Orders.

In FY 2016, the EPA will continue to support the President's Management Agenda, including modernizing the Federal permitting and review process for major infrastructure projects to reduce uncertainty for project applicants. The agency will reduce the aggregate time it takes to conduct reviews and make permitting decisions, and produce measurably better environmental and community outcomes.

Performance Targets:

Work under this program supports performance results in multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$599.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$712.0 / -1.8 FTE) This program change reflects a net increase of resources to support EIS reviews, interagency collaboration and to support and enhance the NEPAassist and e-NEPA tools to better serve the public and improve transparency.

Statutory Authority:

Clean Air Act; NEPA; Antarctic Science, Tourism, and Conservation Act; Clean Water Act; Endangered Species Act; National Historic Preservation Act; Archaeological and Historic Preservation Act; Fishery Conservation and Management Act; Fish and Wildlife Coordination Act; Executive Order 12898.

Program Area: Geographic Programs

Great Lakes Restoration

Program Area: Geographic Programs

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$288,870.0	\$300,000.0	\$250,000.0	(\$50,000.0)
Total Budget Authority / Obligations	\$288,870.0	\$300,000.0	\$250,000.0	(\$50,000.0)
Total Workyears	77.5	71.7	71.7	0.0

Program Project Description:

The Great Lakes are the largest system of surface freshwater on Earth, containing 20 percent of the world’s surface freshwater and 95 percent of the United States’ surface freshwater. The watershed includes two nations, eight U.S. states, two Canadian provinces, and more than 40 tribes.

Through a coordinated interagency process led by the EPA, implementation of the *Great Lakes Restoration Initiative* (GLRI) is helping to restore the Great Lakes ecosystem, enhance the economic health of the region, and ultimately improve the public health protection for the area’s 30 million Americans. This interagency collaboration accelerates progress, avoids potential duplication of effort, and saves money. The goal of the GLRI is to restore and maintain the environmental integrity of the Great Lakes ecosystem, in accordance with the *Great Lakes Water Quality Agreement* and the Clean Water Act. Using funds appropriated to EPA to supplement their base funding, agencies fund work directly or through others such as states, tribes, cities, universities, and non-governmental organizations. The EPA and its partners have achieved significant results since GLRI started in FY 2010, including:

- In February 2013, the Presque Isle, PA Area of Concern (AOC) was delisted. Federal agencies and their partners have also completed management actions necessary for delisting five additional AOCs.⁹³
- Forty two Beneficial Use Impairments (BUIs) have been removed at 17 AOCs in Illinois, Indiana, Michigan, New York, Ohio, Pennsylvania, and Wisconsin – four times the total number of BUIs removed in the preceding 22 years.¹
- Approximately 5 million cubic yards of contaminated sediment has been remediated.¹
- GLRI partners completed invasive species control activities on over 84,000 acres.
- GLRI has been central to the Administration’s coordinated efforts to keep self-sustaining Asian carp populations out of the Great Lakes.¹
- Over 1,000,000 acres of agricultural land in the Great Lakes watershed were put into USDA conservation contracts to reduce erosion and loadings of nutrients and/or pesticides.¹

⁹³ Results footnoted with “1” were achieved through a combination of GLRI funding and other non-GLRI federal and/or state funding.

- GLRI state and local partners have assessed approximately 95 percent of the most frequently used Great Lakes beaches to identify sources of contamination. They are taking actions at almost 15 percent of those beaches to reduce beach contamination.¹
- More than 3,400 river-miles have been cleared for fish passage by removing or bypassing over 500 barriers.
- More than 115 thousand acres of wetland, coastal, upland, and island habitat have been protected, restored, or enhanced.
- The federally listed Lake Erie water snake was delisted and conditions were improved for 11 endangered and threatened species, including the Karner blue butterfly and piping plover.¹
- Projects were implemented that lead to 13 populations of native aquatic non-threatened and non-endangered species becoming self-sustaining in the wild.¹
- GLRI partners implemented a coordinated, intensive science and monitoring plan for each Lake through the Cooperative Science and Monitoring Initiative.¹
- GLRI partners developed a tool to forecast potential Phragmites coastal invasion corridors.

GLRI funds are appropriated to the EPA. After agreement on priorities, the EPA then provides a substantial portion of those funds to its partner federal agencies. Agencies undertake projects and/or fund projects performed by states, tribes, municipalities, counties, universities, and nongovernmental organizations. The EPA has taken concrete steps to accelerate the expenditures of GLRI funds, such as: (1) looking at potential recipients' past expenditure rates before issuing new awards; (2) increasing monitoring of award recipients; and (3) taking steps to hold recipients to their workplan commitments. Building on the reduction in cumulative unliquidated obligations in 2014, the EPA and its federal partners will continue efforts to reduce prior year funding balances.

FY 2016 Activities and Performance Plan:

In FY 2016, the GLRI will continue to support programs and projects which target the most significant environmental problems in the Great Lakes. In 2016, emphasis will continue to be placed on: 1) cleaning up and delisting Areas of Concern; 2) reducing phosphorus contributions from agricultural and urban lands that contribute to harmful algal blooms and other water quality impairments; and 3) invasive species prevention. The new GLRI Action Plan (Action Plan) targets GLRI restoration within five Focus Areas. Work within the Focus Areas will be evaluated annually to prioritize future work. Objectives for each Focus Area are described below.

Toxic Substances and Areas of Concern objectives:

- **Remediate, restore and delist Areas of Concern.** The EPA, U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), U.S. Geological Survey (USGS), National Oceanic and Atmospheric Administration (NOAA), and other GLRI partners will continue accelerating the pace of U.S. AOC delistings, including two delistings in FY 2015. The EPA and its federal partners will work with and fund stakeholders to remove BUIs (indicators of poor environmental health) and implement management actions necessary for delisting in the remaining U.S. AOCs. Agencies will support BUI removal through sediment remediation under the Great Lakes Legacy Act (part of the GLRI) and other restoration activities.
- **Increase knowledge about contaminants in Great Lakes fish and wildlife.** Federal agencies and their partners will provide information on the health risks and benefits of Great Lakes fish consumption, including targeted outreach to high-risk fish consuming populations. Federal agencies and partners will evaluate emerging contaminants that have the greatest potential to adversely impact Great Lakes fish and wildlife – impacts which may also result in ecological, economic and recreational consequences.

Community Highlight: White Lake, MI

The EPA partnered with the State of Michigan and the Michigan communities of Whitehall and Montague to identify and complete all management actions necessary for the 2014 delisting of the White Lake Area of Concern (AOC). Overall, EPA and its state partner, the Michigan Department of Environmental Quality, invested over \$5.2 million of Great Lakes Restoration Initiative funds to clean up the AOC, including habitat restoration at ten different locations in and around White Lake and removal of over 8.6 thousand cubic yards of tannery waste from a lakeside site. The EPA worked with a community group, the White Lake Public Advisory Council, that was instrumental in identifying the problems, providing data for the impairment removals, conducting monthly meetings that focused agency actions, and acting as a conduit to the broader community. In FY 2016, EPA will continue to invest GLRI resources in similar targeted efforts with communities to accelerate restoration of the remaining Great Lakes AOCs.

Invasive Species objectives:

- **Prevent new introductions of invasive species.** Federal agencies and their partners will continue to prevent new invasive species (including Asian Carp) from establishing self-sustaining populations in the Great Lakes ecosystem. Federal agencies and their partners will work to increase the effectiveness of existing surveillance programs by establishing a coordinated, multi-species early detection network. Federal agencies will support state and Tribal efforts to develop and implement Aquatic Nuisance Species Management Plans which will be used for annual “readiness exercises” and actual responses to new detections of invasive species. Competitive grant programs will continue to be used to fund new initiatives to block pathways through which invasive species can be introduced to the Great Lakes ecosystem. Risk assessments will continue to be refined to inform the targeting of species, pathways and sites for early detection monitoring. Because the Great Lakes can be an invasion pathway to the 31 states within the Mississippi River watershed and beyond, these prevention efforts will also benefit the entire nation.
- **Controlling Invasive Species in the Great Lakes Basin.** Federal agencies and their partners will restore sites degraded by aquatic, wetland and terrestrial invasive species. Federal

agencies will implement control projects in national forests, parks and wildlife refuges and will partner with states and neighboring communities to promote larger scale protection and restoration through the Midwest Invasive Plant Network and the Cooperative Weed Management Area control programs. GLRI funding will help the Great Lakes Sea Lamprey Control Program to expand the strategic use of tributary barriers and traps as an alternative to chemical control.

- **Develop invasive species control technologies and refine management techniques.** Federal agencies and their partners will continue to develop and enhance technologies to control Great Lakes invasive species. Federal agencies will also develop and enhance invasive species “collaboratives,” such as the Great Lakes Phragmites Collaborative, to support rapid responses and to communicate the latest control and management techniques. GLRI funding will support development or enhancement of species-specific collaborations for Phragmites, monocious Hydrilla and grass carp, as well as other invasive species.

Nonpoint Source Pollution Impacts on Nearshore Health objectives:

- **Reduce nutrient loads from agricultural watersheds.** Federal agencies and their partners will continue to reduce nutrient runoff in watersheds targeted through the GLRI science-based adaptive management process. The work will: advance drinking water source protection, increase voluntary agricultural conservation practices to achieve downstream water quality improvements; track nutrient and sediment reductions achieved through conservation practices; use voluntary, incentive-based and existing regulatory approaches to reduce nutrient losses; encourage producers and agribusinesses to adopt innovative technologies and approaches to reduce nutrient runoff and soil losses; and educate agricultural producers about the links between long-term productivity, nutrient conservation and water quality. Federal agencies and their partners will develop assessments of the extent to which harmful algal blooms are impacted by various factors and of the relationship between algal blooms and hypoxia.
- **Reduce untreated runoff from urban watersheds.** Federal agencies and their partners will continue to implement watershed management and green infrastructure projects to reduce the impacts of polluted urban runoff on nearshore water quality at beaches and in other coastal areas. These projects will capture or slow the flow of untreated runoff and filter out sediment, nutrients, toxic contaminants, pathogens and other pollutants prior to entering Great Lakes tributaries and nearshore waters. Federal agencies and their partners will build green infrastructure, install tributary buffers, restore coastal wetlands, and re-vegetate and re-forest areas near Great Lakes coasts and tributaries. These and other actions to reduce untreated runoff will be implemented in urban areas that have adopted watershed management strategies.

Habitats and Species objectives:

- **Protect, restore and enhance habitats to help sustain healthy populations of native species.** Federal agencies and their partners will implement protection, restoration and enhancement projects focused on open water, nearshore, connecting channels, coastal wetland and other habitats. Projects will be largely based on priorities in regional-scale conservation strategies and will include:
 - Removing dams and replacing culverts to create fish habitat and reconnect migratory species to Great Lakes tributaries.

- Restoring riparian and in-stream habitat to prevent erosion and to create sufficient habitat for aquatic species.
 - Protecting, enhancing and restoring coastal wetlands.
 - Restoring habitat necessary to sustain populations of migratory native species.
 - Implementing off shore reef rehabilitation projects to promote natural fish spawning.
 - Protecting, restoring, and managing existing wetlands and high-quality upland areas to sustain diverse, complex, and interconnected habitats for species reproduction, growth, and seasonal refuge.
- **Maintain, restore and enhance populations of native species.** Federal agencies and their partners will work to maintain, restore and enhance populations of native fish and wildlife species. Projects will be targeted based on restoration and conservation plans and will: protect and restore species diversity; reintroduce populations of native species to restored habitats and evaluate their survival; protect or restore culturally significant species; manage invasive species that inhibit the sustainability of native species; pioneer species propagation and relocation techniques; and implement other activities necessary for the eventual recovery of federal and state threatened and endangered species.

Foundations for Future Restoration Actions objectives:

- **Ensure climate resilience of GLRI-funded projects.** Federal agencies will develop standardized climate resiliency criteria that will be used to design and select GLRI projects. These criteria will ensure, for example, that GLRI restoration projects incorporate plant and tree species that are suitable for current and projected future climatic conditions. Similarly, these criteria will be used to design watershed restoration projects to take into account potential impacts of more frequent or intense storms on water flow, erosion and runoff.
- **Educate the next generation about the Great Lakes ecosystem objectives:** Federal agencies and their partners will promote Great Lakes-based environmental education and stewardship for students and other interested audiences (e.g., courses at parks, nature centers, museums and zoos). GLRI partners will work with existing environmental education programs, foster the growth of new programs, and align new and/or existing curricula with the Great Lakes Literacy Principles as well as state and national academic learning standards. Federal agencies that are stewards of lands and waters important to the Great Lakes ecosystem will also provide place-based experiential learning to the public.
- **Implement a science-based adaptive management approach for GLRI.** The GLRI science-based adaptive management process⁹⁴ will guide restoration and protection actions by using the best available science and applying lessons learned from past and ongoing GLRI projects and programs. Federal agencies involved in the GLRI will use this process to continue to identify the most critical environmental problems in the Great Lakes ecosystem and to select projects that will most effectively address those problems. As part of this process, federal agencies will consult with their state and Tribal partners and will seek input from the Great Lakes Advisory Board, the scientific community, Lakewide Action and Management Plan partnerships and the general public.

⁹⁴ Two science-based planning processes are involved — one that occurs every five years and one that is implemented annually. Every five years, federal agencies develop a GLRI Action Plan to establish principal initiatives, commitments, metrics and long-term goals. Federal agencies also conduct annual planning to identify specific projects and programs to target the highest priority problems in the Great Lakes ecosystem.

Funding Allocations. The EPA leads the Interagency Task Force (IATF) process to develop funding allocations for member agencies. The EPA, following consultation with members of the IATF, determines the final programs and projects for funding. The following allocation for 2016 is draft pending consultation with the IATF.

Summary of FY 2010 - 2016 Allocations by Focus Area and by Agency

Focus Area Allocations (Dollars in Thousands)							
Focus Area	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015 ^[1]	FY 2016
Toxic Substances and Areas of Concern	\$146,946	\$100,400	\$107,500	\$111,000	\$106,000	\$117,000	\$90,300
Invasive Species	\$60,265	\$57,500	\$56,900	\$45,000	\$57,000	\$53,000	\$44,900
Nonpoint Source Pollution Impacts on Nearshore Health ^[2]	\$97,331	\$49,250	\$54,300	\$45,000	\$56,000	\$55,000	\$44,000
Habitat and Species ^[3]	\$105,262	\$63,000	\$57,200	\$65,500	\$60,500	\$46,000	\$44,100
Foundations for Future Restoration Actions ^[4]	\$65,196	\$29,250	\$23,600	\$17,000	\$20,500	\$29,000	\$26,700
TOTAL	\$475,000	\$299,400	\$299,500	\$283,500	\$300,000	\$300,000	\$250,000

Agency Allocations (Dollars in Thousands)							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY2015	FY2016*
DHS-USCG	\$6,350	\$2,725	\$2,710	\$2,451	\$1,278	\$2,006	\$1,600
DOC-NOAA	\$30,537	\$18,289	\$16,243	\$25,505	\$24,270	\$26,584	\$9,800
DOD-USACE	\$49,587	\$31,425	\$35,647	\$31,622	\$24,069	\$34,609	\$16,500
DOI-BIA	\$3,416	\$6,316	\$4,719	\$3,985	\$3,950	\$3,950	\$3,700
DOI-NPS	\$10,505	\$4,861	\$3,527	\$3,013	\$3,177	\$3,142	\$2,900
DOI-FWS	\$69,349	\$48,690	\$45,700	\$40,001	\$48,481	\$33,374	\$21,400
DOI-USGS	\$23,717	\$14,532	\$13,052	\$12,662	\$19,832	\$11,679	\$8,700
DOT-FHWA	\$2,500	\$1,218	\$1,221	\$973	\$965	\$965	\$0
DOT-MARAD	\$4,000	\$2,695	\$2,447	\$2,311	\$1,791	\$2,291	\$1,900
HHS-ATSDR/CDC	\$5,500	\$2,196	\$2,200	\$1,416	\$1,739	\$1,738	\$1,400
USDA-APHIS	\$1,885	\$637	\$1,134	\$904	\$1,246	\$1,246	\$1,100
USDA-NRCS	\$34,092	\$16,788	\$27,185	\$20,529	\$23,280	\$23,281	\$18,500
USDA-USFS	\$15,458	\$8,890	\$6,718	\$6,029	\$6,401	\$6,290	\$5,200
EPA, GLFC, IJC and Misc. Interagency Agreements	\$218,104	\$140,138	\$137,017	\$132,299	\$139,522	\$132,845	\$128,000
Multi-Agency Habitat**							\$16,200
Multi-Agency Asian Carp***						\$16,000	\$13,000

* **Preliminary estimate approved by Regional Working Group.** The FY2016 total for EPA includes funding that remains to be allocated among various agencies for targeted Areas of Concern.

** EPA is discussing allocations of this portion of habitat funding with FHWA, USACE, BIA, USFWS, APHIS, USFS, NOAA, and NPS.

*** GLRI Asian carp funding is included in agency totals through FY 2014, but allocations have not yet been determined for FY 2015 or FY 2016.

[1] Based on nominal allocations approved by the Interagency Task Force.

[2] Nearshore Health and Nonpoint Source Pollution in FY 2010-2014.

[3] Habitat and Wildlife Protection and Restoration in FY 2010-2014.

[4] Accountability, Education, Monitoring, Evaluation, Communication, and Partnerships in FY 2010 – 2014.

Performance Targets:

Measure	(626) Number of Areas of Concern in the Great Lakes where all management actions necessary for delisting have been implemented (cumulative).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			1	3	4	5	8	9	AOCs
Actual			2	2	3	7			

Measure	(628) Number of acres controlled by GLRI-funded projects (cumulative).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			1,500	15,500	34,000	38,000	94,500	104,500	Acres
Actual			13,045	31,474	35,924	84,500			

Measure	(629) Number of GLRI-funded Great Lakes rapid responses or exercises conducted.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			4	12	26	35	8	8	Number Responses/ Plans
Actual			8	23	30	38			

Measure	(625) Areas of Concern Beneficial Use Impairments removed (cumulative).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	21	20	26	33	41	46	60	65	BUIs Removed
Actual	12	12	26	33	41	52			

Measure	(638) Projected phosphorus reductions from GLRI-funded projects in targeted watersheds (measured in pounds).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target							130,000	310,000	Pounds
Actual									

Measure	(639) Projected volume of untreated urban runoff captured or treated by GLRI-funded projects. (Cumulative)								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target							30	70	Gallons (millions)
Actual									

Measure	(640) Number of miles of Great Lakes tributaries reopened by GLRI-funded projects. (Cumulative)								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target							2,200	2,500	Miles
Actual									

Measure	(641) Number of miles of Great Lakes shoreline and riparian corridors protected, restored, and enhanced by GLRI-funded projects. (Cumulative)								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target							75	100	Miles
Actual									

Measure	(642) Number of acres of Great Lakes coastal wetlands protected, restored, and enhanced by GLRI-funded projects. (Cumulative)								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target							7,000	15,000	Acres
Actual									

Measure	(643) Number of acres of other habitats in the Great Lakes basin protected, restored, and enhanced by GLRI-funded projects. (Cumulative)								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target							127,000	147,000	Acres
Actual									

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$50,000.0) This net program change reflects a reduction in interagency agreements, grants, and contracts that will place a greater focus on three continuing GLRI areas of emphasis: clean-up of Areas of Concern; preventing and controlling the spread of invasive species, and taking steps to address the causes of harmful algal blooms in priority watersheds. Included is an increase for fixed and other costs of \$385.0 that reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs for the program.

Statutory Authority:

1990 Great Lakes Critical Programs Act; Great Lakes Legacy Reauthorization Act of 2008; *Clean Water Act*; Coastal Wetlands Planning, Protection, and Restoration Act of 1990; Estuaries and Clean Waters Act of 2000; North American Wetlands Conservation Act; US-Canada Agreements; Water Resources Development Act; 1909 The Boundary Waters Treaty; 1978 Great Lakes Water Quality Agreement; 1987 *Great Lakes Water Quality Agreement*; and 1987 Montreal Protocol on Ozone Depleting Substances.

The EPA is again proposing the statutory language pertaining to administrative provisions that was first included in the FY 2010 Department of the Interior, Environment, and Related Agencies Appropriations Act. Among other things, the language provides the EPA independent statutory authority to enter into interagency agreements for the implementation of grants and contracts to support the GLRI and the Great Lakes Water Quality Agreement. Continuation of this authority is important to the success of the GLRI. Agencies are expected to use numerous other statutory authorities, intrinsic to their programs, in support of the GLRI.

Geographic Program: Chesapeake Bay

Program Area: Geographic Programs

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$61,335.5	\$73,000.0	\$70,000.0	(\$3,000.0)
Total Budget Authority / Obligations	\$61,335.5	\$73,000.0	\$70,000.0	(\$3,000.0)
Total Workyears	43.9	39.9	39.9	0.0

Program Project Description:

The Chesapeake Bay Program is a voluntary partnership, initiated in 1983, that now includes the Chesapeake Bay watershed states (Delaware, Maryland, New York, Virginia, Pennsylvania, and West Virginia), the District of Columbia, the Chesapeake Bay Commission, and the federal government. The EPA represents the federal government on the partnership's Chesapeake Executive Council (EC) and, under the authority of Section 117 of the Clean Water Act, maintains a program office and works with the EC to coordinate activities of the partnership. In May 2009, President Obama signed Executive Order (EO) 13508, which tasked a Federal Leadership Committee to draft a path forward for protection and restoration of the Chesapeake Bay watershed.⁹⁵

Building largely from goals and processes established under the EO on June 16, 2014, Chesapeake Bay Program partners signed the new Chesapeake Bay Watershed Agreement, which provides, for the first time, the Bay's headwater states (Delaware, New York, and West Virginia) with full partnership in the Bay program. The agreement establishes 10 goals and 31 outcomes for sustainable fisheries, water quality, vital habitats, climate change, toxic contaminants, and other areas consistent with the EO strategy.⁹⁶

Beginning in 2012, the EPA, the watershed jurisdictions, and other key federal agencies set two-year milestones for outcomes outlined in the EO strategy, the Bay Total Maximum Daily Load (TMDL), and the jurisdictions' Watershed Implementation Plans (WIPs).⁹⁷ The TMDL satisfies a requirement of the Clean Water Act as well as EPA commitments under Court-approved consent decrees for Virginia and Washington, D.C. dating to the late 1990s (<http://www.epa.gov/chesapeakebaytmdl>). The TMDL is designed to ensure all nitrogen, phosphorus, and sediment pollution control efforts needed to fully restore the Bay and its tidal rivers are in place by 2025, with controls, practices, and actions in place by 2017 that would

⁹⁵ This plan, the *Strategy for Protecting and Restoring the Chesapeake Bay Watershed* [EPA-903-R-10-003], is available at <http://executiveorder.chesapeakebay.net/page/Reports-Documents.aspx>.

⁹⁶ The 2014 Chesapeake Bay Watershed Agreement is available at <http://www.chesapeakebay.net/chesapeakebaywatershedagreement/page>.

⁹⁷ The federal milestones related to water quality in the Chesapeake Bay watershed are available at http://executiveorder.chesapeakebay.net/EO_13508_Water_Quality_Milestones-2012-01-06.pdf. The jurisdictional milestones are available at <http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/EnsuringResults.html>.

achieve 60 percent of the necessary reductions. The TMDL is supported by appropriate accountability measures. In FY 2017, the EPA will assess the jurisdictions' progress toward their TMDL goals by using evidence from its Chesapeake Bay monitoring network and other decision support tools to determine how much progress is being made and what efforts need to be undertaken to continue such progress.

Community Highlight: Bladensburg, MD

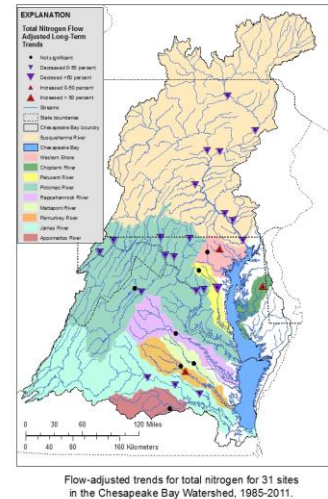
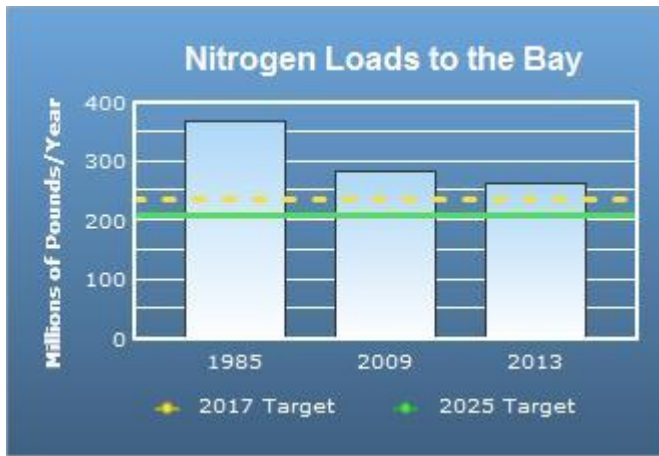
In 2011, the Town of Bladensburg in Prince George's County, Maryland, partnered with a local nonprofit for the EPA Green Streets, Green Jobs, and Green Towns (G3) grant, administered through a partnership with the Chesapeake Bay Trust, to evaluate the economic benefits of transforming the town's main street into a green street. The study, funded by the EPA grant, identified three potential financing opportunities the Town could use to implement green infrastructure projects along Route 450: financing with community-based revenue and funding streams; leveraging other public-based financing from county, state, and federal governments; and leveraging private investments, primarily through land and economic development projects. The study also highlighted the need for Bladensburg, a relatively small community, to partner with surrounding municipalities and governments to leverage existing or planned investments associated with other community development goals. As a result, the Maryland Highway Administration is now a key partner in the Town's green infrastructure implementation process. So far, The EPA's \$20,000 investment has been leveraged into \$4 million of funding to proceed with the project. EPA recently provided G3 grants to Lancaster, Pennsylvania, and Bethel, Delaware, to implement green infrastructure projects that will improve stormwater control and plans to continue to make these valuable investments at the local level in FY 2016 and beyond.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA is requesting \$70 million for the Chesapeake Bay Program. Most of the EPA's direct efforts will focus on implementation of the management strategies developed under the new Chesapeake Bay Watershed Agreement, as well as on oversight of the Chesapeake Bay TMDL, and support for the Bay watershed jurisdictions as they implement their WIPs. The EPA and its partners are developing at least 25 management strategies in FY 2015 to achieve the agreement's goals and outcomes and will be implementing those strategies in FY 2016. The EPA and its partners also will be developing approximately 20 new indicators to measure Bay restoration progress under the new Agreement. The EPA will continue to provide coordination to the broad range of program partnership teams and workgroups developing and implementing the management strategies.

In FY 2016, the EPA will continue its close work with the jurisdictions and

thousands of local governments by providing financial support and technical guidance so that the jurisdictions can efficiently implement the Chesapeake Bay Watershed Agreement and the TMDL. \$33 million is requested for grants to states for WIP implementation. The EPA will continue its broad range of grant programs and will prioritize funding for jurisdictions, local governments, and watershed organizations based on their proven ability to reduce nutrient and sediment loads from key sectors such as development and agriculture.



The program is making continual progress toward its 2017 targets for pollution controls. By FY 2016, the program expects to achieve 45 percent of its goals for implementing nitrogen, phosphorus and sediment reduction actions to achieve final TMDL allocations, as measured through the phase 5.3.2 watershed model.

The EPA will continue to support innovative environmental technologies, market mechanisms, and alternative financing to achieve the goals of the TMDL. In addition to addressing nutrient and sediment loadings, the EPA, with its federal and jurisdictional partners, will implement an updated toxics management strategy. The agency will continue refining and improving *ChesapeakeStat*, a web-based tool for performance-based decision-making for all Bay partners, and the Bay Tracking and Accounting System. In FY 2016, the EPA also will begin implementation of the Chesapeake Bay Accountability and Recovery Act of 2014, which requires new financial reporting and evaluation of the program. The EPA will continue implementation of a basin-wide Best Management Practice verification framework, working with jurisdictions to enhance their verification of pollutant reduction practices, treatments, and technologies.

In FY 2016, continued implementation of the compliance and enforcement strategy for the Bay watershed will target sources of pollution impairing the Bay in the watershed and airshed relying on the increased data availability about NPDES sources and their compliance status through e-Reporting into the Integrated Compliance Information System (ICIS). The strategy combines the EPA’s water, air, and waste enforcement authorities to address violations of federal environmental laws resulting in nutrient, sediment, and other pollution in the Bay. The EPA will continue to use an evidence-based approach to its oversight of Bay jurisdictions through assessment and review of two-year milestones, agricultural programs, stormwater programs, trading and offset programs, and permits and associated management plans.

Performance Targets:

Measure	(cb6) Percent of goal achieved for implementing nitrogen reduction actions to achieve the final TMDL allocations, as measured through the phase 5.3 watershed model.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			1	15	22.5	30	37.5	45	Percent Goal Achieved
Actual			8	21	25	27			

Measure	(cb7) Percent of goal achieved for implementing phosphorus reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			1	15	22.5	30	37.5	45	Percent Goal Achieved
Actual			1	19	27	43			

Measure	(cb8) Percent of goal achieved for implementing sediment reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			1	15	22.5	30	37.5	45	Percent Goal Achieved
Actual			11	30	32	37			

Measure	(234) Reduce per capita nitrogen loads (pounds per person per year) to levels necessary to achieve Chesapeake Bay Total Maximum Daily Load allocations.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target					15.17	15	14.5	14	Pounds/Person/Year
Actual					14.92	14.7			

For FY 2016, the EPA, along with the other agencies involved in responding to the President’s EO, will be working toward the outcomes articulated in the Chesapeake Bay Watershed Agreement and the EO strategy. Shorter-term goals will be identified in the agreement’s management strategies and in federal two-year milestones. The EPA’s measures for reducing nitrogen, phosphorus, and sediment are directly aligned with the Executive Order strategy water quality outcome to ‘meet water quality standards for dissolved oxygen, clarity/underwater grasses and chlorophyll-a in the Bay and tidal tributaries by implementing 100 percent of pollution reduction actions for nitrogen, phosphorus, and sediment no later than 2025, with 60 percent of segments attaining water quality standards by 2025.’

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$287.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$716.0) This program change reflects an increase in contract support for Permit Reviews and Rule Implementation.
- (+\$2,045.0) This program change reflects an increase in grant support for the Chesapeake Bay jurisdictions in the implementation and revision of their Watershed Implementation

Plans and management strategies associated with the Chesapeake Bay Watershed Agreement.

- (+\$40.0) This program change reflects an increase for additional contract support for enforcement.
- (-\$3,000.0) This program change reflects a reduction in Innovative Nutrient and Sediment Reduction Grants. This will reduce the number of restoration projects that watershed groups and local governments will be able to implement to reduce nutrient and sediment pollutant loadings to the Bay and its tributaries.
- (-\$3,000.0) This program change reflects a reduction in Small Watershed Grants. This will reduce the number of restoration projects that watershed groups and local governments will be able to implement to reduce nutrient and sediment pollutant loadings to the Bay and its tributaries.
- (-\$88.0) This program change reflects a reduction in contract support for legal support for Clean Water Rules and Guidance.

Statutory Authority:

Clean Water Act (CWA), 33 U.S.C. 26 et seq. – Sections 1267 and 1313; Clean Air Act (CAA), 42 U.S.C. 85 et seq.

Geographic Program: San Francisco Bay

Program Area: Geographic Programs

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$5,312.4	\$4,819.0	\$3,988.0	(\$831.0)
Total Budget Authority / Obligations	\$5,312.4	\$4,819.0	\$3,988.0	(\$831.0)
Total Workyears	1.2	1.9	1.9	0.0

Program Project Description:

In August 2014, the EPA marked the second full year of implementing the [2012 Bay Delta Action Plan](#)⁹⁸ designed to protect and restore the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. The EPA is collaborating with agencies at all levels, NGOs, and other stakeholders to advance key aspects of the seven-point plan. The EPA's top priority remains assisting the State Water Resources Control Board (State Water Board) with the comprehensive updating of the Bay Delta Water Quality Control Plan (Bay Delta WQCP), but the third year of a severe [drought](#)⁹⁹, the growing controversy surrounding the proposed Bay Delta Conservation Plan, and shrinking resources have strained the capacity of the EPA and the State Water Board to adhere to the original milestones forecast in the Action Plan. At the same time, widespread concern about the drought may provide the EPA and the State with the leverage needed to create a transformational change in the way water is consumed, conserved, and recycled, and provide us with opportunities to help the communities we serve with increasing their resiliency to drought, floods, and climate change.

Economic and environmental services provided by the Bay Delta include:

- Drinking water for 25 million residents;¹⁰⁰
- Irrigation water that underpins an agricultural sector worth \$37.5 billion¹⁰¹ in revenue;
- Aquatic habitat for two-thirds of California's salmon fishery; the closure of which cost over 1,800 jobs and \$118.4 million in income (2008-2009);¹⁰²
- Wetlands to support at least 50 percent of the migratory water birds on the Pacific Flyway.

⁹⁸ <http://www2.epa.gov/sfbay-delta/bay-delta-action-plan>

⁹⁹ <http://www.saveourh2o.org/content/Drought2014WhatYouNeedtoKnow>

¹⁰⁰ *Sustainable Water and Environmental Management in the California Bay-Delta*. 2012. National Academies Press http://www.nap.edu/openbook.php?record_id=13394&page=1

¹⁰¹ Agricultural Statistical Overview. 2011-2012. California Department of Food and Agriculture.

<http://www.cdfa.ca.gov/statistics/pdfs/AgStatOverview2011-12.pdf>

¹⁰² UOP Business Forecasting Center. 2010. *Employment Impacts of California Salmon Fishery Closures in 2008 and 2009*. <http://forecast.pacific.edu/BFC%20salmon%20jobs.pdf>

The Action Plan addresses the issues and opportunities identified by the agency and stakeholders through the EPA's [*Advance Notice of Proposed Rulemaking for Water Quality Challenges in the San Francisco Bay/ Sacramento-San Joaquin Delta Estuary*](#)¹⁰³ (ANPR, 2011). The ANPR documented the adverse effects of contaminants such as ammonia, selenium, and pesticides on aquatic life, and evaluated factors that are degrading ecosystem functions and preventing the recovery of native fishes, e.g., freshwater diversion, salinity intrusion, and high water temperatures.

FY 2016 Activities and Performance Plan:

The EPA will focus on the following activities consistent with our Action Plan:

- Continue supporting the State Water Board with implementing their [*Strategic Workplan for the Bay-Delta*](#)¹⁰⁴, which includes advancing the Bay-Delta WQCP, implementing TMDLs, and establishing a Delta Regional Monitoring Program (RMP);
- Continue administering the [*San Francisco Bay Area Water Quality Improvement Fund*](#)¹⁰⁵ (Fund) to achieve on-the-ground environmental results. Since 2008, the EPA has invested over \$32 million in 53 projects through 25 grant awards involving 71 partners, and leveraged another \$105 million in non-federal funds to restore wetlands and watersheds and reduce polluted runoff.
- Continue working with Natural Resource Conservation Service, California Department of Water Resources, National Marine Fisheries Service, the Corps and other agencies on restoring water quality and ecosystem processes on the San Joaquin River and the South Delta. Participate in the following forums: the [*California Bay Delta Critical Conservation Area \(CCA\)*](#)¹⁰⁶ and the [*Central Valley Flood Management Planning Program*](#)¹⁰⁷;
- Create a more resilient Bay Delta ecosystem by leveraging our work with entities involved in the [*San Francisco Estuary Partnership*](#)¹⁰⁸ and the [*San Francisco Estuary Institute*](#).¹⁰⁹

Community Highlight:

San Francisco Bay Delta

Over the past six years, the EPA has partnered with communities across the nine Bay Area counties through the San Francisco Bay Water Quality Improvement Fund, using more than \$36 million in EPA funding to leverage \$132 million in additional funds for projects that are making a difference by restoring streams, wetlands, and water quality from the Napa River in the North Bay to the salt ponds in the South Bay. This is one example of the type of projects that will be accomplished using the FY 2016 requested funds.

¹⁰³ <http://www2.epa.gov/sfbay-delta>

¹⁰⁴ http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/strategic_plan/

¹⁰⁵ <http://www2.epa.gov/sfbay-delta/sf-bay-water-quality-improvement-fund>

¹⁰⁶ <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/farmland/rcpp/?cid=stelprdb1254127>

¹⁰⁷ <http://www.water.ca.gov/cvfmfp/>

¹⁰⁸ <http://www.sfestuary.org/>

Performance Targets:

The EPA performs this work under the Protect and Restore Watersheds and Aquatic Ecosystems objective, and measures its progress toward meeting Clean Water Act goals through assessment and monitoring efforts supported by EPA funds. Currently, there are no performance measures for this specific program. However, the program's performance, and the performance of the regulated communities, are documented both in the ANPR mentioned above, and the *Pulse* reports cited below.¹¹⁰ Collectively, these reports conclude that water quality and aquatic resources in the Bay Delta ecosystem are still impaired and are not being fully protected by existing clean water programs being administered by federal and State agencies. Part of the problem remains the widespread use of pesticides that are harming aquatic life, and this requires greater internal coordination across the EPA's water and pesticide programs, and a more robust partnership with the California's Department of Pesticide Regulation. In FY 2016, our priority will be to collaborate intensively with the State Water Board to formulate an approvable Phase 1 of the Bay Delta WQCP pertaining to the lower San Joaquin River and South Delta.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$6.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$837.0) This program change reflects a reduction in efforts to address EPA Bay Delta Action Plan goals of improving water quality and restoring habitat in the San Francisco Bay Delta Estuary.¹¹¹ The EPA will prioritize projects to advance the protection and restoration of aquatic resources.

Statutory Authority:

Clean Water Act (CWA).

¹⁰⁹ http://www.sfei.org/calendar_events/4239

¹¹⁰ 2012 *Pulse of the Delta: Linking Science & Management through Regional Monitoring*
<http://www.sfei.org/documents/pulse-delta-linking-science-management-through-regional-monitoring>

2013 *Pulse of the Bay: Contaminants of Emerging Concern*

<http://www.sfei.org/content/pulse-bay-contaminants-emerging-concern-0>

2014 *Bay RMP Update*

<http://ebooks.sfei.org/update2014/>

2011 *State of San Francisco Bay Report*

http://sfep.sfei.org/wp-content/uploads/2012/12/11SFEP_STATEofSFBAY2011.pdf

¹¹¹ Available at: <http://www2.epa.gov/sfbay-delta/bay-delta-action-plan>.

Geographic Program: Puget Sound

Program Area: Geographic Programs

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$25,009.8	\$28,000.0	\$29,998.0	\$1,998.0
Total Budget Authority / Obligations	\$25,009.8	\$28,000.0	\$29,998.0	\$1,998.0
Total Workyears	6.6	6.0	6.0	0.0

Program Project Description:

The Puget Sound is a designated estuary of national significance under the Clean Water Act National Estuary Program. The health and productivity of Puget Sound is a cornerstone of the region's vibrant economy and quality of life. Almost 60 percent of Washington State's 7 million people live in the Puget Sound basin. Nearly 71 percent of all jobs and 77 percent of total income in Washington State are found in the Puget Sound Basin.¹¹²

The beneficial uses of the Puget Sound ecosystem have been degraded and continue to be threatened by a growing regional population of 4.1 million people living in the 12 counties surrounding Puget Sound. About 1.5 million people live in cities and towns that directly border the waters of Puget Sound. Projections show the region's population will reach 5.4 million by 2025.¹¹³ Development and land use conversion have decreased the functioning aquatic habitat to such a degree that the 22 populations of Chinook salmon that use Puget Sound, classified as threatened in 2005 under the Endangered Species Act, remain threatened with extinction and only one of the remaining populations has shown any increase in abundance since 2006.¹¹⁴ Stormwater pollution and agricultural runoff threaten the safe harvest and consumption of shellfish across 143,000 acres of shellfish beds and is responsible for the closure of hundreds of popular swimming beaches and recreational sites annually. Tribal nations are unable to sustain their culture and way of life, because the beneficial uses of Puget Sound – upon which they depend and which are guaranteed by treaties – are increasingly imperiled.

In 2016, the Puget Sound program will focus federal resources to accelerate the protection and restoration of riparian areas that are important habitat for endangered salmon stocks. The EPA will continue to address its obligations under federal Tribal treaties by funding Puget Sound projects that support indigenous populations of shellfish, fish and other wildlife. As part of EPA's direct partnership with tribes in addressing Tribal priorities and the overall health of the Puget Sound ecosystem, the EPA Puget Sound Program funds assistance agreements with all of the 19 federally recognized Tribes in Puget Sound, three Tribal consortia, and the NW Indian Fisheries Commission. The EPA co-chairs the overall federal effort to address Tribal Treaty

¹¹²http://www.psp.wa.gov/downloads/AA2012_July/July3ActionAgendaBook1.pdf

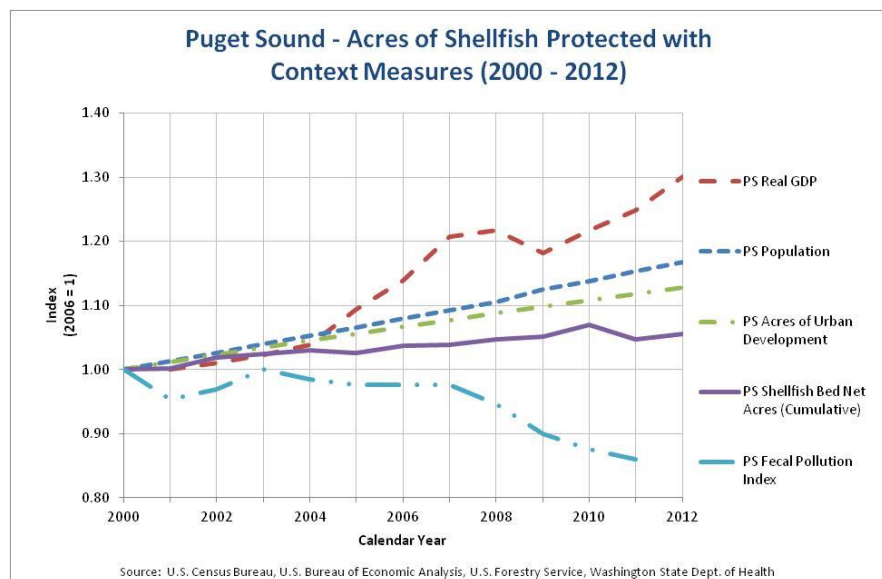
¹¹³http://www.psparchives.com/puget_sound.htm

¹¹⁴<http://www.psp.wa.gov/vitalsigns/salmon.php>

Rights at Risk,¹¹⁵ consistent with the roles assigned by the Council on Environmental Quality. In 2016, the EPA will coordinate even more closely with NOAA and USDA’s Natural Resources Conservation Service (NRCS) for work to accelerate riparian protection and restoration. Additionally, the EPA will continue to provide leadership for the Puget Sound Federal Caucus, facilitating coordination of Puget Sound work among the larger group of federal agencies in the Puget Sound basin.

The waters in this basin have provided a significant source of seafood for Tribal, as well as commercial and recreational, harvesters. In 2010, over 23 million pounds of salmon were harvested commercially by treaty Tribal and non-treaty fishers.¹¹⁶ Washington State’s aquaculture (farmed) shellfish harvest was over 24 million pounds with economic values of over \$79.5 million in 2012 making Washington State’s shellfish industry the most valuable in the nation. Adding recreational and tribal shellfish harvests increases the statewide shellfish harvest levels to over 30.6 million pounds worth more than \$125 million dollars.¹¹⁷ Shellfish farmers were responsible for more than 2,700 direct, indirect and induced jobs (non-tribal only) in 2012. Importantly, Washington state shellfish aquaculture provides family wage jobs in economically challenged rural communities. Salmon fishing and shellfish harvesting are a source of food, recreational, and commercial economic benefits. However, runoff from stormwater pollution and agricultural activities constantly threaten these valuable resources.

Despite a burgeoning regional population, rapid economic growth, and increasingly expansive urban development, as of FY 2014, the EPA’s Puget Sound Program work has resulted in over 41,000 acres of habitat protected and/or restored (cumulative from 2006), and 3,249 acres of shellfish harvest bed upgraded (cumulative from 2006). The program also has advanced Puget Sound stormwater permit and retrofit programs utilizing Low Impact Development techniques. The Puget Sound Program continues to fund and build upon water quality work that has resulted in a substantial reduction in the fecal pollution index in some of the most polluted areas of Puget Sound.



¹¹⁵ <http://nwifc.org/wp-content/uploads/downloads/2011/08/whitepaper628finalpdf.pdf>

¹¹⁶ http://www.psp.wa.gov/vitalsigns/commercial_fisheries_harvest.php

¹¹⁷ WA Department of Fish & Wildlife catch records summarized by the Pacific Shellfish Institute per correspondence with PSI Executive Director Dec 18, 2014 and 'WA State Commercial Shellfish Total Pounds & Farmgate Value' and 'Aquaculture Only' 2012.pdf

To achieve these positive ecosystem results, the Puget Sound Program has leveraged its appropriations to target three strategic areas:

1. Preventing pollution from urban stormwater runoff;
2. Protecting and restoring habitat; and,
3. Keeping open shellfish areas safe for harvesting and upgrading additional shellfish harvest areas.

The EPA's Puget Sound Program leverages federal funds with significant additional funding from state partners and other non-governmental sources. From 2011 to 2014, over \$227 million of non-federal funding, cash and in-kind services were directed to Puget Sound restoration and protection priorities.¹¹⁸ These contributions by non-federal sources highlight the importance and success of the partnership between federal, state, Tribal and nongovernmental stakeholders, working together to restore and preserve the Puget Sound.

FY 2016 Activities and Performance Plan:

In FY 2016, the Puget Sound Program will focus support on three strategic initiatives: address stormwater pollution through retrofits and low impact development projects; 2) increase the function and resiliency of riparian areas and restore floodplain ecosystem functions to both reduce flood pressure and improve habitat especially for endangered salmon species; and 3) protect and upgrade shellfish growing beds through pollution identification and correction programs (PIC) that control pathogen pollution from both septic and agricultural sources. The Puget Sound Program will use the Puget Sound Action Agenda, the long-term plan for Puget Sound basin protection and restoration, as the basis for identifying near-term actions and funding implementation strategies to achieve results for these three strategic initiatives.

In 2016, the Puget Sound Program will be implementing recommendations from a 2014 Program Evaluation conducted by the EPA's National Program Manager for the National Estuary Program.

The Puget Sound program also is building upon the strength of its grants management practices as noted in the July 2014 EPA's Office of Inspector

Community Highlight: Port Susan Shellfish Growing Area, Island County, WA

In the late 1980's the Port Susan Shellfish Growing Area in north central Puget Sound was downgraded due to poor water quality. The entire Port Susan area encompasses over 12,000 acres but only portions were historically used for shellfish growing and harvesting. Sustained efforts by local counties, communities and volunteer organizations implementing pollution identification and correction activities (PIC program) resulted in water quality improvements within the entire area. Recent evaluation of the water quality conditions within the Port Susan area in Island County, WA showed that about 150 additional acres of the area now meets the standards for an approved classification for safe shellfish harvesting. This classification became final in November 2014. The EPA Geographic Program: Puget Sound funds and National Estuary Program funds were used to support the county PIC programs and to complete a thorough pollution source evaluation around Triangle Cove which helped open the area. Overall improvements to water quality has allowed some 1,750 acres within the Port Susan growing area to be approved since 2010.

¹¹⁸ Puget Sound NEP leveraging data as reported in NEPORT for 2013.

General (OIG) report. The report¹¹⁹ found that overall the EPA Region 10 is effectively administering cooperative agreements and that the EPA is effectively monitoring project progress, outputs and outcomes, but noted that improved oversight and subaward monitoring were necessary. The EPA took recommendations from the OIG report further and worked with both the EPA Project Officers and Puget Sound assistance agreement recipients to strengthen monitoring practices that ensure that Puget Sound Program cooperative agreements are implemented effectively, transparently, and in accordance with all federal assistance agreement requirements.

In FY 2016, the Puget Sound Program will work more closely with its state and Tribal partners to target funds to the most effective areas of work. Consistent with past years, the EPA proposes to provide funding to tribes for both capacity building and for implementing priority tribal projects in the Puget Sound basin. In FY 2016, EPA will take actions to ensure that riparian buffers receive priority for funding through the Puget Sound Geographic program and through Washington's Section 319 grant funding to the extent practicable. EPA also will work with NOAA and NRCS to jointly develop a science-based approach that identifies the highest priority areas in the region for salmon habitat restoration, with the goal of using this plan to target outreach efforts and federal funding. Funding for these activities will directly benefit Tribal interests in Puget Sound.

The EPA and its Puget Sound partners have put mechanisms in place to both focus and quickly obligate federal funding and reduce unliquidated obligations. The EPA has taken steps to accelerate the expenditure of these funds and will continue to monitor unliquidated obligation status to ensure ongoing success in reducing unliquidated obligations.

In FY 2016, the program will build upon the successful projects and lines of work under the habitat, stormwater and shellfish strategic initiatives and will utilize more focused implementation strategies to help achieve the ecosystem targets (Vital Signs) identified in the Action Agenda. More specifically, activities will include:

- Restoring and protecting floodplain riparian and marine shoreline areas identified as priorities in consultation with federal, Tribal, state, and local partners. The EPA's target is to restore and protect an additional 2,500 acres in FY 2016 for a total of 45,500 habitat acres cumulative since 2006.
- Protecting existing approved shellfish harvesting areas by ensuring surrounding water quality and supporting local efforts to identify and correct sources of pathogen pollution. At the end of 2011, the Washington State Department of Health (WADOH) reported 240,000 acres with Approved classifications, and nearly 12,500 acres with Conditionally Approved classifications for commercial shellfish harvesting in Washington State marine waters. Approximately 60 percent of the state's approved harvest areas and 85 percent of the conditionally approved areas are in the Puget Sound basin.¹²⁰

¹¹⁹ www.epa.gov/oig/reports/2014/20140715-14-P-0317.pdf

¹²⁰ <http://www.doh.wa.gov/Portals/1/Documents/4400/annual-inventory.pdf> - Page 7 (Puget Sound harvest areas classified as approved for approximately 143,500 acres and conditionally approved for approximately 10,600 acres).

- Upgrading restricted and closed shellfish beds to an approved status by implementing local actions to address nonpoint source pollution - including septic and agricultural sources - that lead to improved water quality to ensure safe harvest. The Action Agenda's 2020 target for recovery of harvestable shellfish beds in Puget Sound is approximately 10,000 acres. The Puget Sound Program's FY 2016 goal is to protect human health by upgrading the harvest classifications of 5,340 cumulative acres of commercial shellfish beds since 2006. For a detailed map of Puget Sound Shellfish growing areas, please see: http://www.epa.gov/region10/images/puget_sound_shellfish_growing_areas_map_072012.JPG.
- Reducing the impact of stormwater runoff on water quality and aquatic habitats. Stormwater runoff is a leading stressor on the overall health of most of the watersheds draining into Puget Sound. Stormwater runoff pollution associated with increased development and population growth increasingly threatens the safety of shellfish harvest areas, alters the ecological functions that maintain aquatic habitats, and reduces the overall water quality and health of the Puget Sound. The EPA Puget Sound program is committed to working effectively with its state and Tribal partners to combat the negative impacts of stormwater pollution. In FY 2016, the Puget Sound Program will continue supporting ten county-level (PIC) programs and will work with local entities to develop the necessary sustaining funding to keep these programs operational into future years, to stem pollution from stormwater nonpoint sources.
- Strengthening climate resilience. The Puget Sound program is building climate resiliency into the actions and projects funded with Puget Sound assistance agreements for habitat, shellfish, and water quality. The program includes applicable regional and national climate adaptation and resiliency criteria in all applicable funding solicitations. Applications and workplans are evaluated for inclusion of climate related project design and factors to increase resiliency. Addressing ocean acidification, floodplain and riparian area protection and restoration, and improved stormwater management to protect water quality and hydrology for maintaining aquatic habitats are all examples of prioritized work in the Puget Sound Action Agenda that contribute directly to climate change resiliency.

Performance Targets:

Measure	(ps1) Improve water quality and enable the lifting of harvest restrictions in acres of shellfish bed growing areas impacted by degrading or declining water quality.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	600	1,800	4,953	3,878	7,758	4,000	4,700	5,340	Acres
Actual	1,730	4,453	1,525	2,489	3,203	3,249			

Measure	(ps3) Protect or restore acres or shoreline miles of aquatic habitat including estuaries, floodplains, marine and freshwater shorelines, riparian areas, stream habitats, and associated wetlands.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	3,000	6,500	12,363	19,063	31,818	33,818	43,006	45,500	Acres
Actual	5,751	10,062	14,629	23,818	30,128	41,006			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$18.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$1,980.0) This program change increases support for state, Tribal, and local implementation of priority projects in the Puget Sound Action Agenda. It also will support a focused acceleration of riparian protection efforts.

Statutory Authority:

Clean Water Act; Water Resources Development Act of 1996; Water Resources Development Act of 2000; Resource Conservation and Recovery Act of 1976; Comprehensive Environmental Response Compensation and Liability Act; Economy Act of 1932; Intergovernmental Cooperation Act; Clean Air Act; Safe Drinking Water Act; Toxic Substances Control Act; Federal Insecticide, Fungicide and Rodenticide Act; Pollution Prevention Act; Marine Protection, Research, and Sanctuaries Act; National Environmental Education Act.

Geographic Program: Long Island Sound

Program Area: Geographic Programs

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$3,944.9	\$3,940.0	\$2,893.0	(\$1,047.0)
Total Budget Authority / Obligations	\$3,944.9	\$3,940.0	\$2,893.0	(\$1,047.0)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The EPA supports the protection and restoration of Long Island Sound through its Long Island Sound Office, established under Section 119 of the Clean Water Act (CWA), as amended. The Sound provides feeding, breeding, nesting and nursery areas for a diversity of plant and animal life. The Long Island Sound watershed’s natural capital provides between \$17 and \$37 billion in ecosystem goods and services every year. When the Long Island Sound watershed’s ecological resources that generate this annual benefit are treated as an economic asset, the “natural capital asset value” is between \$690 billion and \$1.3 trillion.¹²¹ The EPA assists the states in implementing the Sound’s Comprehensive Conservation and Management Plan (CCMP) established under CWA Section 320. The EPA and the States of Connecticut and New York work in partnership with regional water pollution control agencies, scientific researchers, user groups, environmental organizations, industry, and other interested organizations and individuals to restore and protect the Sound and its critical ecosystems.

The CCMP¹²² was updated in 2014 and addresses ecosystem problems through ongoing programs and innovative approaches such as nitrogen trading and bubble permits. The CCMP also focuses on management of climate and human impacts on marine-dependent resources and their habitats, and ensuring the public is informed and involved in the restoration and protection of the Sound. Science-based decisions are central to addressing environmental conditions and are based on the 2014 published synthesis of scientific data and information on the Sound and its ecosystems: *Long Island Sound – Prospects for the Urban Sea*.¹²³ The new CCMP will guide partner actions through 2034. Please see <http://www.longislandsoundstudy.net> for further information.¹²⁴

¹²¹ Trillion Dollar Asset, The Economic Value of the Long Island Sound Basin, Earth Economics, August 2014.

¹²² For more information : <http://longislandsoundstudy.net/about/our-mission/management-plan/>

¹²³ Long Island Sound: Prospects for the Urban Sea, Springer Publishing, 2014, ISBN 978-1-4614-6125-8

¹²⁴ For more information:

<https://www.cfda.gov/index?s=program&mode=form&tab=step1&id=6504cc92476f05523fc836b5dc099c2f>

FY 2016 Activities and Performance Plan:

The EPA will continue to oversee implementation of the Long Island Sound Study CCMP by coordinating the cleanup and restoration actions of the Long Island Sound Study Management Conference.

In FY 2016, the EPA will focus on the following:

- Reducing the area of the seasonally impaired waters through continued emphasis on lowering the Long Island Sound basin nitrogen loads to alleviate low oxygen levels (a condition called hypoxia). Specifically, the EPA Long Island Sound Office will work with the States of New York and Connecticut to develop and implement innovative approaches to maintain and improve the nitrogen Total Maximum Daily Load (TMDL) first approved by the EPA in April 2001; the EPA will continue its efforts to include the upland states of Massachusetts, New Hampshire, and Vermont in this regulatory framework to address their nitrogen contributions from Sound tributaries;
- Coordinating priority watershed protection programs through the Long Island Sound Management Conference partners to ensure that efforts are directed toward priority river and stream reaches that affect Long Island Sound's water quality. The EPA will use the principles of its Healthy Watershed Initiative in working with partners to ensure that watershed protection and nonpoint source pollution controls will help reduce the effects of runoff pollution on rivers and streams discharging to the Sound. Restoration and protection efforts will increase streamside buffer zones as natural filters of pollutants and runoff and development of local ordinances to create and protect stream buffers;
- Supporting and funding state and local monitoring (year-round and seasonal) for water quality indicators such as biological indicators, e.g., chlorophyll *a* and environmental indicators such as dissolved oxygen levels, temperature, salinity, and water clarity. This monitoring will assist Management Conference partners in assessing environmental conditions that may contribute to impaired water quality and in developing strategies to address impairments;
- Supporting and funding the states of New York and Connecticut to coordinate the protection and restoration of critical coastal habitats to improve the productivity of tidal wetlands, inter-tidal zones, and other key habitats that have been adversely affected by unplanned development, overuse, land use-related pollution effects, and climate change, e.g., sea level rise, warming temperatures, changes in salinity and other ecological effects;
- Promoting state and local management of the 33 ecologically, scientifically, and recreationally significant Long Island Sound Stewardship areas in New York and Connecticut to support compatible public access and uses of the Sound's key land resources;
- Supporting and funding the New York and Connecticut Sea Grant College Program partners in coordinating and supporting the Long Island Sound Citizens Advisory

Committee in developing an educated population that is aware of significant environmental problems and that understands the management approach to, and their role in, addressing problems;

- Supporting and funding the State University of New York Research Foundation and the Connecticut Sea Grant College Program, to administer a program of focused scientific research into the causes and effects of pollution on the Sound’s living marine resources, ecosystems, water quality, and human uses to assist managers and public decision-makers in developing policies and strategies to address environmental, social, and human health impacts; and,
- Continuing to work with all federal, state and local Management Conference partners, and private and public stakeholders and tribes to assist them in implementing the updated CCMP for Long Island Sound.

Performance Targets:

Measure	(li5) Percent of goal achieved in reducing trade-equalized (TE) point source nitrogen discharges to Long Island Sound from the 1999 baseline of 59,146 TE lbs/day.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target		52	72	74	76	85	91.5	95	TE Pounds/Day
Actual		70	69	83	88	Data Avail 03/2015			

Measure	(li8) Restore, protect or enhance acres of coastal habitat from the 2010 baseline of 2,975 acres.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				218	420	410	135	43	Acres
Actual				537	336	410			

Measure	(li9) Reopen miles of river and stream corridors to diadromous fish passage from the 2010 baseline of 17.7 river miles by removal of dams and barriers or by installation of bypass structures.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				28	75	1.5	30	88	Miles
Actual				72.3	56	21.6			

The States of New York and Connecticut are reducing nitrogen through their innovative and nationally-recognized pollution trading and bubble permit programs. In calendar year 2013, 106 sewage treatment plants in New York and Connecticut discharged 27,148 trade-equalized pounds per day of nitrogen to Long Island Sound, a significant decrease in loads (see figure 1). This represents 35 million fewer pounds of nitrogen per year from the circa 1990s baseline from entering the Sound from treatment plants.

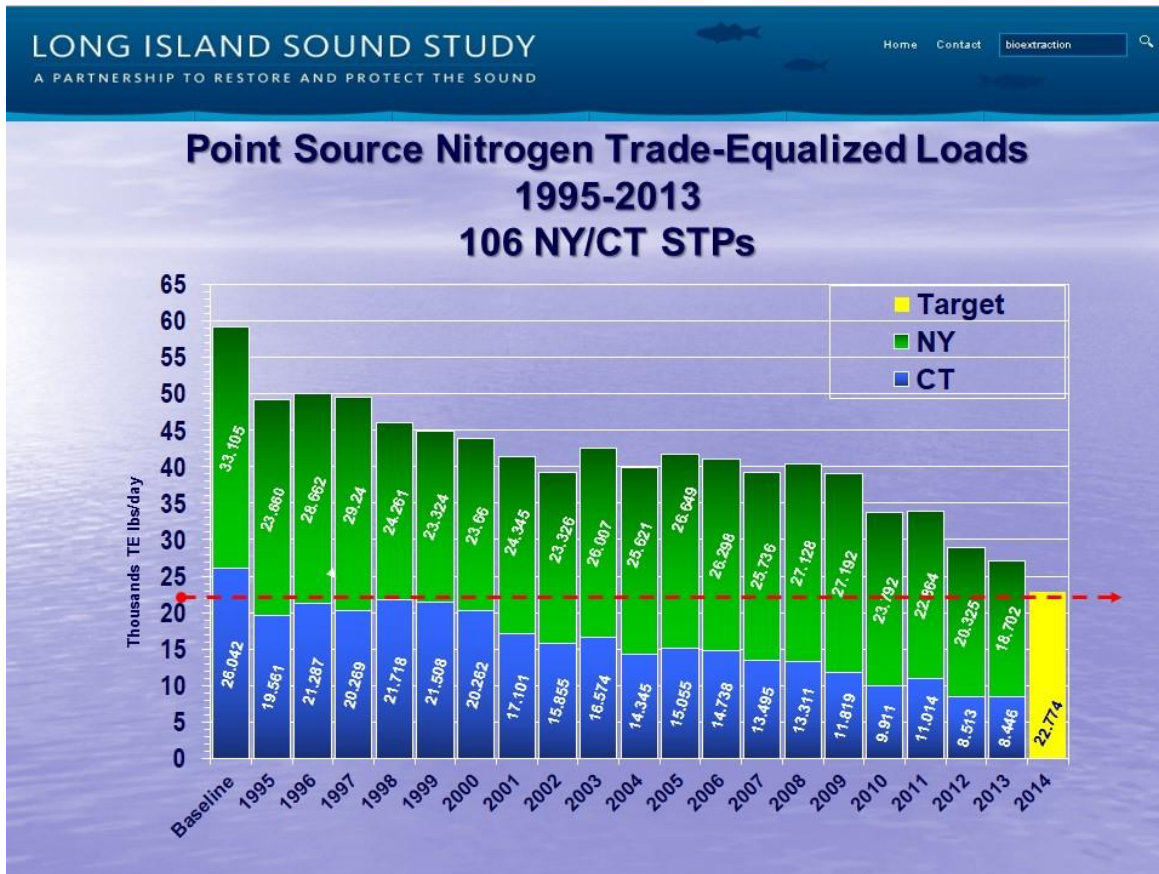


Figure 1: Long Island Sound Study

In 2014, the maximum area of hypoxia in the Sound was estimated to be 87 square miles, the third lowest recorded in 28 years of monitoring. The 5-year running average area of hypoxia is shown to be measured at 137.0 square miles, possibly linking the reduction of anthropogenic nitrogen from treatment plants to a corresponding improvement in dissolved oxygen in the Sound. However, environmental response is not necessarily linear and the sedimentary contribution of legacy nitrogen may affect the ecosystem’s response.

In FY 2014, with financial assistance from the EPA, the states restored or protected 410 acres of critical coastal habitat, and reopened 21 miles of river corridors to diadromous fish passage through construction of fishways or removal of barriers to fish passage. The EPA will work with the states, through the Long Island Sound Futures Fund Grant Program, to continue to assist in restoring and protecting critical habitat and reopening rivers to fish passage.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$1,047.0) This program change eliminates the Congressionally directed increase from the FY 2015 budget.

Statutory Authority:

Long Island Sound Restoration Act, P.L. 106-457 as amended by P.L. 109-137; 33 U.S.C. 1269.
 Long Island Sound Stewardship Act, P.L. 109-353; 33 U.S.C. 1269.

Geographic Program: Gulf of Mexico

Program Area: Geographic Programs

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$5,424.2	\$4,482.0	\$3,908.0	(\$574.0)
Total Budget Authority / Obligations	\$5,424.2	\$4,482.0	\$3,908.0	(\$574.0)
Total Workyears	12.0	11.3	11.3	0.0

Program Project Description:

The efforts of the EPA’s Gulf of Mexico Program Office (GMPO) are dedicated to the protection, restoration and enhancement of the water bodies and coastal environments associated with the greater Gulf of Mexico region. The GMPO is committed to voluntary, non-regulatory actions and solutions which are based on sound scientific and technical information as informed by our work with partners and the public.

FY 2016 Activities and Performance Plan:

In FY 2016, the GMPO performance plan continues to be directly linked to the budget and strategic plan performance measures: water quality, habitat enhancement, environmental education and community resilience. The GMPO competitively funds projects directly linked to the performance measures, and the work done in this program project is closely coordinated and complementary with ongoing Restore Council and Natural Resources Damages Assessment activities related to the Deepwater Horizon Oil Spill. The projects, programs and partnerships are all based on a regional ecosystem-based approach for the Gulf of Mexico. All technical staff directly support these efforts by providing scientific and technical expertise. The GMPO continues to seek broad participation and input from the diverse stakeholders who live, work and recreate in the Gulf Coast region. There is a strong sense of partnership due to the coordination with the working waterfront communities, academia, local and state agencies, non-profit organizations and many other partners who coordinate to improve decision-making based on the best available science.

The following are the performance activities which are directly supported by the GMPO:

Improve Water Quality

The Clean Water Act provides authority and resources that are critical to protecting and improving the water quality in the Gulf of Mexico and all waters of the United States. The GMPO implements projects and works in close partnerships which improve water and habitat quality throughout the Gulf of Mexico watershed. The GMPO funds projects which improve water quality on a watershed basis. Specifically, a water quality improvement is counted when

there is a five percent or more positive change in at least one water parameter (for example, dissolved oxygen, temperature, pH, turbidity, total suspended solids, salinity, freshwater inflow, nutrients, invasive species, pathogens, etc.)

The GMPO maintains important cross agency contacts with EPA Regional and Headquarter offices by serving on workgroups and as technical contacts in the Gulf region. Working across the EPA on common priority issues assures the continued effective implementation of core water programs, maximization of efficiency by coordinating water quality data collection activities, and reduction in project overlap. The GMPO will continue to support the Hypoxia Task Force by serving on the coordinating committee and providing direct technical support with respect to nutrient pollution reduction. The GMPO will continue robust partnerships with federal agencies, non-profit organizations, state agencies, and international partners to leverage resources throughout the Gulf of Mexico region.

Enhance and/or Protect Coastal and Upland Habitats

The wise management of critical ecosystems is widely recognized as a fundamental environmental concern throughout the Gulf Coast region. At scale, the priority issues include, but are not limited to, sediment management, marsh/habitat loss due to subsidence, the continued reduction of freshwater in-flow and climate change. In FY 2016, the GMPO will continue working in close partnership to enhance coastal ecosystems, improve sediment movement/management, restore acreage where feasible and cost-effective, and reverse the effects of long term habitat degradation. For decades, the Gulf Coast has endured extensive natural and man-made damage to key habitats such as coastal wetlands, estuaries, barrier islands, upland habitats, seagrass vegetation, oyster reefs, coral reefs and offshore habitats. The GMPO will continue working in partnership and by competitively funding projects which enhance and/or protect these valuable natural resources.

Environmental Education and Outreach

In FY 2016, the GMPO will continue to include environmental education and outreach activities in every funded project. Specifically, for every competitively funded cooperative agreement, the GMPO requires a well-defined environmental education plan as an integral project component; complete with specifically defined outputs and outcomes. All GMPO projects and work conducted in partnership will continue to target sustainable educational opportunities on Gulf-wide priorities (water quality, habitat conservation and community resilience).

Education and outreach are vital components and essential to accomplish the EPA's mission to protect human health and the environment, to serve underrepresented populations and meet the GMPO specific goals of promoting healthy and resilient coastal communities and inhabitants. All Gulf residents (including the growing population of second-home seasonal visitors) deserve the best information as it directly relates to their health, the economic vitality of their communities, and their overall quality of life.

Strengthen Community Resilience

Coastal and inland communities continuously face various natural and man-made challenges of living along the Gulf of Mexico coastline. These challenges include storm risk, land and habitat loss, depletion of natural resources, compromised water quality and economic fluctuations. In FY 2016, the GMPO will continue the robust partnerships and extensive community interactions which have and will continue to strengthen coastal and near-shore community preparedness. Through measureable actions, activities, partnerships and projects, communities Gulf-wide will be more resilient and thus better prepared for natural disasters or other situational emergencies. Communities adopting resilient actions will be measured and reported.

Performance Targets:

Measure	(xg2) Restore, enhance, or protect a cumulative number of acres of important coastal and marine habitats.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	26,000	27,500	30,000	30,600	30,600	30,600	30,800	30,800	Acres
Actual	29,344	29,552	30,052	30,248	30,306	30,319			

Measure	(xg3) Improve and/or restore water and habitat quality to meet water quality standards in watersheds throughout the five Gulf States and the Mississippi River Basin.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target								2	Watersheds (12 digit HUC)
Actual									

For FY 2016, the Gulf Program will continue to support specific actions and solutions designed to improve the environmental and economic health of the Gulf of Mexico region through cooperative efforts and partnerships.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$36.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$610.0) This program change reflects a reduction in the EPA’s ability to support specific actions and solutions which improve the environmental and economic health of Gulf Coast communities.

Statutory Authority:

Clean Water Act (CWA).

Geographic Program: South Florida

Program Area: Geographic Programs

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$2,343.5	\$1,704.0	\$1,340.0	(\$364.0)
Total Budget Authority / Obligations	\$2,343.5	\$1,704.0	\$1,340.0	(\$364.0)
Total Workyears	1.5	1.4	1.4	0.0

Program Project Description:

The backbone of the South Florida economy is tourism and clean, clear oceans, lakes, and rivers related activities such as fishing, scuba diving, swimming, sailing, lobster harvesting and other outdoor activities. A recent study revealed that ocean activities in Florida – many centered in South Florida – generated revenues of \$63 billion annually and produced nearly one million jobs.¹²⁵ Agriculture – vegetables, fruits, nurseries, sugar cane, livestock and aquaculture – is a multi-billion dollar industry for South Florida. The federal government is committed to protecting and restoring the Everglades – an extraordinary ecosystem and international treasure. South Florida has much to lose if the estuaries, lakes, rivers, and near shore waters are polluted.

The EPA’s South Florida program coordinates activities in the Florida Keys, where water quality and habitat are directly affected by the pollution from, and restoration efforts in, the Everglades. The EPA implements, coordinates, and facilitates activities, including the Clean Water Act (CWA) Section 404 Wetlands Protection Program, the Comprehensive Everglades Restoration Program, the Water Quality Protection Program for the Florida Keys National Marine Sanctuary, the Florida Keys National Marine Sanctuary Water Quality Monitoring Program, the Coral Reef Environmental Monitoring Program, the Benthic Habitat Monitoring Program, the Southeast Florida Coral Reef Initiative as directed by the U.S. Coral Reef Task Force, the Brownfields Program, and other programs. For more information, please visit: <http://www.epa.gov/region4/water/southflorida/>.

FY 2016 Activities and Performance Plan:

The EPA’s South Florida program targets efforts to protect and restore various communities and ecosystems impacted by environmental problems. In FY 2016, the EPA will focus on the following activities:

- Continue coordinating and facilitating the ongoing implementation of the Water Quality Protection Program for the Florida Keys National Marine Sanctuary, including management and funding of long-term status and trends monitoring projects (water

¹²⁵ Natural Resources Defense Council. (2006). Florida’s Coastal and Ocean Future. A Blueprint for Economic and Environmental Leadership (Second printing). <http://www.nrdc.org/water/oceans/florida/flfuture.pdf>

quality, coral reef, and seagrass) and the web-enabled data management program; http://ocean.floridamarine.org/fknms_wqpp/pages/wqpp.html

- Support the Everglades Ecosystem Assessment Program (EMAP) utilizing a probability-based design to assess the health of the Everglades' effectiveness of ecosystem restoration efforts. This long-term project initiated in 1993 documents the status and trends of phosphorus and mercury concentrations within the Everglades. The final assessment report for the 2014 sampling is due in FY 2016;
- Continue the EPA's National Environmental Policy Act and water quality coordination with the Jacksonville U.S. Army Corps of Engineers District and South Florida Water Management District with ongoing activities associated with Comprehensive Everglades Restoration Project¹²⁶ (CERP) implementation. CERP is the largest ecosystem restoration effort in the world and is currently projected to cost \$14 billion over several decades;
- Continue implementation of the Florida Keys Wastewater and Stormwater Master Plan to upgrade inadequate wastewater and stormwater infrastructure and eliminate non-functioning septic tanks, cesspits, and non-compliant wastewater facilities by FY 2016;
- Implement the 2013 Monroe County Canal Management Master Plan (CMMP) funded by the EPA in FY 2013. Monroe County has provided \$5.1 million to implement restoration technologies at eight canal demonstration pilot sites to improve water quality and habitat¹²⁷;
- The EPA provided funding for water quality / benthic habitat monitoring to document water quality changes to residential canals from remediation efforts in FY 2014. Pre-implementation data collected from impaired canals in FY 2014 and FY 2015 will be compared to post-implementation data gathered in FY 2016;
- Provide monetary and/or technical/managerial support for priority environmental projects and programs in South Florida, including:
 - Everglades Ecosystem Assessment Program;
 - Florida Keys National Marine Sanctuary Water Quality Monitoring Program¹²⁸;
 - Benthic Habitat (seagrass) Monitoring Program;
 - Florida Keys National Marine Sanctuary Coral Reef Evaluation and Monitoring Program¹²⁹; and
 - Water Quality Protection Strategy for the South Florida Ecosystem¹³⁰.

¹²⁶ For more information: <http://www.evergladesplan.org/>

¹²⁷ For more information: <http://www.monroecounty-fl.gov/index.aspx?NID=598>

¹²⁸ For more information: http://ocean.floridamarine.org/fknms_wqpp/pages/cremp.html

¹²⁹ For more information: http://ocean.floridamarine.org/fknms_wqpp/pages/cremp.html

¹³⁰ For more information:

<http://www.sfwmd.gov/portal/page/portal/xweb%20protecting%20and%20restoring/restoration%20strategies>

- Support implementation of CWA Section 404, including wetlands conservation, permitting, dredge and fill and mitigation banking strategies with U.S. Army Corps of Engineers;
- Continue collaborative efforts through interagency workgroups including: South Florida Ecosystem Restoration Task Force; Florida Bay Program Management Committee; and Florida Keys National Marine Sanctuary Water Quality Protection Program Steering Committee;
- Complete a special study project by Mote Marine Laboratory to assess the effects of mosquito control pesticides on non-targeted organisms in the Florida Keys National Marine Sanctuary. Phase I will be completed in FY 2015. Mote Marine Laboratory will continue Phase II in 2016;
- Support and fund the EPA Florida Bay study to evaluate effectiveness of sponge restoration in Florida Bay. The findings may assist in sponge restoration efforts throughout South Florida;
- Establish a Florida Keys Water Watch Program to increase citizen involvement and awareness of water quality issues; and,
- Continue the tracking of Everglades Restoration Strategies to address phosphorus pollution and National Pollutant Discharge Elimination System permits within the Everglades, including discharge limits for phosphorus that are consistent with state and federal law and federal court consent decree requirements.

Performance Targets:

Measure	(sf3) At least seventy-five percent of the monitored stations in the near shore and coastal waters of the Florida Keys National Marine Sanctuary will maintain Chlorophyll a(CHLA) levels at less than or equal to 0.35 ug l-1 and light clarity (Kd) levels at less than or equal to 0.20 m-1.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			75	75	75	75	75	75	
Actual			85.4	CHLA: 70.9; KD: 72.5	>75 (CHLA: 84.5; KD: 80.4)	CHLA = 86.0; Kd = 87.2			Stations

Measure	(sf4) At least seventy-five percent of the monitored stations in the near shore and coastal waters of the Florida Keys National Marine Sanctuary will maintain dissolved inorganic nitrogen (DIN) levels at less than or equal to 0.75 uM and total phosphorus (TP) levels at less than or equal to 0.25 uM.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			75	75	75	75	75	75	
Actual			73.6	DIN: 81; TP: 89.5	<75 (DIN: 60.0; TP: 82.3)	DIN=72.6 ; TP=87.6			Stations

Measure	(sf6) The number of Everglades Stormwater Treatment Areas (STAs) with the annual total phosphorus (TP) outflow less than or the same as the five-year annual average TP outflow, working towards the long-term goal of meeting the 10 parts per billion annual geometric mean.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target							3	3	Stormwater Treatment Areas
Actual									

The South Florida program has made significant strides in making progress toward the 2016 goal of eliminating all traditional septic tanks, cesspits and non-compliant wastewater facilities within the Florida Keys. In the late 1990s, the EPA identified improperly treated wastewater as the major source of nutrient and bacteria to the near shore waters of the Keys. As a result, the Florida Legislature mandated that Monroe County address onsite systems. To date, \$550 million has been invested in wastewater upgrades and 55,675 of the 77,404 of the total equivalent dwelling units (way of assigning wastewater fees/rates and an implementation measure) are Advanced Wastewater Treatment or Best Available Technology compliant. The EPA will also institute a revised measure of progress for tracking the status of total phosphorus in outflows from Everglades Stormwater Treatment Areas.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$8.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$302.0) This program change eliminates the Congressionally directed increase from the FY 2015 budget.
- (-\$70.0) This program change reflects a reduction in support for water quality, coral and seagrass status and trend monitoring programs used for directing implementation activities in the Florida Keys National Marine Sanctuary.

Statutory Authority:

Florida Keys National Marine Sanctuary and Protection Act of 1990; National Marine Sanctuaries Program Amendments Act of 1992; Clean Water Act; Water Resources Development Act of 1996; Water Resources Development Act of 2000.

Geographic Program: Lake Champlain

Program Area: Geographic Programs

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$1,399.0</i>	<i>\$4,399.0</i>	<i>\$1,399.0</i>	<i>(\$3,000.0)</i>
Total Budget Authority / Obligations	\$1,399.0	\$4,399.0	\$1,399.0	(\$3,000.0)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

Lake Champlain was designated as a resource of national significance by the Lake Champlain Special Designation Act (Public Law 101-596) that was signed into law on November 5, 1990, (amended in 2002). A management plan for the watershed, "Opportunities for Action," (revised in 2010) was developed to achieve the goal of the Act: to bring together people with diverse interests in the lake to create a comprehensive pollution prevention, control, and restoration plan for protecting the future of the Lake Champlain Basin.

The EPA's efforts to protect Lake Champlain support the successful interstate, interagency, and international partnerships undertaking the implementation of the Plan. "Opportunities for Action" addresses various threats to Lake Champlain's water quality, including phosphorus loadings, invasive species, and toxic substances.¹³¹ The goals of Opportunities for Action include, but are not limited to:

- Reduce phosphorus inputs to Lake Champlain to promote a healthy and diverse ecosystem and provide for sustainable human use and enjoyment of Lake Champlain;
- Reduce contaminants posing risks to public health and the Lake Champlain ecosystem;
- Maintain resilient and diverse communities of fish, wildlife, and plants;
- Prevent the introduction, limit the spread, and control the impact of non-native aquatic invasive species to preserve the integrity of the Lake Champlain ecosystem;
- Identify potential changes in climate and develop appropriate adaptation strategies to minimize adverse impacts on Lake Champlain's ecosystem and socioeconomic resources; and,
- Promote healthy and diverse economic activity and sustainable development principles while improving water quality and conserving natural and cultural heritage resources.

¹³¹ For additional information see:
<http://www.epa.gov/NE/eco/lakechamplain/index.html>
<http://www.lcbp.org>
<http://www.cfda.gov>

A Healthy Lake Contributes to a Healthy Economy in Vermont and New York

The Lake Champlain Basin is home to more than 600 thousand people and draws millions of visitors. The Lake Champlain Basin Program recognizes the importance of healthy natural resources to the Basin's people, its industries, and the economy as a whole. In particular, recreational activities on Lake Champlain depend upon a clean, healthy ecosystem and are an integral factor for the region's economy. For example, it has been estimated that total tourist expenditures within the Lake Champlain Basin were \$3.8 billion in 1998-1999, with roughly 71 percent in the Vermont portion of the Basin (\$2.7 billion) and 29 percent in the New York portion (\$1.1 billion). Fishing-related expenditures were estimated at \$204 million in 1997 for the Basin. In 1997, the owners of 98 fishing-related businesses near Lake Champlain estimated that \$5.6 million of their total income was from anglers using Lake Champlain.¹³² Bird and other wildlife viewing activities generated more than \$122 million in 2006.¹³³

FY 2016 Activities and Performance Plan:

Federal, state, provincial, and local partners will continue addressing high levels of phosphorus by implementing priority actions identified in Opportunities for Action to reduce phosphorus loads from point, urban, and agricultural nonpoint sources.¹³⁴ Additionally, the Vermont Phosphorus Total Maximum Daily Load (TMDL) for Lake Champlain will be completed by the EPA in the summer of 2015. The Vermont Phosphorus TMDL and associated reasonable assurance package developed by the State of Vermont will set the framework for FY 2016 activities that need to be implemented to reduce nonpoint sources of phosphorus and meet the load allocations specified in the TMDL. Similarly, the waste load allocations in the TMDL will be instrumental in guiding FY 2016 activities for point sources. The EPA remains committed to supporting implementation of the Lake Champlain TMDL, and will work with federal and state partners to leverage the federal investment.

Community Highlight: Vermont Youth Conservation Corps (VYCC)

The EPA Lake Champlain Basin Program funds were awarded to the VYCC to restore streambanks of Lake Champlain tributaries. The VYCC restored 250 feet of streambank and remove approximately 3 tons of debris in the Lake Champlain watershed. Additionally, they restored over 250 feet of streambank along Allen Brook by installing 21 fascines, 280 live stakes, and maintaining over 3,000 willow plants. Restoring streambanks of Lake Champlain tributaries helps to reduce the nonpoint pollution, including phosphorus. This is one example of the type of projects that will be accomplished using the FY 2016 requested funds.

Although Vermont continues to make progress in reducing phosphorus inputs to Lake Champlain, there is more work to be done to meet Water Quality Standards. Specifically, Vermont must reduce its current phosphorus load by 190 metric tons per year. This will require continued efforts in FY 2016 and beyond.

¹³² *People and Economy Lake Champlain Atlas, Economics of the Basin* - http://atlas.lcbp.org/HTML/so_econ.htm.

¹³³ Lake Champlain Basin Program, Opportunities for Action Database. <http://plan.lcbp.org/ofa-database/chapters/introduction>.

¹³⁴ The Phosphorus Total Maximum Daily Load for the Vermont portion of Lake Champlain is currently being revised. Additional information will be available in FY 2015.

Reducing Point Source Phosphorus Inputs to Lake Champlain

Despite an 85 percent decline in phosphorus loads from wastewater treatment facilities' discharge since 1991 (Figure 1), priority actions to reduce phosphorus loads from point sources must continue. These actions include, but are not limited to ensuring that facilities' permits remain

consistent with the Clean Water Act and necessary upgrades to treatment facilities are completed.

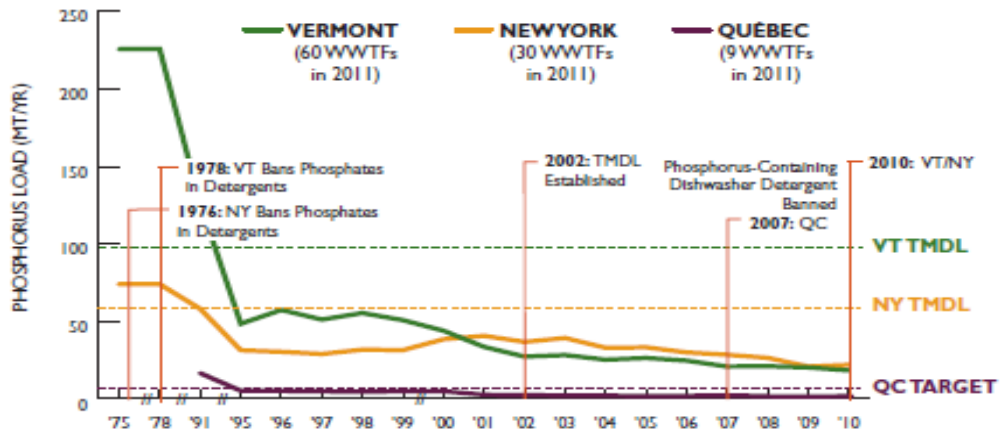


Figure 1: Wastewater Treatment Facilities Phosphorus Loads

Reducing Nonpoint Source Phosphorus Inputs to Lake Champlain

Substantial reductions in nonpoint phosphorus runoff are required in both agricultural and developed lands in order to meet targets for a clean Lake Champlain (Figure 2). Developed lands contributed about 46 percent of the phosphorus runoff Basin-wide in 2001, and agricultural lands contributed about 38 percent.¹³⁵

Figure 2 illustrates the significant challenges faced with nonpoint source contributions of phosphorus from developed and agricultural lands, and increasing flows, especially those occurring during extreme storm events. Priority actions to be implemented in 2016 addressing nonpoint source contributions of phosphorus from developed lands include, but are not limited to: 1) assessing the effectiveness of stormwater ordinances; 2) ensuring that phosphorus loads associated with new development are minimized through practices such as Low Impact Development, retrofit strategies, and innovative stormwater controls; and 3) assessing the effectiveness of local stormwater utilities. Priority actions addressing agricultural

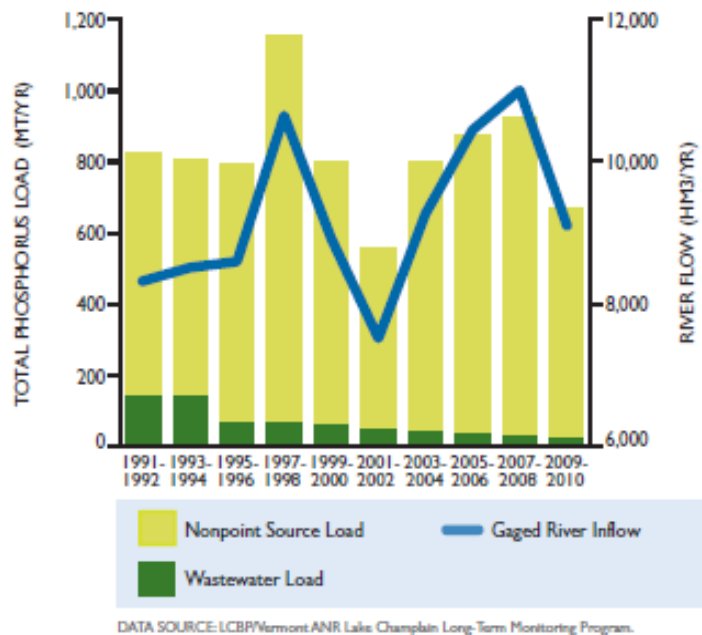


Figure 2: Nonpoint & Point Source Phosphorus Loads vs Flow

¹³⁵ Troy et al. 2007 in Lake Champlain Basin Program 2012, State of the Lake Report.

nonpoint source contributions of phosphorus include continued research to determine the efficiency of agricultural Best Management Practices. Results from this work will help direct resources to the most effective practices that reduce runoff and associated nutrient and sediment losses. Additionally, through small grants, phosphorus loads from agricultural nonpoint sources can continue to be reduced through the implementation of Best Management Practices and Nutrient Management Plans.

Tracking Implementation and Adaptive Management Framework

Federal, state, and provincial partners will develop and implement an adaptive management framework to evaluate the results of management efforts in the Lake Champlain Basin based on water quality and other ecosystem indicators. This framework will evaluate phosphorus Total Maximum Daily Load (TMDL) allocations through quantitative methods. The adaptive management plan will include current and future TMDL implementation scenarios and identify cost-effective alternatives to attain TMDL allocations.

Invasive Species Prevention

Aquatic invasive species are non-native species that harm the environment, economy, or human health, and include aquatic plants, animals, and pathogens. A continued priority will be to prevent the introduction, limit the spread, and control the impact of aquatic invasive species. Work with partners will continue in FY 2016 to contain the spread of the Spiny Water Flea and continue to monitor water chestnut and reduce its density and distribution.

Toxic Cyanobacteria

Ongoing work will continue to develop new ways to understand the high seasonal concentrations of toxic cyanobacteria, report on its potential health impacts, and provide necessary information to the health departments of New York and Vermont to close beaches, protect drinking water intakes, or take other actions.

The Lake Champlain Program will also:

- Continue the Long-Term Water Quality and Biological Monitoring Program;
- Develop new approaches for urban and agricultural stormwater control with state partners; and,
- Implement recommendations from climate change studies to reduce impacts on water quality.

Performance Targets:

Work under this program supports the Protect and Restore Watersheds and Aquatic Ecosystems objective. There are no performance targets for this program. However, the goals and tasks in the “Opportunities for Action”¹³⁶ plan provide a framework for the Lake Champlain Basin Program’s performance targets. Particular targets include reducing phosphorus levels, toxic contaminants and pathogens, maintaining and restoring healthy wildlife, fish and plant communities, and preventing the introduction and spread of aquatic invasive species.

¹³⁶ See <http://plan.lcbp.org/>

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$3,000.0) This program change eliminates the Congressionally directed increase from the FY 2015 budget.

Statutory Authority:

1909 The Boundary Waters Treaty; 1990 Great Lakes Critical Programs Act; 2002 Great Lakes and Lake Champlain Act; Clean Water Act; North American Wetlands Conservation Act; U.S.-Canada Agreements; National Heritage Areas Act of 2006; Water Resources Development Act of 2000 and 2007.

Geographic Program: Other

Program Area: Geographic Programs

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$4,374.7	\$7,393.0	\$6,887.0	(\$506.0)
Total Budget Authority / Obligations	\$4,374.7	\$7,393.0	\$6,887.0	(\$506.0)
Total Workyears	6.7	5.0	4.9	-0.1

Program Project Description:

The EPA targets efforts to protect and restore various communities and ecosystems impacted by environmental problems. Under this program, the agency develops and implements approaches to mitigate diffuse sources of pollution and cumulative risk for geographic areas.

The Northwest Forest Program

The Northwest Forest Program supports a targeted agency effort to participate in interagency and intergovernmental efforts that coordinate and leverage resources for water quality and drinking water efforts in seven¹³⁷ Western states. The program pursues collaborative efforts that conserve and restore water quality on forest and range lands as alternatives to traditional regulatory and enforcement approaches. It provides technical and facilitation support for local and community-based watershed restoration and drinking water conservation efforts.

The Northwest Forest Program addresses water quality impairments in forested watersheds and works to improve the quality of surface water so that drinking water/source water protection goals are met. The EPA is working with the Forest Service and the State of Washington to finalize and implement a TMDL implementation strategy for all temperature-impaired waters on the Olympic, Mount Baker-Snoqualmie, and Gifford Pinchot National Forests. In Oregon, the EPA is working with local, state and other federal agencies to develop TMDLs along Oregon's coast which include management measures that will address forestry related water quality impairments and support the state's Coastal Non-Point Pollution Control Program. In Idaho, the EPA is providing technical support to state agencies engaged in implementing newly updated riparian rules for forestry. These efforts will result in long term benefits to water quality and fisheries. Northwest Forest Program dollars also support the EPA efforts to inform management in key source water areas. This is critical because in Oregon and Washington, 40 to 90 percent of the land areas of individual national forests west of the Cascade Range crest are in municipal watersheds.

¹³⁷ California, Idaho, Montana, Nevada, Oregon, Utah, and Washington.

In addition the Program supports monitoring of watershed conditions across 72 million acres of forest and rangelands in the Northwest. The Northwest Forest Program funding allows the EPA to provide critical support to the Aquatic Riparian Effectiveness Monitoring Program and the Pacfish/Infish Biological Opinion Monitoring Program. These are the only regional scale watershed monitoring programs in place in the Pacific Northwest and they play a key role in determining how riparian areas on 72 million acres of federal land should be managed. These areas are critical for aquatic/riparian habitat, ecosystem function (connectivity) and water quality.

Funding for the Northwest Forest Program helps the EPA to respond to Tribal trust and treaty responsibilities. The EPA staff are key to protection and restoration of watersheds important to tribes. The EPA has tribal trust responsibilities in the Northwest related to tribes reliant on salmon and shellfish.

The Lake Pontchartrain Basin Restoration Program

The Pontchartrain Basin, headwaters of Lake Pontchartrain, is known for its slow-flowing rivers and bayous, tranquil swamps, and lush hardwood forests, and provides essential habitat for countless species of fish, birds, mammals, reptiles, and plants. The famous wetlands and marshes surrounding the Basin's waters provide a beautiful setting for wildlife and are the heart of the region's commercial and recreational fisheries. The Pontchartrain Basin also is the center of southeastern Louisiana's unique cultural heritage. With almost 1.2 million¹³⁸ residents, including rural farming communities, metropolitan New Orleans, and the fishing, shrimping, crabbing, and oyster industries, the area is brimming with a diversity of people bound by a common interest: the desire for clean and healthy waters in the Pontchartrain Basin. The Basin comprises over 10 thousand square miles of land in 16 Louisiana parishes and four Mississippi counties.¹³⁹ According to the Louisiana Agricultural Center Research and Extension, the combined total value in these parishes in 2011 for production of agriculture, forestry, fisheries and wildlife is over \$800 million.¹⁴⁰ Much of this production requires adequate quantity and quality of water. All of these lands drain into rivers and bayous, which empty into Lake Pontchartrain and its connecting sister lakes, Maurepas and Borgne.

Community Highlight: Lake Pontchartrain

The Pontchartrain Restoration Program (PRP) was established in the late 1990's to enhance the ecology of the entire 10,000 square mile Pontchartrain Basin including its water quality, habitats, and coast. During the past 12 years, the PRP has provided over \$20 million funding 137 projects to address water quality, habitat, and coastal issues in 13 Louisiana parishes. During this period, water quality has improved to such a degree that the 630 square mile Lake Pontchartrain and segments of the Bogue Falaya, Tangipahoa, and Tchefuncte Rivers have been removed from the 303(d) Impaired Water Bodies list. The PRP continues to champion cooperation and partnerships between public and private entities on the local, regional, state, and federal levels.

¹³⁸ The University of New Orleans. <http://www.uno.edu/news/2012/New-Orleans-Metro-Area-Population-Now-at-87.5-of-Pre-Katrina-Level.aspx>. Available December 2014.

¹³⁹ 2010 U.S. Census Bureau. <http://www.census.gov/popfinder/>.

¹⁴⁰ Louisiana Ag Center Research and Extension. <http://www.lsuagcenter.com/agsummary/archive/2011/Parish-Totals/2011ParishTotals.pdf>.

The Lake Pontchartrain Basin Restoration Program, through a collaborative and voluntary effort, strives to restore ecological health by developing and funding restoration projects within the sixteen parishes in the Basin. The program continues to support the efforts of the Lake Pontchartrain Basin Foundation to restore and preserve the water quality, coast, and habitats of the entire Lake Pontchartrain Basin. The Lake Pontchartrain Basin Foundation (LPBF) conducts sampling of the lake and tributary water quality to support related scientific and public education projects.

Southeast New England Coastal Watershed Restoration Program (SNECWRP):

Southeast New England (from Westerly, RI, to Pleasant Bay, MA) faces environmental challenges that are both unique and representative of broader national issues. The region's coastal watershed problems include rivers hydrologically disconnected by dams and restrictions, drained and filled wetlands, urbanization struggling with centuries-old infrastructure, as well as excess nutrient (nitrogen) pollution from wastewater, stormwater runoff, and atmospheric deposition. Excess nutrients have contributed to severe water quality problems including algal blooms, low dissolved oxygen conditions, fish kills, impaired benthic communities, and habitat loss (sea grass and salt marsh) in the estuaries and near-coastal waters of this region. The impacts of climate change, especially the likelihood of extreme weather events and increased precipitation, will further stress these systems in coming years. Yet these same threatened resources are key to recreation and tourism that represent major economic sectors in Rhode Island and Massachusetts. In these two states, estuary and coastal regions comprise an average of more than 90 percent of the population and the states' economies.¹⁴¹ Travel and tourism in Rhode Island generate more than \$2 billion for the state's economy.¹⁴² In Cape Cod, tourism represents the largest segment of their economic base (accounting for 43 percent).¹⁴³

Community Highlight: Barnstable, MA and Chatham, MA

SNECWRP has provided technical assistance to design two innovative nitrogen-reducing stormwater BMPs in the towns of Barnstable and Chatham on Cape Cod, both of which include waters listed as impaired for nutrients. At least one of these sites, possibly both, will proceed to full construction. The goal is to demonstrate and test the effectiveness of these kinds of BMPs in highly constrained urban locations with shallow depth to groundwater; post-installation monitoring will be an important component of the project. If shown to be effective, use of these types of BMPs will be highly valuable for managing stormwater nutrients not only on Cape Cod, but also across similar coastal watersheds.

The Southeast New England Coastal Watershed Restoration Program draws upon stakeholders and their networks to strategically direct resources to visible, high-impact projects focused on resiliency that will increase the efficiency of regional restoration efforts, enhance the impact of local restoration projects, and limit unnecessary duplication of efforts. The goal is to:

- invest in regionally significant and/or landscape-scale restoration opportunities;

¹⁴¹ *The Economic and Market Value of Coasts and Estuaries: What's At Stake?* by Linwood Pendleton, Page 44; [Restore America's Estuaries | The Economic Value of Coasts & Estuaries](#).

¹⁴² *The 2012 Briefing Book from Grow Smart Rhode Island*, page 10 <http://www.growsmartri.org/wp-content/uploads/2012/08/gsri-2012-briefing-book.pdf>.

¹⁴³ *The Cape Cod Chamber of Commerce website* [Cape Cod Chamber of Commerce - Cape Cod News and Events](#).

- integrate restoration opportunities across multiple agencies and organizations;
- develop and adopt innovative, cost-effective restoration and protection practices, as well as new regulatory, economic, and technology approaches;
- develop regional approaches for addressing sources and impacts of watershed degradation and fostering watershed resiliency; and,
- improve technology transfer and delivery of restoration programs across the region.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA and partner agencies will protect and restore communities and ecosystems impacted by sources of pollution. These collaborative and transparent approaches will decrease the cumulative ecological risk for geographic areas. The EPA's FY 2016 efforts will focus on the following:

Northwest Forest

In FY 2016, the EPA will request \$939 thousand, including support for 4.9 FTE, in the Northwest Forest Program for the following activities:

- Continue stream reach sampling on 643 stream reaches and watershed condition/trend monitoring in 510 sub-watersheds in California, Oregon, Idaho, Montana, and Washington;
- Use remote sensed data and Geographic Information Systems data layers and field data to support a trend assessment on 5,679 sixth field watersheds¹⁴⁴ in Oregon, Washington, Northern California, Montana, Idaho, Nevada, and Utah;
- Utilize upslope analysis, in-channel assessments, emerging research, and decision support models to inform management decisions and refine future monitoring efforts;
- Compile temperature and macroinvertebrate data and maintain approximately 530 year-round temperature monitoring stations to support state water quality and aquatic habitat reporting, including 303(d) listings;
- Complete/utilize field reviews of grazing activities and evaluate stream and riparian conditions to inform necessary management changes;
- Refine shade models to assist managers in prioritizing restoration opportunities to address stream temperature and sediment issues;
- Utilize aquatic monitoring to detect invasive species in streams and riparian areas;
- Assist the state of Oregon in the ongoing development of Total Maximum Daily Loads and Best Management Practices for forestry practices in five Oregon coastal basins.
- Provide technical support to the State of Idaho and to Indian tribes as they move forward with implementation of forest practice rule revisions related to stream shading;
- Address sediment and temperature impairments in forested watersheds. Sediment and temperature impairments affect key fish and shellfish operations in the Northwest. Commercial and recreational fishing salmon fishing has in recent years generated an

¹⁴⁴ A sixth field watershed is a hydrological unit. Watersheds in the United States were delineated by the U.S. Geological Survey using a national standard hierarchical system based on surface hydrologic features and are classified into the following types of hydrologic units: First-field (region); Second-field (sub-region); Third-field (accounting unit); Fourth-field (cataloguing unit); Fifth-field (watershed); and Sixth-field (sub-watershed). For more information visit: <http://water.usgs.gov/GIS/huc.html>.

estimated 62 thousand jobs and more than \$1 billion per year in economic income to the Pacific Northwest and Northern California.¹⁴⁵ Shellfish growers contribute \$110 million a year to the Pacific coast economy;¹⁴⁶

- Inform management in key source water areas with the objective of ensuring production and delivery of clean and sustainable water while achieving economic efficiencies. Effective management of forest cover in source water areas can decrease drinking water treatment and chemical costs by 20 percent;¹⁴⁷
- Engage in an interagency forum at the executive and management levels for Washington, Oregon, and California and a similar forum for the interior Columbia Basin.¹⁴⁸ These two broad-scale collaborative efforts address policy, management, and technical natural resource issues that are key to water quality and drinking water protection; and,
- Engage in collaborative efforts including the Oregon Watershed Enhancement Board and Collaborative Forest Landscape Restoration Projects. These collaborative efforts are at the forefront of efforts to conserve and restore water quality using alternatives to traditional regulatory and enforcement-related approaches.

Lake Pontchartrain

The program will work to restore the ecological health of the Lake Pontchartrain Basin. In FY 2016, the EPA will request \$948 thousand in the Lake Pontchartrain Basin Program for the following activities:

- Continuing implementation of the Lake Pontchartrain Basin Program Comprehensive Management Plan¹⁴⁹ and Comprehensive Habitat Management Plan to support:
 - Planning and design of consolidated wastewater treatment systems to support sustainable infrastructure;
 - Repair and replacement studies to improve existing wastewater systems; and
 - Investigation and design of stormwater management systems.
- Conducting water quality monitoring outreach and public education projects that address the goals of the Lake Pontchartrain Basin Program Comprehensive Management Plan to:
 - Improve the management of animal waste lagoons by educating and assisting the agricultural community on lagoon maintenance techniques;
 - Protect and restore critical habitats and encourage sustainable growth by providing information and guidance on habitat protection and green development techniques; and,
 - Reduce pollution at its source and mitigate any impacts to Lake Pontchartrain from the past major oil spill.

¹⁴⁵ Figures from an independent economic study done by the Pacific Rivers Council (January, 1992), *The Economic Imperative of Protecting Riverine Habitat in the Pacific Northwest*. This study was based on official federal salmon harvest figures for the 1988 baseline year -- catch figures which were already far below the productive capacity of prior years, reduced largely due to widespread habitat loss, including wetlands losses regionwide, which reduced the number of juvenile salmon able to be produced by damaged watersheds.

¹⁴⁶ Pacific Coast Shellfish Growers Association <http://www.pcsqa.net/farming-science/economic-benefits/>

¹⁴⁷ Ernst, Caryn. 2004. *Protecting the Source*. Published by the Trust for Public Land and American Water Works Association. Available at http://www.tpl.org/sites/default/files/cloud.tpl.org/pubs/water-protecting_the_source_final.pdf. Accessed July 25, 2012.

¹⁴⁸ Idaho, Montana, Wyoming, Utah, Eastern Oregon/Washington.

¹⁴⁹ <http://www.saveourlake.org/management-plan.php>.

Southeast New England Coastal Watershed Restoration Program (SNECWRP)

The Southeast New England Coastal Watershed Restoration Program will continue serving as the hub of a collaborative strategy to protect, enhance, restore, and improve the resilience of the coastal watersheds of Southeast New England to withstand and/or recover from harmful environmental impacts, and sustain its health and the provision of ecosystem services into the future.

In FY 2016, the EPA will request \$5 million in technical assistance, grants, and/or contracts to support large-scale proposals with a focus on spurring investment in regionally significant and/or landscape-scale restoration opportunities, more fully integrating restoration actions, promoting policy and technology innovation and encouraging ecosystem (water quality and habitat) restoration at regionally significant scales. Specific activities include:

- Investment in regionally significant and/or landscape-scale restoration opportunities that address habitat restoration, water quality (nutrients, stormwater, nonpoint source pollution, etc.), climate change, and management of cumulative impacts;
- Collaborative partnering with the Narragansett Bay and Buzzards Bay National Estuary Programs as well as the states of Rhode Island and Massachusetts, the Cape Cod Commission and other Cape organizations, and other key stakeholders to identify, test, and promote approaches that can be replicated across Southeastern New England, with an initial focus on nutrients and stormwater;
- Funding and oversight of pilot projects to demonstrate successful restoration or promote innovative technology to accelerate ecosystem restoration and to avoid or reduce nutrient impacts;
- Leveraging for efficiency and effectiveness by coordinating operations, resources, and funding principles among restoration partners, including federal and state agencies;
- Capacity-building of small or emerging organizations to actively participate in implementing large scale restoration projects;
- Promotion of regional and/or partnership arrangements among municipalities for addressing stormwater and nutrient issues;
- Technical assistance to all organizations for project planning and design; and,
- Incorporation of assessment and adaptive management feedback and mechanisms to improve the next generation of projects.

Performance Targets:

Work under these programs supports the Protect and Restore Watersheds and Aquatic Ecosystems objective. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$32.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$55.0 / -0.1 FTE) This program change reflects a reduction in collaborative efforts that conserve and restore water quality on forest and range lands in seven western states.

- (-\$483.0) This program change eliminates the Congressionally directed increase from the FY 2015 budget.

Statutory Authority:

Lake Pontchartrain Basin Restoration Act of 2000, codified as Clean Water Act §121, 33 U.S.C. §1273, Clean Water Act Section 104(b)(3).

Program Area: Homeland Security

Homeland Security: Communication and Information

Program Area: Homeland Security

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$4,073.4	\$3,771.0	\$4,142.0	\$371.0
Total Budget Authority / Obligations	\$4,073.4	\$3,771.0	\$4,142.0	\$371.0
Total Workyears	11.3	11.7	11.7	0.0

Program Project Description:

The White House, Congress, and the Department of Homeland Security (DHS) have defined their expectations of the EPA in the event of a homeland security incident through a series of statutes, presidential directives, and national plans. The EPA uses the Homeland Security Collaborative Network (HSCN), a cross-agency leadership group, to support its ability to implement this broad range of homeland security responsibilities, ensure consistent development and implementation of homeland security policies and procedures, avoid duplication, and build a network of partnerships. The EPA's homeland security program also capitalizes on the concept of "dual-benefits," so that its homeland security efforts enhance and integrate with the EPA's core environmental programs that serve to protect human health and the environment.

Timely and effective environmental information is a key factor in the protection of human health and the environment during an emergency. Homeland security information technology efforts are closely coordinated with the agencywide information security and infrastructure activities, which are managed in the Information Security and Information Technology (IT)/Data Management programs. These IT support programs also enable video contact among localities, headquarters, Regional Offices, and laboratories in emergency situations.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA's Homeland Security Program will:

- Support federal, state, Tribal, and local efforts to prevent, protect, mitigate, respond to, and recover from natural disasters, acts of terrorism, and other emergencies by providing leadership and coordination across EPA program offices and regions.
- Ensure a coordinated approach to the EPA's homeland security activities and resources that are in unison with government-wide, homeland security priorities and requirements.

- Focus on maintaining the agency’s level of preparedness to respond to and recover from a significant event through maintenance of personnel and equipment capabilities and capacities.
- Focus on filling critical knowledge and technology gaps that may be essential for an effective EPA response, including working with our interagency partners to define collective capabilities and resources that may contribute to closing common homeland security gaps.
- Ensure that interagency intelligence-related planning and operational requirements are met. This will be achieved through coordination with the U.S. Intelligence Community, including the Office of the Director for National Intelligence, the Department of Homeland Security, the Central Intelligence Agency, the National Security Agency, the Federal Bureau of Investigation, the Department of Defense, and the White House National Security Council Staff.
- Phased implementation of Executive Order 13587 (*Structural Reforms to Improve the Security of Classified Networks and the Responsible Sharing and Safeguarding of Classified Information*) to meet the main pillars of classified information protection with a focus on the development of an Insider Threat program to address and mitigate threats to national security. Insider Threat program implementation will begin with agencywide training and awareness; and the design, development, and maintenance of computer-based secure data capture and reporting capabilities (web pages/homepages) and other computer-based data repositories to support the establishment of the Insider Threat HUB.
- Track emerging national/homeland security issues, through close coordination with the U.S. Intelligence Community, to anticipate and avoid crisis situations and target the agency’s efforts proactively against threats to the United States.

The EPA’s FY 2016 resources support national cybersecurity efforts through monitoring across the agency’s IT infrastructure to detect, remediate, and eradicate malicious software or Advanced Persistent Threats (APT) from the EPA’s computer and data networks and through improved detection capabilities. The EPA will enhance internal Computer Security Incident Response Capability (CSIRC) to ensure rapid identification and reporting of suspicious activity and will increase training and awareness of cybersecurity threats. EPA personnel are active participants in Government Forum of Incident Response Teams (GFIRST), a DHS-led group of experts from incident response and security response teams. Indicators and warnings are shared between the EPA incident responders and their cleared counterparts in other agencies and with the Intelligence Community.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$25.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$495.0) This program change increases resources to support and coordinate homeland security efforts across the agency.
- (-\$99.0) This program change reflects efficiencies gained through the coordination of homeland security IT efforts across the agency.

Statutory Authority:

Homeland Security Presidential Directives, 5 U.S.C. 101 et seq. HSPD 1 – 25 and National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 42 U.S.C. 3231 et seq. – Sections 300, 300.1, 300.2, 300.3, 300.4, 300.5, 300.6, and 300.7, and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9606 et seq. – Sections 101-128, 301-312, and 401-405, and Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6962 et seq. – Sections 1001, 2001, 3001, and 3005, and Safe Drinking Water Act (SDWA) Amendments, 42 U.S.C. 300 et seq. – Sections 1400, 1401, 1411, 1421, 1431, 1441, 1454, and 1461, and Clean Water Act (CWA), 33 U.S.C. 1314 et seq. – Sections 101, 102, 103, 104, 105, 107, and Clean Air Act (CAA) Amendments, 42 U.S.C. 7401 et seq. – Sections 102, 103, 104, and 108, and Toxic Substances Control Act (TSCA), 15 U.S.C. 2611 et seq. – Sections 201, 301, and 401, and Federal Insecticide Fungicide and Rodenticide Act (FIFRA), 7 U.S.C. 36 et seq. – Sections 136a – 136y and Bio Terrorism Act of 2002, 42 U.S.C. 201 et seq. – Sections 303, 305, 306, and 307 and Homeland Security Act of 2002, 116 U.S.C. 2135 et seq. – Sections 101, 102, 103, 201, 202, 211-215, 221-225, 231-235, and 237 and Post-Katrina Emergency Management Reform Act, 6 U.S.C. 772 et seq. – Sections 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, and 513, Defense Against Weapons of Mass Destruction Act, 50 U.S.C. 2302 et seq. (Title XIV of Public Law 104-201), and Food Safety Modernization Act, 21 U.S.C. 301 et seq. – Section 208.

Homeland Security: Critical Infrastructure Protection

Program Area: Homeland Security
Goal: Protecting America's Waters
Objective(s): Protect Human Health

Goal: Addressing Climate Change and Improving Air Quality
Objective(s): Improve Air Quality

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance
Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Science & Technology	\$10,207.3	\$10,324.0	\$11,871.0	\$1,547.0
<i>Environmental Program & Management</i>	<i>\$648.0</i>	<i>\$964.0</i>	<i>\$1,014.0</i>	<i>\$50.0</i>
Total Budget Authority / Obligations	\$10,855.3	\$11,288.0	\$12,885.0	\$1,597.0
Total Workyears	23.8	23.1	23.1	0.0

Program Project Description:

This program includes EPA's efforts to coordinate and support the protection of the nation's critical water infrastructure from terrorist threats and all-hazard events through effective information sharing and dissemination.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to build capacity to identify and respond to threats to critical national water infrastructure by:

- Providing access to information sharing tools and mechanisms that provide timely information on contaminant properties, water treatment effectiveness, detection technologies, analytical protocols, and laboratory capabilities;
- Providing tools and supporting effective communications between the water sector, its communities, and other critical interdependent sectors, such as energy and emergency services;
- Continuing to develop materials, under the Community Based Water Resiliency Initiative, which aim to elevate the recognition of the importance of water infrastructure in the response, recovery, and resiliency of a community, one of the principal lessons learned from Hurricane Sandy;

- Supporting effective communication conduits to disseminate threat and incident information and to serve as a clearinghouse for sensitive information;
- Promoting information sharing between the water sector and environmental professionals, scientists, emergency services personnel, law enforcement, public health agencies, the intelligence community, and technical assistance providers. Through this exchange, water systems can obtain up-to-date information on current technologies in water security, accurately assess their vulnerabilities to terror acts, and work cooperatively with public health officials, first responders, and law enforcement officials to respond effectively in the event of an emergency;
- Providing water utilities, of all sizes, access to a comprehensive range of important materials, including the most updated information, tools, training, and protocols designed to enhance the security, preparedness, and resiliency of the water sector; and
- Ensuring that water utilities receive timely and informative alerts about changes in the homeland security advisory level or about regional and national trends in certain types of water-related incidents. For example, should there be types of specific, water-related incidents that are recurring, the EPA, in coordination with DHS and other appropriate agencies, needs to alert the utilities of the increasing multiple occurrences or “trends” of these incidents.

Effective information sharing protocols allow the water sector not only to improve their understanding of the latest water security and resiliency protocols and threats, but also to reduce their risk by enhancing their ability to prepare for an emergency. The FY 2016 request level for the information sharing networks is \$1.0 million.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$9.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$41.0) This program change increases funding for additional training and technical assistance under the Community Based Water Resiliency Initiative to further disseminate information on the importance of water infrastructure in the response, recovery, and resiliency of a community.

Statutory Authority:

SDWA, 42 U.S.C. §300f–300j–9 as added by Public Law 93–523 and the amendments made by subsequent enactments, Sections – 1431, 1432, 1433, 1434, and 1435; CWA 33 U.S.C. §1251 et seq.; Public Health Security and Bioterrorism Emergency and Response Act of 2002.

Homeland Security: Protection of EPA Personnel and Infrastructure

Program Area: Homeland Security

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$4,805.0</i>	<i>\$5,460.0</i>	<i>\$5,118.0</i>	<i>(\$342.0)</i>
Science & Technology	\$545.0	\$542.0	\$605.0	\$63.0
Building and Facilities	\$4,158.7	\$6,676.0	\$7,875.0	\$1,199.0
Hazardous Substance Superfund	\$1,057.1	\$1,097.0	\$1,113.0	\$16.0
Total Budget Authority / Obligations	\$10,565.8	\$13,775.0	\$14,711.0	\$936.0
Total Workyears	2.7	4.9	8.9	4.0

Program Project Description:

This EPA Homeland Security Program, in the EPM appropriation, supports management and operations for the EPA Personnel Access and Security System (EPASS) which is designed to enroll, print, and issue an EPASS badge for nearly 25,000 EPA employees and contractors, for the National Security Information (NSI) program, which manages and safeguards the agency's classified information and for mitigating security vulnerabilities at agency facilities.

FY 2016 Activities and Performance Plan:

As part of nationwide protection of buildings and critical infrastructure, the EPA performs vulnerability assessments on approximately 13 to 15 facilities each year. Through this program, the agency also recommends security risk mitigations, oversees access control measures, determines physical security measures for new construction and leases, and manages the lifecycle of security equipment.

The EPA initiates and adjudicates approximately 7,650 investigations, processes 3,700 fingerprint checks, determines eligibility to access classified NSI, and maintains approximately 25,000 personnel security records. The EPA safeguards NSI through mandatory NSI security education and training, on-site NSI inspections and vulnerability assessments, overseeing the EPA's Sensitive Compartmented Information Program and Industrial Security Program, and managing NSI-related databases.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$106.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$448.0) This program change decreases funding for the Homeland Security program resulting from agencywide efforts to develop more effective business processes and the review and redesign of core business processes to further leverage technology.

Statutory Authority:

Intelligence Reform and Terrorism Prevention Act of 2004; Homeland Security Presidential Directive 12; Executive Orders 10450, 13526, 13467, 13488, 12829, and 12968; Title 5 CFR Parts 731 and 732; 32 CFR Part 2001; Privacy Act; Interagency Security Committee (ISC) Physical Security Criteria for Federal Facilities; Design Basis Threat, Interagency Security Committee, March 2013.

Program Area: Information Exchange / Outreach

Children and Other Sensitive Populations: Agency Coordination

Program Area: Information Exchange / Outreach

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$5,888.0	\$6,548.0	\$8,035.0	\$1,487.0
Total Budget Authority / Obligations	\$5,888.0	\$6,548.0	\$8,035.0	\$1,487.0
Total Workyears	21.2	21.8	21.8	0.0

Program Project Description:

The program coordinates and advances the protection of children’s environmental health across the EPA to reinforce the agency’s mission to protect human health through; the development of regulations; improving risk assessment and science policy; implementing community-level programs; and tracking and communicating measures, indicators, and progress on children’s health. The children’s health protection effort is directed by the EPA’s 1995 *Policy on Evaluating Health Risks to Children*, the 1997 Executive Order 13045 *Protection of Children’s Health from Environmental Health Risks and Safety Risks*, the EPA’s 2010 memorandum *EPA’s Leadership in Children’s Environmental Health*, and the EPA’s 2013 reaffirmation of the 1995 Policy. Legislative mandates such as the Energy Independence and Security Act of 2007 (EISA), the Safe Drinking Water Amendments of 1996, and the Food Quality Protection Act of 1996 also direct the agency to protect children and other vulnerable life stages.^{150,151}

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to use a variety of approaches to protect children from environmental health hazards by addressing children’s health concerns associated with the implementation of community-based programs, the regulatory development process, research, science policy, and outreach. The Office of Children’s Health Protection (OCHP) will review results from office and agency-level strategic plans as well as recommendations and corrective actions from GAO and OIG audits to help identify the best approaches. To measure progress, OCHP will utilize existing databases and procedures designed to track agency-level performance for specific children’s health results. OCHP will also take the lead in ensuring that the EPA’s programs and Regional Offices are successful in their efforts to protect children’s environmental health. These activities include the following:

¹⁵⁰ The Energy Independence and Security Act of 2007 directs the EPA to produce guidelines on the safe siting of schools and guidelines to states on school environmental health programs in order to protect children from environmental hazards where they learn.

¹⁵¹ The 1996 amendments to the Safe Drinking Water Act require the EPA to strengthen protection of children by considering the risk to the most vulnerable populations and life stages when setting standards. The Food Quality Protection Act (FQPA) of 1996 amended the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Food, Drug, and Cosmetic Act (FFDCA) to include stricter safety standards for pesticides, especially for infants and children, and a complete reassessment of all existing pesticide tolerances.

- Continuing to work internally and with other agencies, states and tribes to improve coordination across the agency to ensure that policies and programs explicitly consider and use the most up-to-date methods and data for protecting children from heightened public health risks.
- Continuing to serve as a co-lead for the interagency efforts of the President’s Task Force on Environmental Health Risks and Safety Risks to Children with the Department of Health and Human Services. As part of this effort, the program will coordinate with other related agencies to improve federal government-wide support in implementing children’s health legislative mandates and children’s health outreach. This will include providing children’s environmental health expertise on interagency activities and coordinating expertise from program offices. Through the Task Force, the EPA will work to advance its contributions to federal initiatives – including the *Coordinated Federal Action Plan to Reduce Racial and Ethnic Asthma Disparities*¹⁵², *Advancing Healthy Housing – A Strategy for Action* (a report from the Federal Healthy Homes Work Group) and the *President’s Climate Action Plan*).^{153,154}
- Continuing to serve as the lead program to implement and coordinate with programs that protect children where they live, learn and play by:
 - Promoting and offering technical assistance for the adoption of the agency’s Schools Guidelines and other programmatic school environmental health tools.¹⁵⁵
 - Providing training, curriculum and assessment resources regarding children’s environmental health to child care providers and government agencies that oversee centers.
 - Establishing relationships with national youth organizations to educate and empower children about environmental health in extracurricular and afterschool settings.
 - Promoting healthy homes and child care centers by incorporating a strong message regarding the unique vulnerabilities of children into related training (e.g., training for energy auditors, weatherization workers, code inspectors, and community health workers).
- Addressing the potential for unique exposures, health effects, and health risks in children during the development of agency regulations and policies by actively participating on regulatory workgroups and ensuring that regulatory developers receive children’s health training.

¹⁵² The Asthma Disparities Action Plan: http://www.epa.gov/childrenstaskforce/federal_asthma_disparities_action_plan.pdf.

¹⁵³ The Healthy Housing Strategy for Action: http://portal.hud.gov/hudportal/HUD?src=/program_offices/healthy_homes/advvh.

¹⁵⁴ The President’s Climate Action Plan: <http://www.whitehouse.gov/sites/default/files/image/president27climateactionplan.pdf>.

¹⁵⁵ The EPA’s Voluntary Guidelines for States: Development and Implementation of a School Environmental Health Program and Voluntary School Siting Guidelines: <http://www.epa.gov/schools/>.

- Working with internal and external partners to improve the scientific understanding of children’s environmental health concerns by:
 - Coordinating with research partners to fill critical knowledge gaps on children’s unique vulnerabilities. OCHP will collaborate with the Research and Development program, Children’s Environmental Health and Disease Prevention Research Centers and others on many activities, including: research planning, relevancy reviews (participating on research grant review teams to highlight children’s environmental health topics), research presentations and publications, and translating and applying research findings.
 - Improving the EPA’s risk assessment and science policies and their implementation tools to ensure they address unique, early-life health susceptibilities including those for multiple environmental hazards and stressors.
- Sharing scientific data for the development of standards, policies, and guidance that protect children domestically and internationally by eliminating potentially harmful prenatal and childhood environmental exposures;
- Increasing environmental health knowledge (i.e., working the Pediatric Environmental Health Specialty Units (PEHSUs)) of health care providers related to prenatal and childhood exposures and health outcomes with a focus on vulnerable groups through outreach activities; and
- Continuing to work on the established targets and action plans for the *FY 2014-2018 EPA Strategic Plan* and agencywide Strategy for Protecting Children’s Environmental Health.

Performance Targets:

Work under this program contributes to progress under all five Strategic Goals. Currently there are no performance measures for this specific program. Agency efforts for protecting children’s environmental health are included under the Communities Cross-Agency Strategy and enumerated for the *FY 2014-2018 EPA Strategic Plan* in the Strategy for Protecting Children’s Environmental Health.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$540.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$947.0) This program change increases resources for technical assistance and emergency response services available to communities through Pediatric Environmental Health specialty Units and increases technical assistance provided to states and communities through the agency’s emphasis on Healthy Communities.

Statutory Authority:

Executive Order 13045; Energy Independence and Security Act of 2007; Food Quality Protection Act of 1996; Safe Drinking Water Act Amendments of 1996.

Environmental Education

Program Area: Information Exchange / Outreach

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$7,520.3	\$8,702.0	\$10,969.0	\$2,267.0
Total Budget Authority / Obligations	\$7,520.3	\$8,702.0	\$10,969.0	\$2,267.0
Total Workyears	12.3	11.1	11.1	0.0

Program Project Description:

This program ensures that Environmental Education (EE), based on sound science and effective education practices, is used as a tool to promote the protection of human health and the environment, encourage student academic achievement, advance community engagement and empowerment, and support the EPA's strategic goals, priorities, and programs. EE is fundamental to the EPA's mission and cross-cutting priorities in that it teaches the public about environmental challenges, actionable choices, and environmental stewardship. The program supports the development of environmentally literate citizens and stewards. Please see the program website for additional information.¹⁵⁶

The National Environmental Education Act (NEEA) provides a foundation for the agency's EE program. The program implements the NEEA, providing national direction and leadership, and works in partnership with K-12 schools, colleges and universities, federal and state agencies, and community organizations to assess needs, establish priorities, and leverage resources. Specifically, the Office of Environmental Education (OEE) within the EPA has programs that 1) ensure that information from the EPA is of high-quality, reliable, and easily accessible to the public; 2) advance environmental literacy; 3) encourage broad citizen involvement, including of diverse and underserved communities; 4) improve individual capacity to take effective, environmentally responsible action; and 5) encourage partnerships and linkages across sectors, such as public-private partnerships and federal-state partnerships that broaden the reach and impact of EE in advancing the EPA's strategic interests.

OEE coordinates agency education activities. OEE will build upon existing work and establish new efforts to increase intra- and interagency collaboration, as well as partnerships and initiatives with non-federal entities in support of the EPA's goals and priorities. In addition to providing support for K-12 EE, EE for adult learners, and training and development of formal and informal educators, these activities will involve education for the general public on the larger-scale implications and impacts of environmental and public health problems and their role in rulemaking, as well as integration of educational elements in engagement and communication efforts, including outreach to underserved communities about EE.

¹⁵⁶ For more information, visit: <http://www2.epa.gov/education>.

FY 2016 Activities and Performance Plan:

In FY 2016, a resource level of \$10.9 million and 11.1 FTE supports environmental education.

In accordance with the strict allocations prescribed by the National Environmental Education Act (NEEA), FY 2016 resources will help implement the following major programs and activities:

- Administering the National Environmental Education Grant program – In calendar year 2014, 19 regional EE grants and 1 HQ EE grant were awarded to grantees that included national and local foundations, a 4-year community college, and a community college, among others;¹⁵⁷
- Competing a new cooperative agreement for the National Educator Training Program, which is focused on providing training, professional development, and networking support for formal and informal educators in the formulation and delivery of EE programs, practices, methods, materials, and studies. Activities under the current agreement included the development, delivery and/or establishment of activities that ranged from: training workshops, online courses, professional learning communities, and guidelines training to implementation of a community fellowship program, initiation of certification and accreditation activities, and addition of new state consortia and related activities;
- Issuing EE Awards for students and teachers through the implementation of both the President’s Environmental Youth Award (PEYA) program and the Presidential Innovation Award for the Environmental Educators (PIAEE) program. In calendar year 2014, 17 teachers and 60 students from across the nation were honored for their contributions to environmental education and stewardship;^{158, 159}
- Managing the National Environmental Education Advisory Council (NEEAC);¹⁶⁰
- Providing funding to the National Environmental Education Foundation (NEEF);¹⁶¹
- Funding single- and multi-media initiatives and partnerships to, among other things, build, enhance, and support the following:
 - Inter- and intra-agency coordination to improve EE across the EPA and the federal government, including through technical assistance, funding, and innovation in the areas of program development, implementation, management, and strategic planning for EE design and dissemination;
 - Field-wide (including for national, state, and local level formal and informal EE experts and educators of pre-K-16 and adult learners) efforts to develop a framework and tools for measuring the impacts of EE;
 - Programs that focus on EE on college campuses, such as the Tribal ecoAmbassadors program;¹⁶²
 - National- and international-level EE planning and programming efforts;
 - Update of EE guidelines to ensure they reflect current thinking on sustainability and Next Generation Science Standards;¹⁶³

¹⁵⁷ For more information, visit: <http://www2.epa.gov/education/environmental-education-ee-grants>.

¹⁵⁸ For more information, visit: <http://www2.epa.gov/education/presidential-innovation-award-environmental-educators>.

¹⁵⁹ For more information, visit: <http://www2.epa.gov/education/presidents-environmental-youth-award>.

¹⁶⁰ For more information, visit: <http://www2.epa.gov/education/national-environmental-education-advisory-council>.

¹⁶¹ For more information, visit: <http://www.neefusa.org>.

¹⁶² For more information, visit: <http://www.epa.gov/ecoambassadors/tribal>.

- Participation in community-focused efforts and events that promote engagement of diverse audiences, including strengthening the cadre of EE professionals reaching underserved and disproportionately impacted communities;
- Public-private partnerships that broaden the reach and impact of EE – for example, partnerships to promote greater youth and other fan/stakeholder engagement and education through Green Sports; and
- Inclusion of EE in web and social-media initiatives.

Performance Targets:

Work under this program contributes to progress under all five Strategic Goals. Currently there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$86.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$2,181.0) This program change reflects an increase to meet the required staffing levels and corresponding funding requirements under NEEA. This also reflects increased support for administration of EE grants; advancement of the frameworks and tools used for measuring EE impacts; development of a process to identify and address gaps and redundancies in EE materials and programming within the agency; leveraging of EE efforts across the federal government; and development of the longer-term strategic direction for the program.

Statutory Authority:

National Environmental Education Act (PL 101-619); Section 103 of the Clean Air Act; Section 104 of the Clean Water Act; Section 8001 of the Solid Waste Disposal Act; Section 1442 of the Safe Drinking Water Act; Section 10 of the Toxic Substances Control Act; Section 20 of the Federal Insecticide, Fungicide, and Rodenticide Act.

¹⁶³ For more information, visit: <http://eelinked.naaee.net/n/guidelines/posts/Environmental-Education-Materials-Guidelines-for-Excellence>.

Executive Management and Operations

Program Area: Information Exchange / Outreach

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$47,471.0</i>	<i>\$46,276.0</i>	<i>\$48,972.0</i>	<i>\$2,696.0</i>
Total Budget Authority / Obligations	\$47,471.0	\$46,276.0	\$48,972.0	\$2,696.0
Total Workyears	306.0	314.2	309.4	-4.8

Program Project Description:

This program includes various offices and functions that provide critical executive and logistical support to the EPA's Administrator. In addition to the Administrator's Immediate Office (IO), resources in this program support four headquarters offices that help the agency communicate and coordinate its work to protect human health and the environment, including the Office of Congressional and Intergovernmental Relations, Office of Executive Services, Office of the Executive Secretariat, Office of Public Affairs, and Office of Public Engagement and Environmental Education.

Funding in this program also supports the EPA's ten Regional Administrators' offices. The headquarters and Regional Offices' activities serve as a critical link to the agency's engagement with outside entities, including: Congress, state and local governments, nongovernmental organizations, national and community associations, and the public. These activities include management, coordination and establishing policy.

Within this program, key functions include, but are not limited to: setting the agency's strategic goals and priorities; responding to Congressional requests for information; coordinating and providing outreach and liaising with state and local governments, agricultural and rural communities; and maintaining public relations and communication with the press. This program also supports administrative management services involving correspondence control and records management systems; human resources management, budget formulation and execution, and information technology management services. Through the funding for this program, the EPA Administrator can better coordinate across the agency, utilize more efficient management practices and provide greater accountability and transparency to our stakeholders.

FY 2016 Activities and Performance Plan:

In FY 2016, the Immediate Office of the Administrator (IO) will continue providing management, leadership and direction to all of the EPA's programs and activities and develop the guidance necessary to ensure achievement of the agency's strategic goals and priorities. In FY 2016, IO resources will primarily support critical workforce and telecommunications needs for staff. IO administrative personnel will provide secretarial support to accomplish the following activities: managing and processing approximately 100 invitations received per week for the Administrator to participate in various activities; staffing the agency's main phone line; managing scheduling; coordinating travel and facilitating advance work. The agency will continue to identify efficiencies allowing the Office of the Administrator (AO) to continue to manage, lead and direct the EPA's programs and activities while ensuring achievement of the agency's strategic goals and priorities. In FY 2016, the IO will be funded at a level of \$4.13 million and 23.8 FTE.

The Office of Congressional and Intergovernmental Relations (OCIR) (which consists of the Office of Congressional Affairs and the Office of Intergovernmental Relations) serves as the EPA's principal point of contact for Congress, states and local governments. OCIR serves as a liaison with these constituencies on the agency's major programs (e.g., Air, Water and Pesticides) and intergovernmental issues. OCIR and its regional counterparts serve as a direct contact for Congress and state and local government officials during crises and for the numerous EPA program activities that directly impact elected and other senior state and local officials.

In FY 2016, OCIR's Office of Congressional Affairs (OCA) will continue preparing the EPA's officials for hearings and meetings with members of Congress, oversee responses to written inquiries and oversight requests from members of Congress, and coordinate and provide technical assistance and briefings on legislative areas of interest to members of Congress and their staff. As needed, OCA will work with program offices to prepare nominees for confirmation hearings. In addition, OCA will coordinate with the White House's Office of Legislative and Intergovernmental Affairs and the Council for Environmental Quality on issues related to achieving the agency's goals and priorities.

OCIR's Office of Intergovernmental Relations serves as the agency's liaison to state and local government officials and manages the Administrator's Local Government Advisory Committee (LGAC) and Small Community Advisory Subcommittee. LGAC is the EPA's only federal advisory committee made up exclusively of locally elected and appointed officials from municipalities, tribes and states. The office also coordinates the interactions of senior agency officials (including the Administrator and Deputy Administrator) with that of governors, mayors, and other state and local officials and their respective associations. These activities help inform and educate state and local officials on the EPA's actions and help ensure that agency policies and regulations consider impacts on state and local governments. The office also manages the EPA's implementation of the Federalism Executive Order ensuring proper and formal consultation with state and local governments and that significant agency regulations and policies reflect their concerns.

OCIR's Office of Intergovernmental Relations will continue to work closely with program offices, Regional Offices and states to modernize and expand the use of the National Environmental Performance Partnership System (NEPPS) as a platform to improve the EPA's working relationship with states. NEPPS is a performance-based system of environmental protection designed to drive performance, efficiency, and resource flexibility into the EPA-state partnerships that implement the nation's environmental programs. These efforts will support the *FY 2014-2018 EPA Strategic Plan* and the Administrator's priority to establish a new era of state and local partnerships. In FY 2016, OCIR will lead collaborations among NPMs, Regional Offices, and states to develop guiding principles to improve coordination among NPM Guidance, NEPPS agreements, and state oversight practices. In FY 2016, OCIR will be funded at a level of \$7.82 million and 51.6 FTE.

The Office of Public Affairs (OPA) facilitates the exchange of information between the EPA and the public, media, Congress, and state and local governments; broadly communicates the EPA's mission to protect human health and the environment; promotes public awareness of environmental issues; and solicits stakeholder commitment to environmental stewardship and environmental protection. In FY 2016, OPA will be funded at a level of \$6.06 million and 38.9 FTE.

In FY 2016, OPA will continue to ensure it informs the media of agency initiatives and delivers timely, accurate information. The office will continue its One EPA web project to provide stakeholders with transparent, accurate and comprehensive information on the EPA's activities and policies. OPA will continue using social media and multimedia to reach our stakeholders. The office also will work with other EPA program offices to improve employee communications and collaboration through its innovative Skills Marketplace Program, a component of EPA's High-Performing Organization Cross-Agency Strategy that allows the agency to more efficiently share expertise on important projects to complete them more quickly and help improve results. The office also will work on making the agency's intranet site more user-friendly in providing agency information to employees. Finally, the office is undertaking GreenSpark, an employee ideation platform where employees provide ideas, best practices and solutions to project challenges.

In FY 2016, the Office of Public Engagement and Environmental Education (OPEEE) will conduct outreach with stakeholders, including faith-based, neighborhood, multilingual, educational, and health groups and underserved populations to solicit feedback and ensure they have a better understanding of the actions the EPA is taking to protect public health and the environment. OPEEE also will continue the EPA's environmental outreach and education efforts to ensure teachers, students, and other members of the public have accurate, science-based information readily at their disposal. In FY 2016, OPEEE (not including Environmental Education resources) will be funded at a level of \$1.77 million and 12.0 FTE.

As the central administrative management component of the AO, the Office of Executive Services (OES) provides advice, tools, and assistance to the AO's programmatic operations, including: human resources management, budget and financial management, information technology and security, and audit management. In FY 2016, the Headquarters OES will be funded at a level of \$3.54 million and 18.9 FTE.

The Office of the Executive Secretariat (OEX) manages the AO's correspondence, records management and Freedom of Information Act (FOIA) activities. OEX oversees the AO records management program, ensures that managers and staff are aware of their individual and programmatic responsibilities and is custodian of the Administrator's and Deputy Administrator's records. The office processes all FOIA requests for records within its custodianship and oversees the processing of FOIA requests in AO staff offices. The OEX correspondence team processes correspondence for the Administrator and Deputy Administrator and reviews and prepares documents for their signature. The team also manages the Administrator's primary email account, which receives more than 1 million messages annually. Finally, OEX operates the Correspondence Management System, which provides paperless workflow, tracking and records management capabilities to more than three thousand registered users agencywide.

In FY 2016, OEX will continue providing critical administrative support to help the Administrator, Deputy Administrator, senior agency officials and staff comply with the statutory and regulatory requirements under the Federal Records Act, FOIA and related statutes and regulations. OEX will also work to continue promoting efficiency in processing agencywide correspondence, thereby helping to reduce costs, improve accountability and produce faster responses to the public, states, businesses, stakeholders and Congress. In FY 2016, OEX will be funded at a level of \$2.27 million and 16.6 FTE.

Performance Targets:

Work under this program contributes to progress under all five Strategic Goals. Currently there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$2,511.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$185.0 / -4.8 FTE) This net program change reflects efficiencies to be realized in business process changes such as consolidation and restructuring of administrative support processes.

Statutory Authority:

As provided in Appropriations Act funding; Federal Advisory Committee Act; Environmental Impact Assessment Act; North American Free Trade Agreement Implementation Act; Residential Lead Based Paint Hazard Reduction Act; North American Anti-Epileptic Drug Pregnancy Registry; La Paz Agreement U.S./Mexico Border; Comprehensive Environmental Response, Compensation and Liability Act.

Exchange Network

Program Area: Information Exchange / Outreach

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$19,602.1</i>	<i>\$16,995.0</i>	<i>\$25,361.0</i>	<i>\$8,366.0</i>
Hazardous Substance Superfund	\$1,383.0	\$1,328.0	\$1,366.0	\$38.0
Total Budget Authority / Obligations	\$20,985.1	\$18,323.0	\$26,727.0	\$8,404.0
Total Workyears	34.7	31.2	30.2	-1.0

Program Project Description:

The EPA's Environmental Information Exchange Network (EN) is a standards-based, secure approach for the EPA and its state, Tribal and territorial partners to exchange and share environmental data over the Internet. As it employs new technology and data standards, open-source software, shared and portal services for the E-Enterprise business strategy, and reusable tools and applications, the EN offers its partners tremendous potential for managing and analyzing environmental data more effectively and efficiently, leading to improved decision making.

The Central Data Exchange (CDX)¹⁶⁴ is the largest component of the EN program and serves as the point of entry on the Exchange Network for environmental data transactions with the agency. CDX provides a set of core services that promote a leaner and more cost-effective enterprise architecture for the agency by avoiding the creation of duplicative services. It also provides a set of value-added features and services that enable faster and more efficient transactions for internal and external clients of the EPA. Through CDX, a stakeholder can submit data through one centralized point of access, exchange data with target systems using Web services and utilize publishing services to share information collected by the EPA and other stakeholders (including states and tribes). CDX also provides central support for virtual signature service and reporting, and support for the Automated Commercial Environment, a system for import and export services for the U.S. Customs and Border Protection.

The agency's EN program also includes other tools and services, such as the Facility Registry Service (FRS), the Substance Registry System, the Reusable Component Services and other registries within the EPA's System of Registries. FRS serves as a key point of entry for the public interested in the EPA's data stores, such as Envirofacts, the Geoplatform, MyEnvironment, Cleanups In My Community and a host of other tools. The registries provide a

¹⁶⁴ For more information on the Central Data Exchange, please visit: <http://www.epa.gov/cdx/>.

platform to link data across other systems, environmental programs and even other agencies' data, enabling the EPA to bring data together for greater understanding of environmental issues. The registries are key integrators that promote discovery, access, sharing and understanding of the EPA's information and assets.

FY 2016 Activities and Performance Plan:

In FY 2016, the Exchange Network program will continue to be a pivotal component of the agency's E-Enterprise business strategy and Lean efforts to move toward a high performance organization (HPO) to support business process changes agencywide. E-Enterprise for the Environment is a transformative 21st century strategy – jointly governed by states and the EPA – for rethinking how government agencies deliver environmental protection. Under this strategy, the agency will modernize its business processes and systems to reduce reporting burden on states and regulated facilities, and improve the effectiveness and efficiency of regulatory programs for the EPA, states and tribes.

Within the E-Enterprise business strategy context, the agency will continue to pilot projects that transform the EN from a closed partnership of states and tribes to a more open platform of services that the public or third parties can use to develop tools and applications to make environmental data reporting, sharing and analysis faster, simpler and less expensive. In addition, the EN program will work across EPA offices to integrate and roll out additional reporting systems into CDX, such as Clean Air Act State Implementation Plan reporting and updates, the high volume-reporting National Pollutant Discharge Elimination System program and reporting for the Toxic Substances Control Act.

In FY 2016, the EPA will continue to support the E-Enterprise business strategy which facilitates two-way electronic transactions with the regulated community and external partners who routinely conduct environmental business with the EPA. It will enable customers and co-regulators of the EPA (states, tribes and territories) to conduct environmental business electronically and in a customizable format. For example, facilities will be able to go online to apply for permits, check compliance status, report their emissions and learn about new regulations that may apply to them. In accordance with E-Enterprise business strategy principles, the EPA will be able to replace outdated paper reporting with integrated reporting capacity using advanced technology and shared IT services. The paperwork and regulatory reporting burden will be reduced by more efficient collection, reporting and use of data.

In FY 2016, as part of the E-Enterprise business strategy, the EPA will carry out the following projects under the Exchange Network program: implementing a Federated Identity Management system for the EPA and its partners; implementing information registry enhancements to Facility Registry Services (FRS); developing Laws and Regulations Services (LRS), which will be a shared services platform that provides standardized identification of and associations between regulations, laws, and the EPA's programs; and deploying reusable electronic signature services to streamline Cross-Media Electronic Reporting Regulation (CROMERR) compliance. The EPA has already made progress on these projects; for example, during FY 2014, the EPA gathered business requirements related to the FRS data model and completed Phase I of FRS/CDX web services for direct reporters. New web services enable them to identify their facility, pre-populate

their reporting form, and correct and validate data. These enhancements will enable FRS to implement information registry by the end of 2016. Additionally, advancements in data transport services, such as the virtual node proof of concept, are providing state-of-the-art cloud-based solutions for the EPA's state and tribal partners.

In FY 2016, the EPA will continue to provide enhanced IT services and make them available for state, Tribal and territorial system implementations that will reduce resource requirements and streamline compliance with the CROMERR. The EPA will continue to:

- Conduct robust outreach activities to increase awareness of virtual node Web services, interfaces and CROMERR services and the benefits of using these services;
- Approve CROMERR applications from authorized programs that propose to use the EPA's virtual CROMERR services and assist co-regulators with integrating these services into their systems; and
- Provide virtual services to two new Tribal partners and to two existing state, Tribal, or territorial partners who are replacing or augmenting local nodes to better integrate services.

These activities are intended to assist states and tribes in the development activities associated with establishing a point of presence and exchanging data on the Network and supporting local electronic reporting programs in a more cost effective way.

In FY 2016, the System of Registries will continue efforts to allow greater sharing and better understanding of the EPA's data. This includes:

- Continued enhancement of the EPA's inventory of systems and computational models, the Registry of EPA Applications and Databases (READ), to meet agency federal reporting and information management needs;
- Continued updates to the EPA's enterprise dataset registry, the Environmental Dataset Gateway, to meet EPA's priority of improving data accessibility, achieve compliance with Open Data Policy requirements (OMB M-13-13) and pursue the establishment of an administrative dataset registry; and
- Continued development of data dictionaries for systems catalogued in READ, encouraging re-use of data elements in existing systems, thereby improving standards and reducing burden.

The EPA also will continue to improve information management of its IT resources through its catalog of IT services (e.g., widgets, Web services, reusable code). The Reusable Component Services are a resource that enables EPA programs to reuse standard system functions in whole or in part, thus saving money and time for states and Tribal governments and EPA.

In FY 2016, FRS will continue to identify and geospatially locate facilities, sites or places of environmental interest that are subject to regulation. Using rigorous verification and data management procedures, FRS will continue to integrate facility data from the EPA's national program systems, other federal agencies and state and Tribal master facility records; it also will enhance and implement a service that enables direct reporters to pre-populate and correct their facility reporting data. The EPA will work with its programs to design a new service that incorporates the information in the Substance Registry Services (SRS) and helps industry, the public and other users discover where there is information about chemicals and other substances within the agency.

In FY 2016, the EPA will continue to work with the Department of Homeland Security's Customs and Border Protection (CBP) to improve the importation process of products that are of dual interest to EPA and CBP. The EPA will complete pilot tests for electronic reporting and processing of EPA-regulated imports for vehicles and engines, pesticides and toxic substances. This electronic reporting will aid regional enforcement coordinators by automating what is currently a manual review process and allow them to focus on key high-value monitoring and targeting activities for noncompliant imports.

Performance Targets:

Measure	(052) Number of major EPA environmental systems that use the CDX electronic requirements enabling faster receipt, processing, and quality checking of data.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	50	60	60	67	75	80	77	80	Systems
Actual	55	60	64	68	73	89			

Measure	(053) States, tribes and territories will be able to exchange data with CDX through nodes in real time, using standards and automated data-quality checking.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	60	65	65	80	95	98	103	140	Users
Actual	59	69	72	92	97	102			

Measure	(999) Total number of active unique users from states, tribes, laboratories, regulated facilities and other entities that electronically report environmental data to EPA through CDX.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			Baseline Year	58,000	70,000	75,000	84,000	90,000	Users
Actual			56,200	65,238	79,818	96,000			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$85.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support and benefit costs.
- (-\$990.0 / -1.0 FTE) This reflects a realignment of resources to direct support for the Freedom of Information Act (FOIA) program from Exchange Network to Information Technology/Data Management (IT/DM). FOIA is part of the content management strategy supported in IT/DM which includes records, eDiscovery, and privacy.

- (+\$9,271.0) This net program change provides funding for projects that will enable states, tribes, and the EPA to modernize its business processes following E-Enterprise principles. Total funding for new E-Enterprise projects within the Exchange Network program project is \$9,552.0 which is offset by \$281.0 in savings from efficiencies gained through consolidation of contracts and administrative support. The projects will tie together the EPA's environmental program databases and information requirements and facilitate industries to routinely conduct environmental business transactions with the EPA. Projects included under this E-Enterprise framework for FY 2016 are:
 - Implementation of an Identity and Access Management service for the EPA and its partners;
 - Implementation of enhancements to the Facility Registry Service;
 - Development of the Laws and Regulations Service - a shared service that provides standard identification of and associations between regulations and laws across EPA's programs; and
 - Deployment of reusable electronic signature services to streamline Cross-Media Electronic Reporting Regulation (CROMERR) implementation.

Statutory Authority:

Federal Advisory Committee Act (FACA), 42 United States Code 553 et seq. and Government Information Security Act (GISRA), 40 U.S.C. 1401 et seq. – Sections 3531, 3532, 3533, 3534, 3535 and 3536 and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. 9606 et seq. – Sections 101-128, 301-312 and 401-405 and Clean Air Act (CAA) Amendments, 42 U.S.C. 7401 et seq. – Sections 102, 103, 104 and 108 and Clean Water Act (CWA), 33 U.S.C. 1314 et seq. – Sections 101, 102, 103, 104, 105, 107, and 109 and Toxic Substances Control Act (TSCA), 15 U.S.C. 2611 et seq. – Sections 201, 301 and 401 and Federal Insecticide Fungicide and Rodenticide Act (FIFRA), 7 U.S.C. 36 et seq. – Sections 136a – 136y and Food Quality Protection Act (FQPA), 7 U.S.C. 136 et seq. – Sections 102, 210, 301 and 501 and Safe Drinking Water Act (SDWA) Amendments, 42 U.S.C. 300 et seq. – Sections 1400, 1401, 1411, 1421, 1431, 1441, 1454 and 1461 and Federal Food, Drug and Cosmetic Act (FFDCA), 21 U.S.C. 346 et seq. and Emergency Planning and Community Right-to-Know Act (EPCRA), 42 U.S.C. 11001 et seq. – Sections 322, 324, 325 and 328 and Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6962 et seq. – Sections 1001, 2001, 3001 and 3005 and Government Performance and Results Act (GPRA), 39 U.S.C. 2803 et seq. – Sections 1115, 1116, 1117, 1118 and 1119 and Government Management Reform Act (GMRA), 31 U.S.C. 501 et seq. – Sections 101, 201, 301, 401, 402, 403, 404 and 405 and Clinger-Cohen Act (CCA), 40 U.S.C. 1401 et seq. – Sections 5001, 5201, 5301, 5401, 5502, 5601 and 5701 and Paperwork Reduction Act (PRA), 44 U.S.C. 3501 et seq. – Sections 104, 105, 106, 107, 108, 109, 110, 111, 112 and 113 and Freedom of Information Act (FOIA), 5 U.S.C. 552 et seq. and Controlled Substances Act (CSA), 21 U.S.C. 802 et seq. – Sections 801, 811, 821, 841, 871, 955 and 961; Privacy Act; Electronic Freedom of Information Act, Security and Accountability for Every (SAFE) Port Act, Executive Order 13439. Exchange Network Program funding has been provided by the annual appropriations for EPA: FY 2002 (Public Law 107-73), FY 2003 (Public Law 108-7), FY 2004 (Public Law 108-199) FY 2005 (Public Law 108-447) and FY 2006 (Public Law 109-54), FY 2007 (Public Law 110-5), FY 2008 (Public Law 110-161), and FY 2009 (Public Law 111-8).

Small Business Ombudsman

Program Area: Information Exchange / Outreach

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Promote Pollution Prevention

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$1,604.0</i>	<i>\$2,031.0</i>	<i>\$2,296.0</i>	<i>\$265.0</i>
Total Budget Authority / Obligations	\$1,604.0	\$2,031.0	\$2,296.0	\$265.0
Total Workyears	4.3	4.9	4.9	0.0

Program Project Description:

The EPA's Small Business Ombudsman program includes both the Asbestos and Small Business Ombudsman (ASBO) and the small business activities located in the Office of Policy's Office of Regulatory Policy and Management (ORPM). ASBO serves as the agency's leading advocate for small business regulatory issues through its partnership with the EPA Regional Small Business Liaisons, state Small Business Environmental Assistance Programs (SBEAPs) nationwide and hundreds of small business trade associations. These partnerships provide the information and perspective the EPA needs to help small businesses achieve their environmental goals.

The Small Business Ombudsman is a comprehensive program that provides networks, resources, tools, and forums for education and advocacy on behalf of small businesses.¹⁶⁵ The program also assists the EPA's program offices with analysis and consideration of the impacts of its regulatory actions on small businesses, helps identify less burdensome alternatives, and leads the EPA's implementation of the Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA). Under the RFA or SBREFA, the EPA evaluates the impact of its regulations on small businesses and engages with small entity representatives, the Office of Management and Budget and the Small Business Administration to help them understand the impacts of rules and identify less burdensome alternatives for rulemakings that may impact small businesses.

The core program functions include participating in the regulatory development process, operating and supporting the program's hotline and homepage, participating in the EPA's program and Regional Offices' small business-related meetings, and supporting internal and external small business activities. The program helps small businesses learn about new actions and developments within the EPA and helps the agency learn about the concerns and needs of small businesses. The program also provides technical assistance through the ASBO in the form of workshops, conferences, hotlines, and training forums designed to help small businesses become better environmental performers.

¹⁶⁵ Please refer to: <http://www.epa.gov/sbo>.

FY 2016 Activities and Performance Plan:

In FY 2016, the Small Business Ombudsman program will:

- Assist the EPA's programs, Regional Offices and state partners in carrying out the EPA's compliance assistance to small businesses, given the disinvestment in wholesale compliance assistance offered by the Office of Enforcement and Compliance Assurance.
- Assist in carrying out the EPA's implementation of the RFA, including Small Business Advocacy Panels for regulations that might have a significant and adverse economic impact on a substantial number of small entities.
- Expand quality and efficiency of technical and regulatory assistance to small businesses by providing enhanced information to small business owners, communities, trade associations and other audiences on recent regulatory actions and media program offices through a toll-free hotline. Support and promote the EPA's Small Business Strategy by encouraging small businesses, states, and trade associations to comment on the EPA's proposed regulatory actions, as well as providing updates on the agency's rulemaking activities in the quarterly Smallbiz@EPA electronic bulletin.¹⁶⁶
- Serve as the agency's point of contact for the Small Business Paperwork Relief Act¹⁶⁷ by coordinating efforts with the agency's program offices to further reduce the information collection burden for small businesses with fewer than 25 employees.
- Participate with the Small Business Administration and other federal agencies in Business.USA.gov, an official site of the U.S. government that helps small businesses understand their legal requirements and locate government services supporting the nation's small business community. This work helps to improve services and reduces the burden on small businesses by guiding them through government rules and regulations.
- Strengthen and support partnerships with state SBEAPs and trade associations and recognize state SBEAPs, small businesses, and trade associations that have directly impacted the improved environmental performance of small businesses. Develop a compendium of small business environmental assistance success stories that demonstrate what really works.
- Support the EPA's efforts to limit potential adverse impacts on small entities by assisting program offices in characterizing the possible impacts of its regulations and considering alternative requirements.

In this program in FY 2016, resources of \$1.33 million and 2.4 FTE support the Office of Small Business Programs. The remaining \$966 thousand and 2.5 FTE support activities related to the

¹⁶⁶ Please refer to: <http://www.epa.gov/sbo/bulletin.htm>.

¹⁶⁷ Please refer to: <http://www.epa.gov/sbo/pdfs/sbpra-2002.pdf>.

Small Business Regulatory Enforcement Fairness Act in the Office of Policy's Office of Regulatory Policy and Management.

Performance Targets:

Work under this program contributes to progress under all five Strategic Goals. Currently there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$183.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$82.0) This program change represents resources realized from business process changes within the EPA's headquarters and Regional Offices. These resources will primarily support basic and mandatory IT and telecommunications support costs of the onboard workforce, including support for desktop services, telephone and Local Area Network (LAN).

Statutory Authority:

1990 Clean Air Act Amendments (CAAA), section 507.

Small Minority Business Assistance

Program Area: Information Exchange / Outreach

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$1,766.8</i>	<i>\$1,641.0</i>	<i>\$1,971.0</i>	<i>\$330.0</i>
Total Budget Authority / Obligations	\$1,766.8	\$1,641.0	\$1,971.0	\$330.0
Total Workyears	9.7	9.2	8.9	-0.3

Program Project Description:

The EPA's Office of Small Business Programs (OSBP) manages the agency's Small and Minority Business Assistance Programs, which include the Direct Procurement Program and the Disadvantaged Business Enterprise (DBE) Program. This program provides technical assistance to small businesses and agency procurement professionals to ensure that small, disadvantaged, women-owned, Historically Underutilized Business Zone (HUBZone), and service-disabled veteran-owned small businesses (SDVOSBs) receive a fair share of the EPA's procurement dollars and grants. This program enhances the ability of these entities to participate in the protection of human health and the environment. The functions of the program involve accountability for evaluating and monitoring contracts, grants, and cooperative agreements entered into by the EPA's headquarters and Regional Offices. Through these efforts, the agency ensures its procurement and grant practices comply with federal laws and regulations regarding the utilization of small and disadvantaged businesses.

FY 2016 Activities and Performance Plan:

In FY 2016, under the agency's Small and Minority Business Assistance Programs, small and disadvantaged business procurement experts will provide training, technical assistance, and consultation to headquarters and Regional Office personnel and small business owners. This training will ensure that Small Disadvantaged Businesses (SDBs), Women-Owned Small Businesses (WOSBs), HUBZone firms, and SDVOSBs receive a fair share of the EPA's procurement dollars, based on goals negotiated with the Small Business Administration (SBA), and national goals set by statute.

In FY 2016, the EPA's Small and Minority Business Assistance Program will continue implementing applicable provisions of the 2010 Small Business Jobs Act and the WOSB

regulation enacted in 2011.¹⁶⁸ The EPA will work to eliminate contract bundling to help ensure opportunities for America's small business community.¹⁶⁹ The EPA will place emphasis on implementing the WOSB rule, authorizing contracting officers to restrict competition to eligible WOSBs for certain federal contracts in industries that the SBA has determined are underrepresented or substantially underrepresented in federal procurement. The agency will emphasize contracting with SDVOSBs, as mandated by Executive Order 13360,¹⁷⁰ which requires increased federal contracting opportunities for this group of entrepreneurs. For both the WOSB and SDVOSB programs, the agency will provide training of its acquisition professionals on the utilization of the programs; conduct targeted outreach and training to the SDVOSB and WOSB communities on how to navigate the EPA's procurement process; conduct specific reviews of the agency's procurements to ensure the utilization of both programs; and provide technical assistance to the EPA's program offices to assist in the identification of SDVOSBs and WOSBs for their procurement needs.

As a result of the Supreme Court's decision in *Adarand v. Peña*, 115 S. Ct. 2097 (1995),¹⁷¹ the EPA promulgated the Disadvantaged Business Enterprise (DBE) Rule (40 CFR Part 33).¹⁷² The EPA's implementation of the DBE Rule requires that its grant recipients perform good faith efforts to ensure that DBEs have an opportunity to compete for contracts funded by the EPA's assistance agreements. The DBE Program has a statutory goal of ten percent utilization of Minority Business Enterprises/Women-Owned Business Enterprises for research conducted under the Clean Air Act Amendments of 1990, as well as a statutory eight percent goal for all other programs. The DBE program encourages the agency and its financial assistance recipients to meet these indirect procurement goals. This includes: training the EPA grant personnel on the scope and utilization of the DBE Program; providing technical assistance and counseling to the EPA grant recipients on requirements of the DBE Program; targeting outreach efforts to encourage minority- and women- owned businesses to seek contract opportunities funded by the EPA's grants; and monitoring the program through compilation and analysis of required grantee DBE program reports. These efforts will enhance the ability of America's small and disadvantaged businesses to help the agency protect human health and the environment.

Performance Targets:

Work under this program contributes to progress under all five Strategic Goals. Currently there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$96.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.

¹⁶⁸ Please see https://www.sba.gov/about-sba/sba_initiatives/small_business_jobs_act_of_2010 and <https://www.sba.gov/content/women-owned-small-business-program> for further information.

¹⁶⁹ Please see <https://www.sba.gov/bundling> for further information.

¹⁷⁰ Please see https://www.sba.gov/offices/headquarters/ogc_and_bd/resources/5526 for further information

¹⁷¹ Please see <https://www.utexas.edu/vp/irla/Documents/Adarand%20Constructors%20Inc%20v%20Pen.pdf> for more information.

¹⁷² Please see <http://www.epa.gov/osbp/pdfs/dbe/final%20dbe%20rule.pdf> for more information.

- (+\$234.0 / -0.3 FTE) This net program change supports Disadvantaged Business Enterprise (DBE) Rule activities and enhanced technical assistance to small businesses to ensure that small and historically disadvantaged businesses receive a fair share of total procurement dollars. The decrease to FTE reflects a reduction associated with program analysis and oversight.

Statutory Authority:

Small Business Act, sections 8 and 15, as amended; Small Business Jobs Act; Executive Orders 12073, 12432, 12138, 13360 and 13216; P.L. 106-50; Clean Air Act.

State and Local Prevention and Preparedness

Program Area: Information Exchange / Outreach

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$13,802.7</i>	<i>\$15,666.0</i>	<i>\$27,783.0</i>	<i>\$12,117.0</i>
Total Budget Authority / Obligations	\$13,802.7	\$15,666.0	\$27,783.0	\$12,117.0
Total Workyears	56.3	73.5	74.2	0.7

Program Project Description:

The EPA's Chemical Emergency Preparedness and Prevention Program has responsibility for the national regulatory framework to prevent, prepare for and respond to catastrophic accidental chemical releases at industrial facilities throughout the United States. This program includes the Clean Air Act Section 112(r) Risk Management Program (RMP) and the Emergency Planning and Community Right-to-Know Act (EPCRA) program. The purpose of these programs is to prevent devastating accidents such as the 1984 accident at Union Carbide in Bhopal India, which resulted in thousands of deaths and at least 200,000 injuries. In the U.S., significant chemical accidents include those in Pasadena and Texas City, Texas, which resulted in hundreds of injuries and dozens of deaths, and more recent accidents, such as the explosion in West, Texas that resulted in the death of 12 firefighters, 2 members of the public, and more than 300 injuries.

Accidents at chemical facilities have resulted in injury and death, severe environmental damage, and great financial loss. Accidents reported to the EPA since the beginning of 2005 by RMP facilities have resulted in approximately 64 worker and public deaths, over 1,700 injuries, nearly 350,000 people sheltered in place, and more than \$2.5 billion in on-site and off-site damages.¹⁷³ States and communities often lack the capacity needed to prepare for and/or respond to these emergencies or to prevent them from happening in the first place.

The EPA's RMP and EPCRA programs provide the foundation for community and facility hazard response planning by requiring chemical facilities to take preventative measures, collect and report data to assist communities and other stakeholders in understanding chemical risks, and respond to chemical releases. Taken together, the RMP and EPCRA establish a structure, within which federal, state, local, and Tribal partners can work together to protect the public and the environment from chemical risks.

On August 1, 2013, the White House issued Executive Order (EO) 13650 on Improving Chemical Facility Safety and Security, in response to the disaster in West, Texas. The Chemical Facility Safety and Security Working Group established by Executive Order 13650, released the status report entitled *Actions to Improve Chemical Facility Safety and Security – A Shared*

¹⁷³ The EPA RMP database.

*Commitment*¹⁷⁴ on June 6, 2014, summarizing the Working Group's progress, focusing on actions to date, findings and lessons learned, challenges, and short and long-term priority actions. The EPA has initiated work on several of the actions associated with the status report action plan to expand support for local communities. These efforts include initiation and development of tools and technical support to strengthen the state and local infrastructure of SERCs/TERCs and LEPCs/TEPCs and engage with key stakeholders to discuss options for modernizing regulations, guidance, and policy to enhance chemical safety at facilities and draft a proposed rule to address key options to further chemical facility safety under the Risk Management Program. In FY 2016, the EPA will continue to coordinate with the Department of Homeland Security (DHS), the Occupational Safety and Health Administration (OSHA), and other interagency partners on activities associated with EO 13650.

Under Section 112(r) of the Clean Air Act, the EPA's regulations require that facilities handling more than a threshold quantity of certain extremely hazardous substances must implement a Risk Management program. The RMP requires regulated chemical facilities to conduct the following:

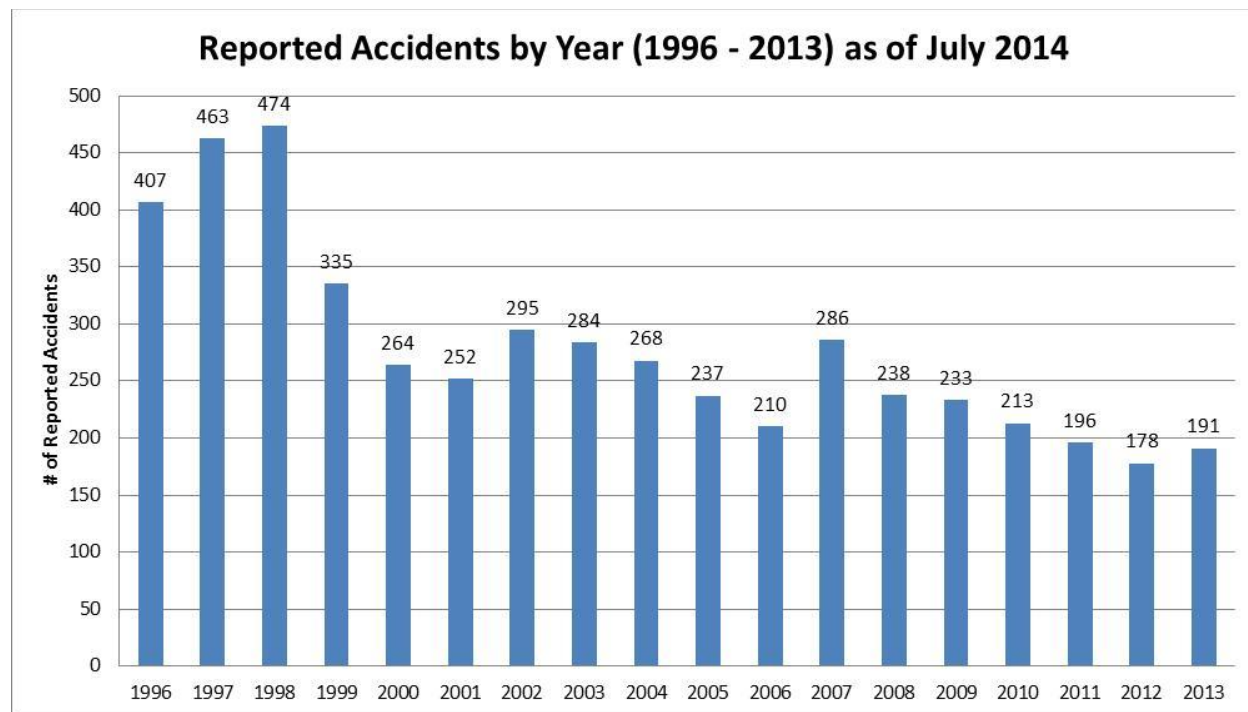
- Perform a hazard assessment that estimates the harmful effects of serious chemical releases from the facility and describes the facility's history of serious accidents;
- Implement accident prevention measures such as using written safe operating procedures, maintaining the mechanical integrity of chemical process equipment, safely managing process and equipment changes, investigating process incidents, and other measures that aim to prevent serious accidents;
- Implement an emergency response program that minimizes the harmful effects of any chemical release that may occur; and
- Prepare and submit a risk management plan to the EPA. Risk management plans are collated within a single national database that contains current and historical chemical hazard information for approximately 12,500 U.S. chemical facilities.

The risk management plan describes the approach the facility is taking to prevent and mitigate chemical accidents. The plan addresses the hazards of the chemicals used by the facility, the potential consequences of worst case and other accidental chemical release scenarios, the facility's five year accident history, the chemical accident prevention program in place at the site, and the emergency response program used by the site to minimize the impacts on the public and environment should a chemical release occur.

There has been a significant decrease in accidents reported at RMP facilities since 1996. Overall accident reductions could be attributed to a number of factors including those actions taken by facilities to prevent spills. The EPA has worked to increase inspection activities at high-risk facilities, made it possible to submit risk management plans online, and provided more specialized training for RMP inspectors. These activities, along with consistent outreach with regulated communities, advancing technologies, and improved safety systems, may have helped to maximize the effectiveness of prevention and preparedness at chemical facilities.

¹⁷⁴ For additional information, visit: <https://www.osha.gov/chemicalexecutiveorder/index.html>.

The EPA targets 460¹⁷⁵ RMP inspections per year. There are approximately 12,500 RMP facilities. These facilities reported, on average, about 243 incidents per year over the time period 2000–2012 (latest year with most complete data set), compared to an average of 420 per year for the years 1996–1999. These RMP incidents resulted in deaths, injuries, or significant property damage on site or known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage. While the drop in incident rate after the implementation of the RMP regulation is promising, chemical incidents continue to occur at facilities both regulated and not regulated by RMP. Thus, the agency will continue to conduct inspections and provide technical assistance, to further reduce chemical incidents.



Facilities are required to update their risk management plans at least once every five years or sooner if major changes are made at the facility. The EPA provides RMP data upon request to state and local emergency planning entities and to other federal agencies, such as the DHS and the U.S. Chemical Safety Board. The EPA’s RMP regulation works together with DHS’s Chemical Facility Anti-Terrorism Standards (CFATS) rule to cover all potential causes of hazardous substance release. CFATS addresses facility security and acts of malfeasance while the Risk Management program focuses on processes, equipment, and accidental events.

Under EPCRA, State Emergency Response Commissions (SERCs), Tribal Emergency Response Commissions (TERCs), and Local Emergency Planning Committees (LEPCs) were formed to serve as the infrastructure for local emergency planning and to inform the public about chemicals in their community. In order to accomplish this goal, the requirements of EPCRA stipulate that facilities provide information to the SERCs and LEPCs about the chemical they produce, use, and store. LEPCs use this information to develop local emergency response plans and work with

¹⁷⁵ FY 2015 targets were reduced due to resource constraints in the FY 2015 Enacted bill. The FY 2016 target is similarly dependent upon receipt of the requested level of funding.

facilities to reduce chemical risks and improve chemical facility safety, as well as make available to the public information on the chemicals risks in their community.

FY 2016 Activities and Performance Plan:

The Clean Air Act requires the EPA to conduct inspections at RMP facilities to ensure their compliance with the regulations. The EPA has identified approximately 12,500 RMP facilities nationwide. These facilities represent the largest identified stockpiles of highly toxic and flammable industrial chemicals in the United States. Of these, approximately 1,900 facilities have been designated as “high-risk” based upon their accident history, extremely large quantity of chemicals on site, or proximity to large residential populations. While the EPA is responsible for oversight of all RMP facilities, the agency places special focus on high-risk RMP facilities because of their potential for causing great damage to the public and environment in the event of an accident. However, oversight and inspections at high-risk facilities require more resources, including technical experts and time, due to their complex processes, larger scale, and potential risk.

In FY 2016, the EPA will continue to focus attention on identifying where the most significant vulnerabilities exist, in terms of scale and potential risk, which includes the following activities:

- Provide national coordination for chemical accident prevention and emergency response planning program policy, inspections, compliance, and enforcement;
- Conduct program oversight, monitoring, and support for the Computer-Aided Management of Emergency Operations (CAMEO) system;
- Conduct training for the EPA and state implementing agency RMP and EPCRA inspectors;
- Continue efforts to identify facilities that did not file RMPs by comparing the list of current RMP facilities against other available data sources;
- Work with state and local governments to provide outreach and training on EPCRA and RMP; and
- Conduct RMP and EPCRA compliance inspections at regulated facilities

In FY 2016, ongoing RMP and EPCRA efforts supporting the EO for Chemical Facility Safety will continue. With realigned resources, the agency will improve chemical facility safety and security and support implementation of the EO Action Plan for improving chemical facilities safety. This increased effort will assist local communities in planning and working with facilities to improve the safety and security of chemical facilities and reduce the risks of hazardous chemicals to workers and communities.

The EPA will continue to maintain the RMP database, which is the nation’s premier source for information on chemical process risks, and will share data with other federal, state, Tribal and local partners that need the best and latest information on hazardous chemical facility risks. The EPA will coordinate with the DHS to periodically analyze the risk management plan and CFATS data in order to identify chemical facilities that may not have provided all required information or may be non-compliant with Federal requirements to ensure chemical facility safety.

The EPA will continue to review and enhance training for RMP and EPCRA inspectors and will work with federal and state partners to cross-train inspectors in order to leverage the information collected.

In FY 2016, the EPA will continue support for the EO on Chemical Facility Safety by:

- Expanding support for local communities through the development of tools and technical support. This includes enhancing the CAMEO software suite. The CAMEO enhancement would include the development of a web-based CAMEO, which provides easy accessibility for SERCs/LEPCs. These efforts may also include developing appropriate updates, alerts, advisories, and other materials for regulated facilities, states, LEPCs, and emergency responders to assist them in preventing, preparing for, and responding to chemical accidents and reducing chemical risks;
- Modernizing the RMP regulations to enhance the Federal regulatory framework for prevention and mitigation of chemical accidents. This could include developing and revising guidance and policies to better implement the RMP and EPCRA programs, and clarify and/or revise RMP regulations to improve facility prevention programs and reduce chemical risks to the community;
- Initiating an expanded inspector training curriculum to include advanced process safety training courses in several key areas such as mechanical integrity codes and standards, root cause investigation, and human error prevention. Continue development of training for SERCs/LEPCs on the key requirements under EPCRA; and
- Developing, initiating and delivering training to aid with expansive outreach and planning for local communities, planners, and responders. This will assist local planners and first responders on how to use the risk information available to them to develop and exercise a plan and work with facilities; to reduce the risk and remain vigilant about exercising that plan for all potential chemical risks; to communicate to the public what they need to do if an accident occurs; and maintain a dialogue with facilities.

Performance Targets:

Measure	(CH2) Number of risk management plan inspections conducted.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	400	400	560	530	500	460	460	460	Inspections
Actual	654	618	630	652	539	466			

The funding requested will enable the EPA to conduct 460 RMP facility inspections in FY 2016. Of these inspections, 36 percent will be conducted at high risk facilities.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$588.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.

- (+\$11,529.0 / +0.7 FTE) This program change reflects an increase in resources to improve chemical facility safety and security and support implementation of EO 13650. This increase enhances related program capabilities, specifically including:
 - \$5 million to enhance the CAMEO system to include the development of a web-based CAMEO that provides easy accessibility for SERCs and LEPCs;
 - \$1.5 million to develop the RMP rule in accordance with the action plan developed under the EO;
 - \$4 million to develop, initiate and deliver training to aid with expansive outreach, and planning for local communities, SERCS/LEPCs, planners, responders and inspectors; and
 - \$1 million to assist with for high risk facility RMP inspections.

Statutory Authority:

Emergency Planning and Community Right-to-Know Act (EPCRA), 42 U.S.C. 11001 et seq. – Sections 11001-11023 and the Clean Air Act, as amended by the Chemical Safety Information, Site Security, and Fuels Regulatory Relief Act, 42 U.S.C. 7401 et seq. – Section 112(r).

TRI / Right to Know

Program Area: Information Exchange / Outreach

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$13,765.0	\$14,616.0	\$14,691.0	\$75.0
Total Budget Authority / Obligations	\$13,765.0	\$14,616.0	\$14,691.0	\$75.0
Total Workyears	43.0	44.7	43.5	-1.2

Program Project Description:

The EPA’s success in carrying out its mission to protect human health and the environment is contingent on collecting timely, high-quality and relevant information. The Toxics Release Inventory (TRI) program¹⁷⁶ supports the EPA’s mission by annually publishing, for the public, release and other waste management (e.g., recycling) and pollution prevention data on over 650 toxic chemicals from approximately 20,000 industrial and federal facilities. TRI data help inform communities and other stakeholders about toxic chemical releases and other waste management and pollution prevention practices by facilities in their neighborhoods and across the nation. It also can be used to help ensure facility compliance with environmental laws and regulations, as well as promote pollution prevention and source reduction activities by facilities. Due to the broad scope and timeliness of the data, the TRI Program (which operates under Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and Section 6607 of the Pollution Prevention Act of 1990), is a premiere source of toxic chemical release data for communities, non-governmental organizations, industrial facilities, academia, and government agencies.

With the implementation of the rule on “Electronic Reporting of Toxics Release Inventory Data,”¹⁷⁷ effective January 21, 2014, facilities are required to report non-trade secret TRI data to the EPA using electronic software provided by the agency. Electronic reporting of TRI data provides numerous benefits to the EPA, the regulated community and the public in delivering transparent, readily available and understandable data more quickly to the public while decreasing the time needed for facilities to complete the reporting form and decreasing the cost to the EPA of processing forms.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to enhance the regulatory foundation of TRI to ensure that communities have access to timely and meaningful data on toxic chemical releases and other waste management, and pollution prevention activities of facilities. As part of this effort, the TRI program will continue to clarify toxic chemical reporting requirements, improve the reporting

¹⁷⁶ For more information, visit: <http://www.epa.gov/tri/>.

¹⁷⁷ For more information, visit: <http://www.gpo.gov/fdsys/pkg/FR-2013-08-27/pdf/2013-20744.pdf>.

experience, explore opportunities for how this valuable information can be used and share pollution prevention approaches.

The TRI program provides facilities with an online reporting application, TRI-MEweb, to facilitate the electronic preparation and submission of TRI reports using the EPA’s Central Data Exchange (CDX). CDX manages access and authentication services for TRI. In particular, it provides a third-party authentication for reporting facilities using Lexis/Nexis. In addition, TRI data collected by the EPA are shared with states who have an active node on CDX and are partners of the TRI Data Exchange (TDX). Facilities located in states that participate in this exchange, submit reports to the EPA, through CDX. The data are then downloaded by the states or transferred to their nodes using TDX. The EPA will continue to encourage greater participation in the TDX by states, tribes and territories, thereby reducing reporting burdens on TRI facilities.

In FY 2016, the TRI program will continue to conduct at least 600 data quality checks to help ensure the accuracy and completeness of the reported data. The TRI program also will provide compliance assistance and enforcement support to the EPA’s Enforcement and Compliance Assurance programs by supplying facility target lists developed through the comparison of TRI reporting with facility reporting to other EPA programs (*e.g.*, air permits required by the Clean Air Act (CAA)). In FY 2016, the TRI program will continue to make the data available to the public within weeks after the July 1st reporting deadline. The data will be available as downloadable data files (via the TRI website and Data.gov) and through online analytical tools such as Envirofacts and TRI Explorer.

The TRI program will continue to publish the annual TRI National Analysis, describing relevant trends in toxic chemical releases and other waste management; industry sector profiles and parent company analyses; and TRI information reported from facilities in specific urban communities, large aquatic ecosystems, Indian country, and Alaska Native Villages. The TRI program will continue to foster stakeholder discussions and collaboration in analyzing and using the TRI data. In FY 2016, the stakeholders will continue to include industry, government, academia, non-governmental organizations, and the public.

Performance Targets:

Measure	(998) EPA's TRI program will work with partners to conduct data quality checks to enhance accuracy and reliability of environmental data.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target					500	500	600	600	Quality Checks
Actual					600	600			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$654.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$579.0 / -1.2 FTE) This program change reflects the consolidation of contract and administrative support for the TRI program.

Statutory Authority:

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and Section 6607 of the Pollution Prevention Act of 1990 (PPA).

Tribal - Capacity Building

Program Area: Information Exchange / Outreach

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Strengthen Human Health and Environmental Protection in Indian Country

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$13,749.5</i>	<i>\$14,063.0</i>	<i>\$15,600.0</i>	<i>\$1,537.0</i>
Total Budget Authority / Obligations	\$13,749.5	\$14,063.0	\$15,600.0	\$1,537.0
Total Workyears	86.2	86.6	87.9	1.3

Program Project Description:

Under federal environmental statutes, the EPA has responsibility for protecting human health and the environment in Indian country. Under the EPA's 1984 Indian Policy¹⁷⁸, the agency works with tribes on a government-to-government basis in recognition of the federal government's trust responsibility to federally recognized tribes and that the "EPA recognizes tribes as the primary parties for setting standards, making environmental policy decisions, and managing programs for reservations consistent with agency standards and regulations."

The EPA's American Indian Environmental Office (AIEO) leads agency wide efforts to ensure environmental protection in Indian country. Please see <http://www.epa.gov/tribal/> for more information.

FY 2016 Activities and Performance Plan:

Overall, the agency has made steady progress towards strengthening human health and environmental protection on tribal lands, however we continue to face significant challenges that far exceed the EPA investments. While the needs and diversity of issues grow in Indian country, the EPA's investment has struggled historically to keep pace, and the level of Tribal investments have lagged behind State investments.

Agency guidelines to define the EPA's direct implementation responsibilities in Indian country will help prioritize the EPA's resources to address the most important environmental issues. The agency will further its priority of strengthening Tribal partnerships and continue to work toward its goal of building Tribal capacity through a number of mechanisms in FY 2016.

Capacity Building: The EPA continues to provide technical assistance to encourage development of Tribal capacity to implement federal environmental programs through several means, including the use of the Direct Implementation Tribal Cooperative Agreement (DITCA) authority and the "treatment in a manner similar to a state" (TAS) process. To date, 95 TAS

¹⁷⁸ EPA Policy for the Administration of Environmental Programs on Indian Reservations.-
<http://www.epa.gov/tribalportal/pdf/indian-policy-84.pdf>

program delegations to tribes have been approved, and 24 tribes currently have DITCAs, while the number of tribes seeking TAS status has plateaued.

In FY 2016, the agency plans to continue its targeted technical assistance and support in response to requests from Tribal governments to help them build capacity to acquire TAS status for environmental programs. The agency has begun to review how it measures and reports on the progress tribes have made in developing and implementing environmental protection programs in Indian country. This effort will build on the 2013 Indian General Assistance Program (GAP) Guidance¹⁷⁹ designed to improve tribal capacity development milestones and expand on the current set of indicators. In FY 2017, the EPA will include an improved set of performance measures to assess and report on Tribal environmental program capacity. This new scheme will require modifications to existing data collection systems.

Tribal EcoAmbassadors: : In FY 2016, the agency will continue to support environmental research projects with Tribal Colleges and Universities that will expand capacity to address issues of concern in Tribal communities. These Tribal EcoAmbassador projects¹⁸⁰ have benefitted the professors and students involved, while demonstrating an ability to focus resources and leverage support within Tribal communities. Examples of projects from this successful Program include the development of a new, carbon-negative building material, using TEK to reduce biotoxins in local shellfish, the development of separate online courses on tribal food sovereignty and toxic accumulation, and using native species as an indicator of Hg loads in local streams. This priority effort has enabled the EPA to build Tribal environmental capacities of future environmental professionals and focus on community-based environmental issues that were otherwise not being addressed.

Indian Environmental General Assistance Program (GAP) Capacity Building Support: GAP grants to Tribal governments help build the basic components of a Tribal environmental program. In May 2013, the EPA published the new “*Guidance on the Award and Management of General Assistance Agreements for Tribes and Intertribal Consortia.*”¹⁸¹ In FY 2016, the EPA will continue to implement this Guidance to enhance the EPA-Tribal partnerships supported by GAP by establishing a framework for joint strategic planning with the agency, identifying mutual responsibilities for environmental protection, and targeting resources to build Tribal environmental program capacities. The agency will work with tribes to develop the EPA-Tribal Environmental Plans (ETEPs) that reflect intermediate and long-term goals for developing, establishing, and implementing environmental protection programs and will link these goals with GAP work plans. ETEPs help tribes and the EPA identify mutual roles and responsibilities for addressing particular environmental priorities and issues, focusing on joint planning and priority-setting, and increasing flexibility to direct resources to the most pressing environmental problems and measuring results. The EPA also will use baseline capacity data for media-specific Tribal environmental protection programs to inform development of new performance measures for Tribal capacity. In addition, staff training on the development of ETEPs and use of the Guidance will be an important continuing focus in FY 2016.

¹⁷⁹ <http://www.epa.gov/tribalportal/GAP-guidance-final.pdf>.

¹⁸⁰ Please refer to: <http://www.epa.gov/ecoambassadors/tribal/> for further information.

¹⁸¹ “*Guidance on the Award and Management of General Assistance Agreements for Tribes and Intertribal Consortia* - <http://www.epa.gov/tribalportal/GAP-guidance-final.pdf>.

GAP Online: In addition to the improved measurement scheme noted above, the EPA will continue to use GAP Online, an internet-based database that assists tribes and the EPA in developing, reviewing, and archiving GAP work plans and progress reports. The EPA and tribes use the database to negotiate and track progress with individual grantees, as an easily accessible record to help mitigate the negative impacts from relatively high rates of staff turnover in many Tribal environmental departments. GAP Online will provide enhanced capabilities for the EPA to assess and understand the levels of Tribal capacity development that will align with specific media program development indicators, consistent with the GAP Guidance.

Tribal Program Management System: Based on a comprehensive review to streamline agency processes, conserve agency resources and increase efficiencies in all the information technology of the EPA Tribal programs, the EPA decided to shut down the operations and maintenance of the Tribal Program Management System (TPMS) in FY 2014. The EPA will rely on existing databases and information sources within the EPA to gather and report on essential program data that were historically tracked and reported by TPMS.

Tribal Consultation: In May 2011, the EPA released its “*Policy on Consultation and Coordination Policy with Indian Tribes*,”¹⁸² consistent with the President’s 2009 Memorandum on implementing E.O. 13175. The final policy builds on the EPA’s 1984 Indian Policy and reflects the Administration’s commitment to strengthen Tribal partnerships by establishing clear agency standards for the consultation process, which promote consistency and coordination. In FY 2016, the EPA will continue to enhance and support the agency’s web-based Tribal Consultation Opportunities Tracking System (TCOTS). TCOTS is a publically accessible database used to communicate upcoming and current EPA consultation opportunities for Tribal governments. The system provides a management, oversight and reporting structure that helps ensure accountability and transparency on EPA consultations with Tribal governments. Over the past three years, the EPA has provided 238 consultations opportunities to tribal governments.

National Tribal Operations Committee: Nineteen Tribal government leaders and the agency’s Senior Leadership Team serve on the EPA’s National Tribal Operations Committee¹⁸³ (NTOC). The Tribal leaders, known as the National Tribal Caucus (NTC), comprise a subset of the NTOC and provide recommendations and feedback to the agency on environmental issues of national significance affecting tribes. In FY 2016, the NTOC will continue to identify new ways of doing business so that we streamline processes, increase availability of existing resources for the most important environmental work, leverage resources, enhance government-to-government partnerships, and reduce administrative burden.

Interagency Collaboration: The EPA will continue to improve its interagency collaboration through the Infrastructure Task Force and with the support of the White House Council on Native American Affairs. In FY 2016, the EPA will continue to co-lead a subgroup under the Council to provide tribes with data and information, improve Federal collaboration, and assist with climate change adaptation and mitigation efforts.

¹⁸² Please refer to: <http://www.epa.gov/tribalportal/pdf/cons-and-coord-with-indian-tribes-policy.pdf> for further information.

¹⁸³ [Http://www.epa.gov/tribalportal/contact](http://www.epa.gov/tribalportal/contact).

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$553.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$984.0 / +1.3 FTE) This program change supports Tribal capacity efforts through developing and implementing joint strategic planning agreements, or EPA-Tribal Environmental Plans, between each tribe and the EPA, programmatic support of grants to rural Alaskan communities, implementing required IT data modifications to strengthen management on the over 500 annually awarded GAP grants, and capturing improved indicators for assessing tribes' and the EPA's progress on environmental program capacity development.

Statutory Authority:

Annual Appropriation Acts; Indian Environmental General Assistance Program Act; PPA; FIFRA; CAA; TSCA; NEPA; CWA; SDWA; RCRA; CERCLA; NAFTA; MPRSA; Indoor Radon Abatement Act; OPA; and additional authorities.

Work within this Tribal Capacity Building Program supports the above authorities, as well as additional statutory authorities that influence environmental protection and affect human health and environmental protection in Indian country.

Program Area: International Programs

US Mexico Border

Program Area: International Programs

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$3,607.7	\$2,978.0	\$3,307.0	\$329.0
Total Budget Authority / Obligations	\$3,607.7	\$2,978.0	\$3,307.0	\$329.0
Total Workyears	17.4	14.7	14.7	0.0

Program Project Description:

The two thousand-mile border between the United States and Mexico is one of the most complex and dynamic regions in the world, where the benefits of the EPA's international programs are perhaps most apparent. This region accounts for three of the ten poorest counties in the U.S., with an unemployment rate 250-300 percent higher than the rest of the United States.¹⁸⁴ In addition, over 430 thousand of the 14 million people in the region live in 1,200 colonias,¹⁸⁵ which are unincorporated communities characterized by substandard housing and unsafe drinking water. Still, the 1983 La Paz Agreement¹⁸⁶ and the adoption of the Border 2012 program in 2003 have gone a long way to protect and improve the health and environmental conditions along a border that extends from the Gulf of Mexico to the Pacific Ocean.

The Border 2020 program, adopted by the EPA in August 2012, builds on the successes of the Border 2012 program and lays out a roadmap for continued environmental cooperation over the next eight years. The Border 2020 program, like its predecessor, emphasizes local priority-setting, focuses on measurable environmental results, and encourages broad public participation. Border 2020 builds on the 2012 program¹⁸⁷ work, which includes removing more than 13 million scrap tires from the Border, establishing drinking water connections for more than 54,000 homes and adequate wastewater connections for over half a million homes; in addition to highlighting regional areas where environmental improvements are most needed, establishing thematic goals supporting the implementation of projects, considering new fundamental strategies, and encouraging the achievements of more ambitious environmental and public health goals.

The Border 2020 program identifies five long-term strategic goals to address the serious environmental and environmentally-related public health challenges, including the impact of transboundary transport of pollutants in the border region. These goals include: reducing air pollution; improving access to clean and safe water; promoting materials management, waste management, and clean sites; enhancing joint preparedness for environmental response; and enhancing compliance assurance and environmental stewardship.

¹⁸⁴ <http://www.nmsu.edu/~bec/BEC/Readings/10.USMBHC-TheBorderAtAGlance.pdf>.

¹⁸⁵ http://www.borderhealth.org/border_region.php.

¹⁸⁶ <http://www.epa.gov/Border2012/docs/LaPazAgreement.pdf>.

¹⁸⁷ http://www2.epa.gov/sites/production/files/documents/b2012closeout_eng.pdf.

The EPA and the Mexican Environment Secretariat (SEMARNAT) will continue to closely collaborate with the 10 border states (four U.S. / six Mexican), 26 U.S. federally-recognized Indian tribes, and local communities in prioritizing and implementing projects that address their particular needs.

Note: The border water and wastewater infrastructure programs are described in the State and Tribal Assistance Grants (STAG) appropriation, Infrastructure Assistance: Mexico Border Program.

FY 2016 Activities and Performance Plan:

Several border sister cities do not yet meet health-based air quality standards, especially for particulate matter and/or ozone, resulting in negative effects on public health, including higher incidence rates for asthma and increased health-related school absences for children in the region. These sister cities include: San Diego/Tijuana, Imperial County/Mexicali, Ambos Nogales, and El Paso/Juárez and the lower Rio Bravo valley. Sources of air emissions are diverse but often include passenger vehicles, buses, diesel trucks, manufacturing and electricity generation, dust from unpaved roads, and agricultural practices - including open burning. The EPA will continue to work with state and local constituencies to develop community-level strategies and responsibilities for reducing these emissions.

In addition, the EPA and SEMARNAT will build on the successful air quality work conducted thus far, which has resulted in: complete greenhouse gas emissions inventories for each Mexico border state; mandatory vehicle-smog checks in Baja, California expected to reduce vehicle emissions by 12 to 24 percent annually, a significant decrease in pollutants, and improved public health. In FY 2016, the EPA will continue to focus on air pollution reductions in binational airsheds, work on reducing greenhouse gas emissions through energy efficiency and alternatives or renewable energy projects, and by FY 2018, maintaining effective air quality monitoring networks and timely access to air quality data along the border region.

Watersheds in the U.S.-Mexico border region are shared bilaterally, with rivers flowing from one country to the other or forming the international boundary (usually flowing north from Mexico into the U.S. The border region faces significant challenges associated with the shared watersheds exacerbated by high population growth rates and potential impacts of climate change. Under the Border 2020's water goal, Mexico and the U.S. expect to promote the increase in the number of homes connected to safe drinking water by calendar year 2015 to at least 5,000 thousand homes and homes connected to adequate wastewater sanitation to at least 42,000 thousand people; help drinking water and wastewater utilities implement sustainable infrastructure practices to reduce operating costs, improve energy efficiency, use water efficiently, and adapt to climate change; reduce surface water contamination in transboundary waterbodies and watersheds; and provide the public with timely access to water quality data.

Each region of the northern border presents different economic, social and cultural situations, bringing as a result the generation of waste and secondary materials. Sustainable priority waste goals can be achieved by creating or increasing institutional capabilities through adequate planning and technical assistance, thus enabling the development of programs, projects or actions

taking into account the life cycle analysis and the support recycling markets for the materials contained in the waste that would otherwise be lost in landfills. One project, the Rio Rico Landfill currently in development in Arizona, is estimated to recover as much as 500 standard cubic feet per minute in landfill gases and sustain electric generation of more than 7 million kW hours annually for 30 years. The EPA Border 2020 will lead smaller-scale projects focused on efforts at the community level to promote Materials and Waste Management and Clean sites by developing the capacity to improve collection and recycling of e-waste, plastics and trash; continue the work to reduce and prevent scrap tire piles; and develop institutions' capacity to clean up border contaminated sites. The EPA will collaborate and partner on sustainable waste stream demonstration projects to develop and improve the collection of materials, such as plastic bottles, through public-private partnership programs and infrastructure investments in the border region to avoid costly cleanup efforts.

Additionally, the two countries will work together to enhance joint preparedness for environmental response and facilitate easier transboundary movement of equipment and personnel. Finally, Mexico and the U.S. will work to improve information sharing among enforcement agencies on the movement of hazardous waste across the border using the Toxics Release Inventory (in the U.S.) and the Emissions and Contaminant Transfer Registry (RETC in Mexico).

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$141.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$188.0) This program increase implements Border priorities focusing on smaller scale sustainability and capacity building projects designed to improve the environment and protect the health of the nearly 14 million people living along the U.S.-Mexico border. Increased support is needed in order to administer many smaller-scale projects; the EPA will provide outreach and assistance to an expanded pool of eligible communities where these smaller-scale projects are being implemented.

Statutory Authority:

In conjunction with NEPA section 102(2)(F): CAA 103(a), 42 U.S.C. 7403(a); CWA 104(a)(1) and (2), 33 U.S.C. 1254(a)(1) and (2); SDWA 1442(a)(1), 42 U.S.C. 300j-1(a)(1); SWDA 8001(a)(1), 42 U.S.C. 6981(a)(1); FIFRA §17(d) and 20(a) , 7 U.S.C. §136o(d) and 136r(a); TSCA§10(a) of the Toxic Substances Control Act (TSCA), 15 U.S.C. §2609(a) (in consultation and cooperation with the Department of Health and Human Services and with other appropriate departments and agencies); MPRSA 203(a)(1), 33 U.S.C. 1443(a)(1), 42 U.S.C. 4332; Annual Appropriation Acts.

International Sources of Pollution

Program Area: International Programs

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$6,673.7	\$6,938.0	\$7,245.0	\$307.0
Total Budget Authority / Obligations	\$6,673.7	\$6,938.0	\$7,245.0	\$307.0
Total Workyears	38.6	40.2	38.2	-2.0

Program Project Description:

To achieve our domestic environmental objectives, it is important for the U.S. to work with international partners to address international sources of pollution, as well as the impacts of pollution from the U.S. on other countries and the global environment. Countries such as Canada, Mexico, Brazil, Russia, China, and regions including Asia, Africa, Latin America, and the Middle East, are necessary partners in addressing these issues. The EPA’s work with international organizations such as the United Nations Environment Program (UNEP), the Organization for Economic Cooperation and Development (OECD), and the Arctic Council are essential to successfully addressing the EPA’s six priority areas for international action: **Building Strong Environmental Institutions and Legal Structures; Combating Climate Change by Limiting Pollutants; Improving Air Quality; Expanding Access to Clean Water; Reducing Exposure to Toxic Chemicals; and Cleaning Up Electronic (E-Waste).**

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to engage both bilaterally and through multilateral institutions with the objective of improving international cooperation to address the transboundary movement of pollution. Specifically, the EPA will address air pollution and air quality with international partners that contribute significant pollution to the environment and are committed to improving their environmental performance. For example, China is improving regional air quality monitoring, planning and control strategies with advice and lessons learned from the United States. In addition, the EPA will facilitate partnerships among smaller emerging economies, where implementation of air quality management programs can avoid increased contribution to transboundary pollutants.

In FY 2016, the EPA will continue its work in the Partnership for Clean Fuels and Vehicles (PCFV), a global partnership that has worked to reduce air pollution from the global fleet of on-road vehicles. The World Health Organization recognizes air pollution as a major global health threat¹⁸⁸, and vehicles are a significant source of this pollution. The global vehicle fleet is

¹⁸⁸ World Health Organization, Ambient (outdoor) air quality and health; Fact sheet N°313 updated March 2014; <http://www.who.int/mediacentre/factsheets/fs313/en/>.

predicted to grow significantly by calendar year 2050, tripling from calendar year 2010 levels¹⁸⁹, while the subset of this fleet in the developing world is growing faster than in any other region. Reducing harmful vehicle emissions is critical to protecting human health, as well as mitigating GHG emissions.

The EPA also will continue its efforts to reduce transboundary pollution from ships, which carry most goods in international trade. Absent intervention, maritime traffic levels and emissions will increase in the future,¹⁹⁰ as global trade increases and global climate change increases access to Arctic shipping lanes and resources. In Mexico, in particular, shipping comprises a significant source of air pollution, so the EPA will continue to work with Mexico to establish an Emission Control Area (ECA) for ships in its water. The creation of an ECA is estimated to yield vital health and environmental benefits not only in Mexico but also in bordering U.S.

In November 2013, the U.S. signed and joined the legally binding Minamata Convention on Mercury, which is directed at reducing global mercury pollution,¹⁹¹ meaning that the United States will become a Party when the Convention enters into force. In calendar year 2016, the Convention is expected to reach the 50 Parties needed for entry into force. In FY 2016, the EPA will continue to work with international partners and key countries to fully implement the Convention's obligations in order to protect the U.S. population from mercury emissions originating in other countries. The EPA will also continue technical and policy leadership for global and regional efforts to address international sources of mercury use and emissions.

In FY 2016, the EPA will continue to strengthen partnerships to address environmental problems and build capacity in areas such as green growth technologies, urban sustainability, and environmental laws and legal institutions. The EPA will lead U.S. Government efforts to advance the new Green Growth Strategy in the Organization for Economic Co-operation and Development (OECD) and U.S. interagency processes concentrating on promoting green jobs, sustainable development, and the economic benefits of strengthening environmental protections both domestically and worldwide. For example, the EPA continues to implement the Export Promotion Strategy developed in FY 2014 as part of the Department of Commerce's overall effort to expand the reach of the U.S. environmental technologies industry, which generates approximately \$319 billion in revenue and supports 1.7 million domestic jobs. The EPA also will continue its work with OECD and the UNEP 10 Year Framework of Programmes on Sustainable Consumption and Production (10YFP) to promote U.S. approaches to life cycle assessment, consumer access to information, and standards and best practices for sustainable public procurement. In addition, the EPA will also continue its work in Brazil that promote opportunities and partnerships for urban infrastructure development that achieve integrated economic, social, and environmental benefits.

In FY 2016, the EPA also will continue to strengthen our activities in the Arctic by working with Alaska, Tribes, federal agencies, and the private sector to build international support for U.S. environmental policy objectives through the Arctic Council. These objectives cover a range of

¹⁸⁹ OECD International Transport Forum: Transport Outlook 2012, <http://www.internationaltransportforum.org/Pub/pdf/12Outlook.pdf>

¹⁹⁰ Ibid.

¹⁹¹ <http://www.epa.gov/international/toxics/mercury/mnegotiations.html>; www.mercuryconvention.org;

topics, including reducing emissions and exposure to mercury and short-lived climate pollutants - black carbon,¹⁹² in particular. These actions will help lay the groundwork for the U.S. government assuming the 2015-2017 Chairmanship of the Arctic Council and support the National Strategy for the Arctic Region.¹⁹³ Beyond the Arctic region, the EPA will continue to work with the State Department, UNEP, and other international partners as part of the international Climate and Clean Air Coalition (CCAC), with the goal to realize immediate climate, health, and other benefits of reducing short-lived climate pollutants at a sufficient scale locally and regionally.

Collaboration with global partners is needed to build upon awareness of water pollution issues, including those that impact drinking water, and to promote watershed and marine environmental protection issues. For FY 2016, the EPA will continue to work with Africa, Asia, and Latin America to promote clean water and drinking water programs in those regions, focusing on improving the quality of water sources and managing other environmental risks. The EPA will also advance practical approaches to protecting marine and coastal communities and environments from land-based sources of pollution, including wastewater, nutrients, and marine debris.

In FY 2016, the EPA will strengthen implementation of global, regional, and country programs to address electronic waste (e-waste) and promote sound reuse and recycling of discarded used electronics. The EPA will continue to collaborate with other countries on environmentally sound management of e-waste to help reduce risks from exposure to toxic substances contained in e-waste such as lead, mercury, cadmium, and hexavalent chromium. The EPA will also continue to support improved information and data on e-waste volumes, flows, and management approaches, including by partnering with international organizations such as the UN University Solving the E-waste Problem Initiative and by engaging in technical and policy discussions under the Basel Convention. These efforts support the National Strategy for Electronics Stewardship¹⁹⁴ released in July 2011.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$506.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$199.0 / -2.0 FTE) This program change decreases the EPA's efforts to address and mitigate significant sources of international pollution, such as sources of hazardous waste, mercury, and black carbon. In addition, the agency continues to redesign many core business processes which may impact international efforts such as the London Convention and regional environmental work for Central and Eastern Europe.

¹⁹² <http://www.epa.gov/blackcarbon/basic.html>.

¹⁹³ http://www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf.

¹⁹⁴ <http://www.epa.gov/osw/conservematerials/ecycling/taskforce/docs/strategy.pdf>.

Statutory Authority:

In conjunction with NEPA section 102(2)(F)¹⁹⁵: CAA 103(a), 42 U.S.C. 7403(a); CWA 104(a)(1) and (2), 33 U.S.C. 1254(a)(1) and (2); SDWA 1442(a)(1), 42 U.S.C. 300j-1(a)(1); SWDA 8001(a)(1), 42 U.S.C. 6981(a)(1); FIFRA §17(d) and 20(a) , 7 U.S.C. §136o(d) and 136r(a); TSCA§10(a) of the Toxic Substances Control Act (TSCA), 15 U.S.C. §2609(a) (in consultation and cooperation with the Department of Health and Human Services and with other appropriate departments and agencies); MPRSA 203(a)(1), 33 U.S.C. 1443(a)(1), 42 USC 43, Annual Appropriation Acts.

¹⁹⁵ Section 102(2)(F) of the National Environmental Policy Act (NEPA), 42 U.S.C. §4332(2)(F), directs all Federal agencies, where consistent with the foreign policy of the United States, to lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of the world environment. EPA construes the explicit authority to conduct education and training and to render technical assistance contained in the statutes cited above, as supplemented by §102(2)(F) of NEPA, as implicitly supporting activities which will benefit foreign governments and foreign, international, and domestic organizations in the international arena to protect the quality of the environment.

Trade and Governance

Program Area: International Programs

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$5,761.3	\$5,484.0	\$6,009.0	\$525.0
Total Budget Authority / Obligations	\$5,761.3	\$5,484.0	\$6,009.0	\$525.0
Total Workyears	18.5	18.0	18.0	0.0

Program Project Description:

The nexus between environmental protection and international trade has long been a priority for the EPA. Since the 1972 Trade Act mandated the U.S. Trade Representative engage in interagency consultations, the EPA has played a key role in trade policy development. Specifically, the EPA is a member of the Trade Policy Staff Committee (TPSC) and the Trade Policy Review Group (TPRG) - interagency mechanisms that provide advice, guidance, and clearance to the Office of the U.S. Trade Representative (USTR) in the development of U.S. international trade and investment policy.

It is now understood that trade influences the nature and scope of economic activity and therefore the levels of pollution emissions and natural resource use. As such, the EPA seeks to mitigate the potential domestic and global environmental effects from trade and to prevent any potential conflicts with domestic environmental mandates. The EPA's work also helps to level the playing field with our trade partners and create export opportunities for the United States. U.S. trade with the world has grown rapidly from \$55 billion in 1963 to \$5 trillion in 2013, according to the U.S. Census Bureau, Foreign Trade Division.¹⁹⁶ This increase underscores the importance of addressing the environmental consequences associated with trade.

The EPA serves as the lead U.S. agency for implementation of the North American Agreement on Environmental Cooperation (NAAEC).¹⁹⁷ Beyond its primary objective to foster the protection and improvement of the environment in the region, NAAEC's creation represents a commitment by the U.S., Canada, and Mexico to integrate environmental protection considerations into their trade negotiations. As the first environmental cooperation agreement under a trade agreement, the NAAEC paved the way for many of the EPA's subsequent efforts under other Free Trade Agreements and serves as a good example of the EPA's approach to trade-related work. Beyond NAFTA,¹⁹⁸ the EPA plays an important role in several trade negotiating fora, including the World Trade Organization (WTO) and regional and bilateral free trade agreements. The EPA also participates in the development and delivery of U.S. positions in

¹⁹⁶ <http://www.census.gov/foreign-trade/statistics/historical/>

¹⁹⁷ <http://www.cec.org/Page.asp?PageID=1226&SiteNodeID=567>

¹⁹⁸ <http://www.ustr.gov/trade-agreements/free-trade-agreements/north-american-free-trade-agreement-nafta>

other trade and economic fora, such as the Organization for Economic Cooperation and Development (OECD), Asia Pacific Economic Cooperation, and Bilateral Investment Treaties. To engage a variety of domestic stakeholders, the USTR and the EPA co-host the Trade and Environment Policy Advisory Committee (TEPAC), a Congressionally-mandated advisory group that provides advice and information in connection with the development, implementation, and administration of U.S. trade policy.

FY 2016 Activities and Performance Plan:

During FY 2016, the EPA will continue to play an important role in the United States Government's negotiation of multilateral and bilateral trade and investment agreements. We expect the Trans-Pacific Partnership Agreement (TPP), designed to promote trade throughout the Trans-Pacific region, to conclude and move into the implementation phase. In this phase, the EPA expects to provide targeted capacity building support, similar to ongoing/existing governance and capacity building under previously negotiated agreements.

In FY 2016, the EPA also will participate in the negotiations of a comprehensive trade agreement with the European Union (EU), the Transatlantic Trade and Investment Partnership (TTIP) launched by President Obama during his State of the Union Address in February 2013. In addition to the specific core environmental obligations that have become standard in all of the United States Government's recent trade agreements, TTIP contains a number of elements that could directly or indirectly affect the EPA, including provisions on investment, services, regulatory coherence, and some specific sectorial provisions. The EPA will work with our interagency colleagues to ensure that the agreement promotes further cooperation with the EU on environmental issues of mutual concern without infringing upon our domestic regulatory obligations.

With negotiated agreements with South Korea, Panama, and Colombia that have recently entered into force, the EPA will provide appropriate capacity building assistance, which may include strengthening legal and regulatory frameworks to improve human health and the environment. The EPA also will continue to work with U.S. trading partners to help them meet their obligations under trade agreements and to provide input to new bilateral or regional free trade agreements and other trade and investment agreements. In addition, these agreements will promote a green economy, while fostering transparency through public participation and related expansion of opportunities for U.S. business, especially in the area of green technologies.

Together, the EPA's contributions help create and build international demand for environmental technologies and export opportunities for U.S. manufacturers throughout the world. Since the inception of the Export Promotion Strategy, the EPA has introduced the "Environmental Solutions Exporter Portal"¹⁹⁹ to promote international market opportunities for U.S. companies and launched the "Environmental Solutions Toolkit"²⁰⁰ to share U.S. approaches to key global environmental issues with international stakeholders; improved both web sites based on user feedback; broadened the issues covered by the Toolkit; conducted outreach at leading industry

¹⁹⁹ <http://www.export.gov/envirotech/>.

²⁰⁰ <https://new.export.gov/envirotech/toolkit>.

trade events, and; trained relevant U.S. Embassy personnel from the Department of Commerce and the Department of State on using EPA information to enhance international market promotion and capacity building efforts.

The EPA is working to support USTR in a domestic effort to negotiate an agreement in the WTO to eliminate tariffs on a broad range of environmental goods. This agreement has great potential to facilitate increased global access to environmental technologies and could have a significant economic impact, with the U.S. exporting \$106 billion in such goods (including air pollution control, wastewater treatment, and renewable energy equipment) last year, according to USTR. The potential for the joint environmental and economic benefits promised by this agreement complement the EPA's export promotion strategy to expand the international deployment of advanced environmental solutions.

The Commission for Environmental Cooperation (CEC) promotes environmental cooperation in North America and addresses environmental issues from a regional perspective, with a particular focus on those issues that arise in the context of deeper economic, social, and environmental linkages. In FY 2016, the EPA looks forward to continued progress in all these areas, recognizing the environmental challenges faced today significantly differ from those encountered when NAFTA was established. The agency continually looks to improve and increase the effectiveness and relevance of the cooperative work program by concentrating on projects and initiatives that provide greater environmental results. The environmental and human health challenges that are the focus of our priorities are both increasingly complex and rapidly evolving, and the EPA will work through the CEC to ensure that they appropriately consider not just environmental impacts but also social and economic impacts brought about by the continued integration of our North American economies. The EPA will also work with the CEC's Joint Public Advisory Committee to continue to raise awareness among various stakeholder groups regarding the CEC and its goals and objectives.

Beginning in July 2014, the EPA assumed the role of chair of the CEC Council, which also includes the environment ministers of Canada and Mexico, in working towards incremental trilateral collaboration consistent with each countries' national circumstances and capacities. This enables the U.S. to shape an agenda under the five-year CEC Strategic Plan promoting trilateral support to community-based adaptation projects that enhance resilience to climate change impacts on both our physical and social environments. In addition, the Chairmanship of the Council of Ministers of the CEC allows the U.S. to better promote a green growth agenda as a North American priority, based on EPA's own focus on sustainable products and purchasing, sustainable materials management, energy efficiency, and green infrastructure.

The Rio+20 Conference, held in June 2012, provided support for several global efforts related to developing sustainable economies and strengthening good environmental governance. In FY 2016, the EPA will play a lead role in advancing U.S. engagement under the 10-Year Framework of Programmes on Sustainable Consumption and Production (10YFP), adopted by governments at the Rio+20 Conference. As the U.S. National Focal Point for the 10YFP, the EPA will promote a "whole of government" engagement through convening a 10YFP interagency working group, and will advance international cooperation in key U.S. interests areas, including: sustainable public procurement; life cycle assessment; and exchanging best practices and

building professional networking through the “Global SCP Clearinghouse”, recently launched by the United Nations Environment Program (UNEP).

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$192.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$333.0) This program change reflects an increase to augment international trade environmental efforts through providing technical and policy capacity assistance under anticipated FTAs including work on the twelve country Trans-Pacific Partnership Agreement. This leads to strengthening legal and regulatory frameworks and promotes health, environment, and green economy.

Statutory Authority:

In conjunction with NEPA section 102(2)(F)²⁰¹: CAA 103(a), 42 U.S.C. 7403(a); CWA 104(a)(1) and (2), 33 U.S.C. 1254(a)(1) and (2); SDWA 1442(a)(1), 42 U.S.C. 300j-1(a)(1); SWDA 8001(a)(1), 42 U.S.C. 6981(a)(1); FIFRA §17(d) and 20(a) , 7 U.S.C. §136o(d)and 136r(a); TSCA§10(a) of the Toxic Substances Control Act (TSCA), 15 U.S.C. §2609(a) (in consultation and cooperation with the Department of Health and Human Services and with other appropriate departments and agencies); MPRSA 203(a)(1), 33 U.S.C. 1443(a)(1), 42 U.S.C. 4332; Annual Appropriation Acts; Executive Order 12915 (May 13, 1994) (implementation of NAFTA environmental side agreement); Executive Order 13141 (Environmental Review of Trade Agreements); Executive Order 13277 (Delegation of Certain Authorities and Assignment of Certain Functions Under the Trade Act of 2002), as amended by E.O. 13346 (July 8, 2004).

²⁰¹ Section 102(2)(F) of the National Environmental Policy Act (NEPA), 42 U.S.C. §4332(2)(F), directs all Federal agencies, where consistent with the foreign policy of the United States, to lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of the world environment. EPA construes the explicit authority to conduct education and training and to render technical assistance contained in the statutes cited above, as supplemented by §102(2)(F) of NEPA, as implicitly supporting activities which will benefit foreign governments and foreign, international, and domestic organizations in the international arena to protect the quality of the environment.

Program Area: IT / Data Management / Security

Information Security

Program Area: IT / Data Management / Security

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$5,861.0</i>	<i>\$6,309.0</i>	<i>\$6,666.0</i>	<i>\$357.0</i>
Hazardous Substance Superfund	\$705.1	\$683.0	\$704.0	\$21.0
Total Budget Authority / Obligations	\$6,566.1	\$6,992.0	\$7,370.0	\$378.0
Total Workyears	9.7	14.3	14.3	0.0

Program Project Description:

Information is a valuable national resource and a strategic asset to the EPA. It enables the agency to fulfill its mission to protect human health and the environment. The agency's Information Security program is designed to protect the confidentiality, availability and integrity of the EPA's information assets. The information protection strategy includes, but is not limited to: policy, procedure and practice management; information security awareness, training and education; risk-based governance and oversight; weakness remediation; operational security management; incident response and handling; and Federal Information Security Management Act (FISMA) compliance and reporting.

FY 2016 Activities and Performance Plan:

Effective information security requires vigilance and the ability to adapt to new challenges every day. The EPA will continue to protect, defend and sustain its information assets through continued improvements to policy and procedures; oversight and compliance; training and awareness; mission assurance; and incident response. This program leads the agency in redesigning IT security business processes to improve efficiency and effectiveness. In FY 2016, the EPA will build on progress made to automate and advance the information security program by:

- Increasing the use of continuous monitoring tools and processes;
- Focusing on protecting information;
- Measuring performance;
- Advancing risk management processes;
- Continuing to update and implement the information security architecture; and
- Refining incident management capabilities.

The Information Security program also will continue to build on progress made from continuous monitoring to detect and remediate the effects of Advanced Persistent Threats to the agency's information and information systems. Furthermore, the agency will continue to focus on training and user-awareness to foster desired behavior, asset definition and management, compliance, incident management, knowledge and information management, risk management and technology management. These efforts will strengthen the agency's ability to adequately protect information assets. The final result is an information security program that can rely on effective and efficient controls and processes to counter cybersecurity threats.

In FY 2016, the agency will continue Phase II of the implementation of the Homeland Security Presidential Directive 12 (HSPD-12) requirements for logical and physical access as identified in the Federal Information Processing Standards (FIPS) 201, *Personal Identity Verification (PIV) of Federal Employees and Contractors*.²⁰² This effort ensures only authorized employees have access to federal and federal-controlled facilities and information systems by requiring a higher level of identity assurance. Phase II will incorporate: physical access control management and interoperability with other federal agencies and partners.

The agency's efforts to implement the cross-agency priority goal on cybersecurity will focus on achieving 95 percent automated capability to provide enterprise-level visibility into asset inventory for all hardware assets; 95 percent automated capability to identify deviations from the approved configuration baselines and to provide visibility at the organization's enterprise level; and 95 percent hardware assets evaluated using an automated capability that scans for vulnerabilities on computing devices using the Common Vulnerabilities and Exposures (CVEs) in the National Institute of Standards and Technology's vulnerability database. Aggregated data will be visible at the organization's enterprise level.

The EPA will continue to enhance the internal Computer Security Incident Response Capability (CSIRC) to ensure rapid identification, response, alerting and reporting of suspicious activity. CSIRC's mission is to protect the EPA's information assets and respond to security incidents – actual and potential. This includes the ability to detect unauthorized attempts to access, destroy, or alter the EPA's data and information resources. CSIRC will continue to establish new, and build existing, relationships with other federal agencies and law enforcement entities to support the agency's mission. The incident response capability includes components such as tool integration, detection and analysis; forensics; and containment and eradication activities. To help ensure tools, techniques, and practices are current, CSIRC monitors new trends in information security and threat activity.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no specific performance measures for this program.

²⁰² For more information, visit: <http://www.nist.gov/itl/csd/ssa/piv.cfm>.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$644.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$287.0) This program change reflects efficiencies gained due to consolidation of reporting requirements.

Statutory Authority:

Federal Information Security Management Act (FISMA), 44 United States Code 3541 et seq. – Sections 301, 302, 303, 304, 305, 401 and 402 and Government Performance and Results Act (GPRA), 39 U.S.C. 2803 et seq. – Sections 1115, 1116, 1117, 1118 and 1119 and Government Management Reform Act (GMRA), 31 U.S.C. 501 et seq. – Sections 101, 201, 301, 401, 402, 403, 404 and 405 and Clinger-Cohen Act (CCA), 40 U.S.C. 1401 et seq. – Sections 5001, 5201, 5301, 5401, 5502, 5601 and 5701 and Paperwork Reduction Act (PRA), 44 U.S.C. 3501 et seq. – Sections 104, 105, 106, 107, 108, 109, 110, 111, 112 and 113 and Freedom of Information Act (FOIA), 5 U.S.C. 552 et seq. and Electronic Freedom of Information Act (EFOIA), 5 U.S.C. 552 et seq. – Sections 552(a)(2), 552 (a)(3), 552 (a)(4) and 552(a)(6).

IT / Data Management

Program Area: IT / Data Management / Security

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$90,118.6</i>	<i>\$84,227.0</i>	<i>\$96,395.0</i>	<i>\$12,168.0</i>
Science & Technology	\$3,860.8	\$3,089.0	\$3,196.0	\$107.0
Hazardous Substance Superfund	\$15,129.1	\$13,802.0	\$14,938.0	\$1,136.0
Total Budget Authority / Obligations	\$109,108.5	\$101,118.0	\$114,529.0	\$13,411.0
Total Workyears	453.6	469.8	478.8	9.0

Program Project Description:

The work performed under the EPA's Information Technology/Data Management (IT/DM) program supports agency priorities by providing critical IT infrastructure and data management needed for: 1) access to scientific, regulatory, policy and guidance information needed by the agency, the regulated community and the public; 2) analytical support for interpreting and understanding environmental information; 3) exchange and storage of data, analysis and computation; and 4) rapid, secure and efficient communication. These are organized by the following functional areas: information analysis and access; data management and collection; information technology and infrastructure; and geospatial information and analysis.

IT/DM program activities support the Administration's goals of transparency, participation, engagement and collaboration to expand the conversation on environmentalism and support Executive Order No. 13642 - Making Open and Machine Readable the Default for Government Information. IT/DM also supports the maintenance of the EPA's IT services that enable citizens, regulated facilities, states and other entities to interact with the EPA electronically to get the information they need on demand, to understand what it means, and to submit and share environmental data with the least cost and burden. The program also provides support to other agency IT development projects and essential technology to agency staff, enabling them to conduct their work effectively and efficiently.

FY 2016 Activities and Performance Plan:

The EPA's IT/DM functions have progressively integrated new and transformative approaches to the way IT is managed across the agency. The EPA's IT/DM services enhance the power of information by delivering on demand data to the right people at the right time. In FY 2016, the EPA will continue using data analytics, visualization, and predictive analysis methods and tools

that will help the agency explore and address environmental, business and public policy challenges. Based on EPA requirements and technology assessments completed in FY 2015, the agency will develop enterprise solutions for infrastructure and software tools. The new agency infrastructure and suite of tools will allow EPA to better harness the power of data across the agency to drive environmental results. Pilot projects, driven by agency needs and use cases, will continue in order to demonstrate tangible benefits to the agency. The analytical platform will be supported and enhanced by developing a core group of employees to ensure proper support and coordination of ongoing activities.

FY 2016 activities will proceed with significant components of the agency's work to transform its digital services as part of the EPA's efforts in becoming a High Performing Organization. Specific activities include support for field mobility software for agency field inspectors and implementation of Geoplatform smart tools and data services. Geoplatform smart tool development will focus on integrating tools for EPA grant project officers to define place of performance within the Integrated Grants Management System (IGMS NextGen), and mapping and search tools for both internal and public uses.

To ensure the agency can effectively build and deliver important digital services, the FY 2016 budget includes funding to build a Digital Service team that will focus on transforming the agency's digital services with the greatest impact to the public for easier use and more cost-effective to build and maintain. In accordance with the government wide Digital Services initiative, the EPA will launch the EPA Digital Service Team with digital experts that will work in collaboration across the agency to develop and implement new externally facing technology solutions and to improve the EPA's existing technology infrastructure. The team's core mission is to improve and simplify the digital experience that people and businesses have with their government by:

- Implementing standards and solutions to bring digital services in line with the best private sector services in the disciplines of design, software engineering, and product management to bear on the agency's most important services;
- Identifying, implementing and leveraging common technology patterns that will help us scale services effectively;
- Identifying and addressing gaps in the agency's capacity to design, develop, deploy and operate excellent public-facing services; and
- Providing accountability to ensure that the EPA achieves results.

In FY 2016, the EPA will continue to implement the E-Enterprise business strategy, a transformative 21st century strategy – jointly governed by states and the EPA - for modernizing government agencies' delivery of environmental protection. Under this strategy, the agency will streamline its business processes and systems to reduce reporting burden on states and regulated facilities, and improve the effectiveness and efficiency of regulatory programs for the EPA, states and tribes. IT/DM activities will continue to facilitate shared services and electronic transactions with the regulated community and external partners who routinely conduct environmental business with the EPA. To support the E-Enterprise strategy, IT applications and infrastructure will be enhanced to enable greater electronic exchange of information between the

EPA, states and tribes. Foundational infrastructure components to enable E-Enterprise principles will be developed, tested and deployed.

In FY 2016, the following IT/DM activities will continue:

- **Data Management and Collection:** In FY 2016, the agency will continue to identify and establish processes to capture electronic versions of records and eliminate, wherever possible, receiving or printing paper records. These efforts will increase accountability, improve accuracy and offer cost savings associated with information requests. Data Management and Collection efforts include support for the agency's Freedom of Information Act (FOIA) program. The program also supports the privacy of the agency's environmental data and personally identifiable information (PII). In FY 2016, the agency will continue to assess how to support expanded responsibilities associated with controlled unclassified information (CUI). The agency will continue to implement a strategy to deliver improved information services to agency staff. This includes governance (policy, procedures and standards), outreach and training, and a multi-project effort to improve records and eDiscovery. In addition, the EPA continues to operate a shared service docket processing center supporting the agency's rulemakings and administering the Paperwork Reduction Act, minimizing information collection burden on the public. (In FY 2016, the Data Management and Collection activities will be funded, under the EPM appropriation, at \$8.70 million in fixed costs and \$12.21 million in non-payroll funding.)
- **Geospatial:** In addition to meeting ongoing program needs, Geospatial information and analysis play a critical role in the agency's ability to respond rapidly and effectively in times of emergency. In FY 2016, the agency will continue to enhance the capabilities of the GeoPlatform, its shared technology enterprise for geospatial information and analysis. By implementing geospatial data, applications and services, the agency is able to integrate and interpret multiple data sets and information sources to support environmental decisions. Specifically during FY 2016 the agency will develop Geoplatfrom smart tools and data services to support the Cross-Agency Strategy for Communities. Geoplatfrom smart tool development will focus on integrating tools for grant project officers to define place of performance within IGMS, and building map displays, map-based search tools for displaying grant and project locations for both internal and public uses. Also in FY 2016, the EPA will use the Geoplatfrom to publish internal and public mapping tools, increasing by at least 30 percent the number of shareable maps, geodata services, and applications available for use. The EPA will continue to play a leadership role in both the Federal Geographic Data Committee and the National Geospatial Platform, working with partner agencies to share geospatial technology capabilities across government. (In FY 2016, the Geospatial activities will be funded, under the EPM appropriation, at \$2.87 million in fixed costs and \$2.04 million in non-payroll funding.)
- **Information Access and Analysis:** In FY 2016, the EPA will develop agency infrastructure and a suite of tools that will harness the power of data across the agency to drive better environmental results. The agency will identify, design, develop and deploy

data analysis products that address core EPA missions using the new platform. EPA will partner with other agencies, states, tribes and academic institutions to propose innovative ways to use, analyze and visualize data. The new platform will consist of investments in IT infrastructure, analytical software, coordination of activities and training. Some anticipated benefits of the analytical platform are: increased ability to recognize and define trends in environmental data that have the potential to enhance enforcement, increased public understanding of complex environmental conditions and better cross-media support through better data integration for analysis. The program will continue to provide analysis of environmental information to the public and EPA staff through My Environment, Envirofacts, OneEPA Web, EPA National Library Network and the EPA Intranet. Through support of My Environment and Envirofacts, the EPA will continue to offer online tools and applications that enable the public to understand and utilize environmental information about their community. These tools also support local emergency response. The program will continue to develop and enhance OneEPA Web, EPA National Library Network and the EPA Intranet to ensure secure access to information for environmental decision making. (In FY 2016, the Information Access and Analysis activities will be funded, under the EPM appropriation, at \$11.66 million in fixed costs and \$9.11 million in non-payroll funding.)

- **Information Technology and Infrastructure:** In FY 2016, the agency will continue to provide information technology and infrastructure. The EPA will provide support for software to assist EPA's inspectors in the field with consistent core inspection processes and mobile management of inspections and inspection data. This effort requires identifying and downloading regulatory requirements, linking various information sources such as TRI and NEI data where appropriate, and utilizing common data standards. The EPA will continue to maintain and provision: desktop computing equipment, network connectivity, e-mail and collaboration tools, application hosting, remote access, telephone services, and Web and network services, and other IT-related equipment. Moreover, the EPA will continue to support the Federal PortfolioStat portfolio and investment reviews in coordination with the agency's Capital Planning and Investment Control process. Also in FY 2016, the agency will continue efforts to consolidate EPA data centers and computer rooms and to optimize operations within EPA's remaining Core and non-Core data centers. The EPA is committed to using cloud computing technologies and has an enterprise-wide cloud hosting service in place. (In FY 2016, the Information Technology and Infrastructure activities will be funded, under the EPM appropriation, at \$36.38 million in fixed costs and \$13.42 million in non-payroll funding.)

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no specific performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$4,082.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$990.0 / +1.0 FTE) This realignment of resources is to support the Freedom of Information Act (FOIA) program from Exchange Network to Information Technology/Data Management (IT/DM). FOIA is part of the content management strategy supported in IT/DM which includes the improvement of records, eDiscovery, and privacy.
- (+\$4,942.0 / +2.0 FTE) This program change reflects an increase in data analytics, visualization, and predictive analysis advances that will help the agency explore and address environmental, business and public policy challenges. The infrastructure and suite of tools developed and implemented will harness the power of data corporately to drive better environmental results. This funding will also support pilot projects which will demonstrate the value of large-scale data analytics in EPA's programs.
- (+\$1,100.0) This program change reflects the agency's priority efforts to gain efficiencies and modernize our business processes through the use of advanced technologies. These resources will allow the IT/DM program to support the development and use of smart tools such as mobile technology by EPA inspectors in the field and cross-link information layers relevant to communities within the Geoplatform. These efforts also will provide communities with better access to environmental information and resources available to address their needs.
- (+\$1,200.0 / +8.0 FTE) This program change is for the launch of the EPA Digital Service Team that will work collaboratively across the EPA to develop and implement new externally facing technology solutions and to improve the EPA's existing technology infrastructure including agency efforts in data analytics, visualization, and predictive analysis. Resources will help the agency explore and address environmental, business and public policy challenges. This team is part of the government wide initiative to establish Digital Service teams for each federal agency to improve digital services and products.
- (-\$146.0 / -0.6 FTE) This program change reflects a net reduction due to a shift based on workforce strategy to align with Administration priorities and efficiencies gained from the consolidation of IT contracts through strategic sourcing and the use of streamlined enterprise-wide acquisition practices. The reduction is offset by an increase in funding for enhancements to IT applications and infrastructure to enable a more efficient exchange of information and streamlined business processes between the EPA, states, and tribes, in alignment with the E-Enterprise business strategy.

Statutory Authority:

Federal Advisory Committee Act (FACA), 42 U.S.C. 553 et seq. and Government Information Security Act (GISRA), 40 U.S.C. 1401 et seq. – Sections 3531, 3532, 3533, 3534, 3535 and 3536 and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. 9606 et seq. – Sections 101-128, 301-312 and 401-405 and Clean Air Act (CAA) Amendments, 42 U.S.C. 7401 et seq. – Sections 102, 103, 104 and 108 and Clean Water Act (CWA), 33 U.S.C. 1314 et seq. – Sections 101, 102, 103, 104, 105, 107, and 109 and Toxic Substances Control Act (TSCA), 15 U.S.C. 2611 et seq. – Sections 201, 301 and 401 and Federal Insecticide Fungicide and Rodenticide Act (FIFRA), 7 U.S.C. 36 et seq. – Sections 136a – 136y and Food Quality Protection Act (FQPA), 7 U.S.C. 136 et seq. – Sections 102, 210, 301 and 501 and Safe Drinking Water Act (SDWA) Amendments, 42 U.S.C. 300 et seq. – Sections 1400, 1401, 1411, 1421, 1431, 1441, 1454 and 1461 and Federal Food, Drug and Cosmetic Act (FFDCA), 21 U.S.C. 346 et seq. and Emergency Planning and Community Right-to-Know Act (EPCRA), 42 U.S.C. 11001 et seq. – Sections 322, 324, 325 and 328 and Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6962 et seq. – Sections 1001, 2001, 3001 and 3005 and Government Performance and Results Act (GPRA), 39 U.S.C. 2803 et seq. – Sections 1115, 1116, 1117, 1118 and 1119 and Government Management Reform Act (GMRA), 31 U.S.C. 501 et seq. – Sections 101, 201, 301, 401, 402, 403, 404 and 405 and Clinger-Cohen Act (CCA), 40 U.S.C. 1401 et seq. – Sections 5001, 5201, 5301, 5401, 5502, 5601 and 5701 and Paperwork Reduction Act (PRA), 44 U.S.C. 3501 et seq. – Sections 104, 105, 106, 107, 108, 109, 110, 111, 112 and 113 and Freedom of Information Act (FOIA), 5 U.S.C. 552 et seq. and Controlled Substances Act (CSA), 21 U.S.C. 802 et seq. – Sections 801, 811, 821, 841, 871, 955 and 961 and Electronic Freedom of Information Act (EFOIA), 5 U.S.C. 552 et seq. – Sections 552(a)(2), 552 (a)(3), 552 (a)(4) and 552(a)(6).

Program Area: Legal / Science / Regulatory / Economic Review

Administrative Law

Program Area: Legal / Science / Regulatory / Economic Review

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$4,321.0</i>	<i>\$5,120.0</i>	<i>\$5,039.0</i>	<i>(\$81.0)</i>
Total Budget Authority / Obligations	\$4,321.0	\$5,120.0	\$5,039.0	(\$81.0)
Total Workyears	26.6	26.8	26.8	0.0

Program Project Description:

This program supports the EPA's Administrative Law Judges (ALJ) and the Environmental Appeals Board (EAB). The ALJ preside in hearings and issue initial decisions in cases initiated by the EPA's enforcement program concerning environmental violations. The EAB issues final decisions in environmental adjudications (primarily enforcement and permit-related) that are on appeal to the EAB. The EAB also serves as the final approving body for proposed settlements of enforcement actions initiated by the agency's headquarters offices. The ALJ issues orders and decisions under the authority of the Administrative Procedure Act (APA) and the various environmental statutes that establish administrative enforcement authority. The EAB issues decisions under the authority delegated by the Administrator. The decisions reflect findings of fact and conclusions of law.

By adjudicating disputed matters, the ALJ and the EAB further the agency's mission to protect human health and the environment. The ALJ provides legal process and review for hearings and issues initial decisions in cases brought by the agency's enforcement program against those accused of violations under various environmental statutes. The right of affected persons to appeal those decisions is conferred by various statutes, regulations and constitutional due process rights. The EAB adjudicates administrative appeals in a thorough, fair and timely manner. In approximately ninety percent of cases decided by the EAB, no further appeal is taken to federal court, providing a final resolution to the dispute. The EAB and ALJ also offer an opportunity for alternative dispute resolution.

FY 2016 Activities and Performance Plan:

In FY 2016, the ALJ will convene formal hearings in the location of the alleged violator or violation, as required by statute. In FY 2016, ALJ will complete its evaluation of the electronic filing system to determine the extent of reductions in: mailing delays for all parties, mailing costs for alleged violators, and requests for paper documents from the ALJ. The ALJ will identify and

implement any process changes as necessary. Upon request and/or availability of funds, the ALJ also will offer public training events on administrative hearing procedures for the EPA's employees and the regulated community, as well as work with the EAB to support several domestic and international judicial environmental training efforts.

In FY 2016, the EAB will continue to streamline its procedures for adjudicating permit appeals under all statutes, and, in particular, will continue to expedite appeals in Clean Air Act New Source Review cases. In addition, the EAB will offer parties to its cases the opportunity to streamline and expedite resolution of their appeals through the EAB's Alternative Dispute Resolution (ADR) program. Since the inception of the ADR program, the EAB has successfully resolved without litigation more than eighty percent of the cases where the parties requested that the EAB conduct ADR. In early FY 2015, as an example, the EAB successfully resolved two contentious Clean Water Act permit appeals through use of ADR. In FY 2016, the EAB expects to receive several ADR negotiation requests. The EAB also will continue to implement its updated electronic filing system which allow users to file pleadings and retrieve electronic filings quickly and efficiently.

Performance Targets:

Work under this program supports multiple goals and strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$411.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$492.0) This program change reflects a reduction associated with the anticipated savings from the Office of Administrative Law Judge's electronic docketing system.

Statutory Authority:

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); Clean Water Act (CWA); Clean Air Act (CAA); Toxic Substance Control Act (TSCA); Resource Conservation and Recovery Act (RCRA); Safe Drinking Water Act (SDWA); Emergency Planning and Community Right-to-Know Act (EPCRA); Marine Protection, Research, and Sanctuaries Act (MPRSA); Mercury-Containing and Rechargeable Battery Management Act (MCRBMA); the Act to Prevent Pollution From Ships (APPS); Administrative Procedure Act (APA); as provided in Appropriations Act funding.

Alternative Dispute Resolution

Program Area: Legal / Science / Regulatory / Economic Review

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$1,262.4</i>	<i>\$1,397.0</i>	<i>\$1,452.0</i>	<i>\$55.0</i>
Hazardous Substance Superfund	\$888.0	\$750.0	\$774.0	\$24.0
Total Budget Authority / Obligations	\$2,150.4	\$2,147.0	\$2,226.0	\$79.0
Total Workyears	6.5	7.0	6.7	-0.3

Program Project Description:

The agency's General Counsel and Regional Counsel Offices provide environmental Alternative Dispute Resolution (ADR) services. The EPA utilizes ADR as a method for preventing or resolving conflicts prior to engaging in formal litigation and includes the provision of legal counsel, facilitation, mediation and consensus building. This program offers cost-effective processes to resolve disputes and improve agency decision making.

FY 2016 Activities and Performance Plan:

In FY 2016, the agency will continue to provide conflict prevention and ADR services to the EPA and external stakeholders on environmental matters. The national ADR program assists in developing effective ways to anticipate, prevent and resolve disputes and makes neutral third parties – such as facilitators and mediators – more readily available for those purposes. As in previous years, the agency expects to support at least 57 non-Superfund cases with neutral third party support in areas including: Tribal consultation, Environmental Justice, community engagement and collaborative dialogues.

In FY 2016, this program will continue to provide ADR and collaboration advice and conflict coaching to 115 new non-Superfund cases where headquarters and Regional Offices are working with stakeholders to improve environmental results. The agency expects to provide at least 24 training events, reaching at least 335 EPA employees to continue to build the agency's capacity to resolve environmental issues in the most efficient way and to achieve the agency's strategic objectives. Under the EPA's ADR policy and the OMB/CEQ Policy Memorandum on Environmental Collaboration and Conflict Resolution,²⁰³ the agency encourages the use of ADR techniques to prevent and resolve disputes with external parties in many contexts, including:

²⁰³ See http://www.epa.gov/adr/omb_ceq_eccr.pdf.

adjudications, rulemaking, policy development, administrative actions, civil judicial enforcement actions, permit issuance, protests of contract awards, administration of contracts and grants, stakeholder involvement, negotiations, and litigation. For example, as previously reported, the EPA estimated 25 percent better environmental outcomes and an average of more than \$50,000 in FTE savings per case in a small pilot study of Superfund and non-Superfund ADR cases. More recently, the EPA conducted a pilot survey of all litigation-related FY 2011 and FY 2012 Superfund and non-Superfund ADR cases and estimated that ADR required 50 percent fewer staff lead hours for active periods and one-third less elapsed time to reach a decision compared to decision making processes that likely would have been used otherwise (e.g., litigation, unassisted negotiation).

Performance Targets:

Work under this program supports all five of the agency's strategic goals. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$111.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$56.0 / -0.3 FTE) This program change reflects a reduction to staffing which will impact the program's ability to provide ADR services to the EPA and external stakeholders.

Statutory Authority:

Administrative Dispute Resolution Act (ADRA) of 1996, 5 United States Code (U.S.C.) Sections 571, 572, and 573, Negotiated Rulemaking Act of 1996, 5 U.S.C. Sections 563, 565, 566, and 568; the EPA's General Authorizing Statutes.

Civil Rights / Title VI Compliance

Program Area: Legal / Science / Regulatory / Economic Review

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$9,315.3	\$11,070.0	\$11,793.0	\$723.0
Total Budget Authority / Obligations	\$9,315.3	\$11,070.0	\$11,793.0	\$723.0
Total Workyears	59.9	64.1	64.0	-0.1

Program Project Description:

The Civil Rights/Title VI Compliance program provides policy direction and guidance on equal employment opportunity (EEO), civil rights, affirmative employment and reasonable accommodations for the agency's program offices, regional offices and laboratories. The EPA's Office of Civil Rights (OCR) is responsible for this program which encompasses the following functions:

- Intake, processing and adjudication of Title VI of the Civil Rights Act of 1964 (Title VI) complaints of discrimination from the public about the EPA's financial assistance recipients and civil rights compliance reviews;
- Intake, processing, and adjudication of Title VII of the Civil Rights Act of 1964 (Title VII) complaints of discrimination from agency employees and applicants for employment;
- Identifying and eliminating systemic and attitudinal barriers to equal employment by promoting advancement opportunities for women, minorities, and persons with disabilities.²⁰⁴
- Oversight, implementation and coordination of the agency's Reasonable Accommodations program and reasonable accommodations training for managers and staff.²⁰⁵

Program functions also include: accountability for implementation, program evaluation and compliance monitoring of Titles VI and VII; statutory requirements; and executive orders

²⁰⁴ Including primary responsibility for carrying out the requirements of EEOC Management Directive 715.

²⁰⁵ [The Rehabilitation Act of 1973](#), as amended, section 501, requires a federal government agency to provide reasonable accommodation for individuals with disabilities.

covering civil rights and affirmative employment. OCR also interprets policies and regulations and ensures compliance with Equal Employment Opportunity Commission (EEOC) directives and equal employment initiatives.

FY 2016 Activities and Performance Plan:

In FY 2016, the agency will implement the key recommendations noted below and those delineated in in the EPA Report, *Developing a Model Civil Rights Program at the EPA (Executive Committee Report)*.²⁰⁶ The purpose of the EPA's Executive Committee Report is to strengthen the external civil rights program, including Title VI, Title VII, Affirmative Employment Analysis and Accountability programs and support the multiple goals and strategic objectives identified.

Title VI (and Other External Civil Rights Laws)

In FY 2016, the agency will:

- Identify the EPA's financial assistance recipients that have frequent occurrences of Title VI complaints to help OCR ensure the effective utilization of compliance review resources, ensure recipients' compliance with federal civil rights laws and regulations, and provide the public greater assurance of recipients' nondiscriminatory implementation of environmental policies.
- Lead the Title VI Case Management Protocol process,²⁰⁷ which aids the EPA's programs in reaching consensus for committing adequate analytical resources and technical support for Title VI investigations. The program also will work with regions and programs across the agency to develop and implement a case management plan that will further inform resolution efforts, conduct investigations, and issue final agency decisions.
- Provide technical assistance and conduct outreach on key deliverables, such as Plan EJ 2020 and the Title VI Progress Report, which outlines OCR's progress on specific deliverables related to Title VI compliance activities.
- Administer Title VI training for the EPA's employees and Title VI staff development and training regarding project management, facilitation, Alternative Dispute Resolution (ADR), and investigations; implement the Title VI tracking system (External Case Tracking System (EXCATS)); and provide technical support and analysis as defined within the developed case management plans.
- Create a multi-year OCR-wide strategic plan with associated deliverables, milestones and timelines.

²⁰⁶ Please see <http://intranet.epa.gov/civilrights/pdfs/training/ecfr-developing-a-model-civil-rights-program.pdf> for additional information.

²⁰⁷ Please see: <http://www.epa.gov/epahome/ocr-statement.htm> for further information.

- Design a Civil Rights Compliance Toolkit to enhance federal financial assistance (FFA) recipients' understanding of their responsibilities under civil rights laws enforced by the EPA that prohibit discrimination. The toolkit will include a "Compendium of Best Practices," developed in collaboration with the Environmental Council of States.
- Design and implement a Case Management Action Plan/Framework to efficiently and expeditiously resolve pending older complaints, with the goal of reducing the number of open aging Title VI complaints by 50 percent by the end of FY 2016.
- Promote the increased use of ADR for Title VI complaints and recipients. In FY 2016, OCR will increase the use of mediation for Title VI cases to cover approximately 20 percent of the existing caseload. The agency also will design and implement training for the EPA's employees on Alternative Dispute Resolution (ADR), investigative techniques, and other relevant topics.
- Establish partnerships to design and present Title VI and EJ legal symposiums in the western, eastern and southern parts of the country in FY 2016.

Title VII

In FY 2016, the agency will:

- Build on the effort began in FY 2014, when the agency trained 44 collateral-duty EEO Counselors by recruiting a corps of 12 collateral-duty ADR professionals and provide them with 32 hours of mediation training designed to resolve employment complaints at the informal stage of the EEO process. With trained collateral-duty ADR mediators on staff, OCR will reduce adjudication costs and increase ADR utilization at the informal stage and promote the use of ADR to resolve Title VII complaints more frequently at the formal stage.
- Further reduce the number of days that complaints are under investigation to less than the regulatory 180 days by the end of FY 2016. This is achieved by contracting additional EEO investigators and an attorney-advisor, who together with existing EEO staff will accelerate completing EEO investigations and issuing final agency decisions.
- In coordination with the National EEO Officers, implement strategic plans to enhance consistency of process-related practices and improve efficiency and effectiveness of the EEO process by identifying EEO complaint and other forms used across the EPA; identify needed forms which do not exist; and identify any forms that require revision.
- Provide related training to the EEO community on the adopted procedures and host a National EEO Directors/Managers Strategic Planning and Training Conference.

Affirmative Employment Analysis and Accountability (AEAA)

In FY 2016, the agency will:

- Heighten collaboration among program offices to ensure coordination of related EEO and diversity and inclusion missions and to improve efficiency and effectiveness by offsetting and minimizing costs associated with implementation of related activities/actions.
- Ensure integration of civil rights into the EPA's strategic planning processes, organizational assessments, operating plans and other relevant reporting vehicles. As part of the goals and cross-cutting strategies listed in the *FY 2014-2018 EPA Strategic Plan*, program reassessment requires the requisition of awareness of and education for all employees, including managers and supervisors. In FY 2016, the program will develop an agencywide "Civil Rights Training Curriculum" for EPA staff that will address internal EEO and diversity and inclusion responsibilities and requirements.
- Continue to refine its engagement and collaborative efforts with the Deputy Civil Rights Officials (DCRO) to provide "corporate" EPA-wide alignment to ensure implementation of the EPA's Strategic Plan. OCR plans to host an in-person DCRO meeting that includes a training component.
- Implement program accountability through organizational priorities requiring regular performance and career development and coaching for staff as referenced in the Executive Management Committee's report. Implementation of career-specific training for the EPA's civil rights community will meet requirements pursuant to implementation of EEOC Management Directive 715 (MD 715) and complement the *FY 2014-2018 EPA Strategic Plan* as it relates to technical assistance and training.
- Develop and implement activities, trainings and events that assist the EPA's programs in meeting shared goals, missions and objectives. For example, OCR has assumed a leadership role in developing civil rights awareness training related to the reissuance of an EPA Order and is working in collaboration with the Office of Diversity, Advisory Committee Management and Outreach (ODACMO) on this endeavor.
- Provide effective support tools for managers and supervisors in carrying out their responsibilities under MD 715 and the Diversity and Inclusion Strategic Plan. In collaboration with ODACMO and the Office of Human Resources (OHR), the workgroup will identify vendors to implement the "toolkit of best practices" developed in FY 2015 for managers and supervisors to assist them in carrying out their responsibilities under the EPA's Diversity and Inclusion Strategic Plan and MD 715.

Performance Targets:

Work under this program contributes to progress under all five Strategic Goals. Currently there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$397.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$326.0 / -0.1 FTE) This net program change includes an increase to support the timely processing of cases, reduce the overall number of Title VI complaints, raise the public awareness level, support IT and telecommunications costs and improve the overall management of the complaints process. Due to efficiencies gained through business process changes, the program will save FTE.

Statutory Authority:

Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. §2000d to 2000d-7); 40 C.F.R. Part 7; Section 504 of the Rehabilitation Act of 1973; Section 13 of the Federal Water Pollution Control Act Amendments of 1972; Title IX of the Education Act amendments of 1972; Age Discrimination Act of 1975; Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. §2000e et seq.); Equal Pay Act of 1963 (29 U.S.C. §206(d)); Section 501 of the Rehabilitation Act of 1973; Americans with Disabilities Act of 1990 (42 U.S.C. §12101); ADA Amendments Act of 2008, Older Workers Benefit Protection Act (OWBPA) as amended; Age Discrimination in Employment Act (ADEA) of 1967, as amended (29 U.S.C. § 621-634); Equal Employment Opportunity Commission (EEOC) Management Directive 715).

Legal Advice: Environmental Program

Program Area: Legal / Science / Regulatory / Economic Review

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$42,816.4</i>	<i>\$42,027.0</i>	<i>\$52,411.0</i>	<i>\$10,384.0</i>
Hazardous Substance Superfund	\$506.3	\$503.0	\$467.0	(\$36.0)
Total Budget Authority / Obligations	\$43,322.7	\$42,530.0	\$52,878.0	\$10,348.0
Total Workyears	231.8	235.1	274.6	39.5

Program Project Description:

This program provides legal representational services, legal counseling and legal support for all of the agency's environmental activities.²⁰⁸ The legal support provided by this program is essential to the agency's core mission and goes to every aspect of the agency's Strategic Plan. This program provides legal counsel on issues arising under all of the EPA's environmental statutes including: the Clean Air Act (CAA), the Clean Water Act (CWA), the Safe Drinking Water Act (SDWA), the Toxic Substances Control Act (TSCA), the Pollution Prevention Act, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the Federal Food, Drug, and Cosmetic Act, the Emergency Planning and Community Right-to-Know Act (EPCRA), the Marine Protection, Research and Sanctuaries Act, the Resource Conservation and Recovery Act (RCRA), the Oil Pollution Act (OPA), The Resources and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast States Act (RESTORE Act), and the Administrative Procedures Act (APA). The FTE assigned to this program represent essential expertise in these critical fields that the agency relies on for all of its decisions and activities in furtherance of its mission: to protect human health and the environment.

This program provides counsel on every major action the agency takes. It plays a central role in all statutory and regulatory interpretation and all rule and guidance development under the EPA's environmental authorities. This program provides essential legal advice for every petition response, every judicial response and every emergency response. When the agency acts to protect the public from pollutants or health-threatening chemicals in the air we breathe, in the water we drink, or in the food we eat, this program provides counsel on the agency's authority to take that action; it then provides the advice and support necessary to finalize and implement that action. When that action is challenged in court, this program defends it.

²⁰⁸ Resources for legal services to support agency operations are included in the Legal Advice: Support program.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA has identified an urgent need to provide critical legal counsel in support of the EPA's Clean Power Plan. The Clean Power Plan is the President's highest priority for the EPA and is central to climate change mitigation efforts in the United States. The standards for existing sources propose to cut carbon pollution from the power sector by 30 percent by 2030 (compared to 2005 emission levels), equal to almost two-thirds of the nation's passenger vehicles or the annual emissions from over half of the homes in America. The existing source standards will produce public health and climate benefits worth an estimated \$55 billion to \$93 billion per year in 2030, far outweighing the estimated costs of \$7.3 billion to \$8.8 billion.²⁰⁹

In 2013, the EPA proposed carbon standards for new power plants under §111(b) of the Clean Air Act. In 2014, the EPA proposed standards for existing power plants under §111(d). The agency anticipates finalizing both rules in 2015. The first State Implementation Plans will be due in FY2016. Legal counsel will be in high demand to support the development of national process and technical guidance to inform development of approvable state plans, and in defending the EPA in litigation on the proposed carbon pollution standards, which has already begun in the form of multiple suits on the proposals. Regional Counsel will support Headquarters in analyzing implementation plan issues as well as support regional air program staff as they field questions from states and stakeholders. Regional Counsel also will play a critical role in the review and approval of state plans.

In FY 2016, the EPA will encounter a staggering workload to implement these rules and agency resources have been shifted to help meet the demand. Because of the breadth, complexity and precedent-setting nature of work, the agency expects a marked increase in demands for legal counsel in both headquarters and Regional Offices. In addition, each EPA action is expected to be challenged in court, which will require skilled and experienced attorneys specialized in the Clean Air Act to devote significant resources to defense of these actions.

The EPA also has identified a more general need for increased legal counseling resources throughout the agency, and is therefore proposing an additional investment throughout the legal counseling programs in headquarters and the Regional Offices in FY 2016. This program will see a small increase as a result of that strategic decision, which is driven by steadily increasing demand for legal services, coupled with the central importance of legal counsel to the agency's goals and priorities. Given the litigation risks associated with many of the agency's actions, legal review is critical.

Inadequate legal counseling resources are slowing down the agency's response to states seeking assistance developing or implementing environmental programs, industrial facilities seeking permits that are required to undertake new economic activity, and citizens seeking actions to protect local environmental quality, among other things. Accordingly, increased legal counseling resources will help provide certainty sooner to facilitate economic development in accordance with protecting public health, and will help states more quickly enact and implement state programs that protect public health by cleaning up the air, water, and land. Increased legal

²⁰⁹ The agency's complete proposal can be viewed by accessing the Federal Register website (Doc. Citation, 79 FR 34829).

counseling resources also will enable the agency to be more responsive to requests from citizens, industry, states and tribes about the appropriate way to comply with environmental regulations.

Over the last five years, the number of lawsuits the EPA counseling attorneys have handled during a year has more than doubled, increasing from 241 in 2009 to 622 in 2014. In addition to the increase in the number of judicial challenges to EPA action, these challenges have increased in complexity. The agency must adequately staff the work on these cases in order to protect against the legal risks they present to the EPA's efforts to protect human health and the environment. In a span of just a few months this year, the EPA prevailed in 12 separate Clean Air Act cases in front of the District of Columbia (DC) Circuit and the Supreme Court; these touched on a wide variety of key EPA actions such as the Mercury and Air Toxics Standards, the New Source Performance Standards for Power Plants, and Particulate Matter 2.5 limits. Investing the resources to improve legal defensibility of agency actions saves resources in the long run and increases certainty for regulated industry because actions are less likely to be reversed by the courts and have to be redone.

The following examples illustrate the activities of this program.

Goal²¹⁰	Specific EPA Office of General Counsel (OGC) Activities in FY 2014
Goal 1	In support of the President's Climate Strategy, the EPA's attorneys provided significant legal analysis and drafting in development of the first ever proposed standards for carbon emissions from new and existing power plants.
Goal 1	Successfully defended, in the Supreme Court, the EPA's authority to regulate the emissions of greenhouse gases from large stationary sources of air pollution under the Clean Air Act's Prevention of Significant Deterioration construction permitting program.
Goal 1	Successfully defended the EPA's Clean Air Act interstate transport before the Supreme Court, overturning prior adverse Court of Appeals decision and upholding the EPA's authority to issue federal plans to address transport considering costs in determining significant contributions.
Goal 1	Successfully defended the EPA's landmark Mercury and Air Toxics Standard (MATS), the first national rule to regulate emissions of mercury to the air from fossil fuel-fired electric utility units.
Goal 1	Provided critical legal counsel and drafting for the "Tier 3 rule," which will substantially lower emissions related to smog and soot from cars and light trucks, and lower sulfur levels in gasoline.
Goal 1 Goal 5	Established judicial precedents that will likely reduce the number of future lawsuits challenging the EPA's activities under Clean Air Act title V, and in the enforcement arena.

²¹⁰ The EPA's Strategic Plan for FY 2014-2018 identifies five strategic goals to guide the agency's work:

- Goal 1: Taking Action on Climate Change and Improving Air Quality
- Goal 2: Protecting America's Waters
- Goal 3: Cleaning Up Communities and Advancing Sustainable Development
- Goal 4: Ensuring the Safety of Chemicals and Preventing Pollution
- Goal 5: Enforcing Environmental Laws

Goal 1	Assisted the Administrator in responding to 10 petitions to object to state-issued Title V permits under the Clean Air Act.
Goal 1	Provided critical legal support for the EPA's decision to approve the Wind River Indian Tribes' application to administer Clean Air Act programs, ending a nearly five-year process due to a dispute raised by Wyoming over the Tribes' reservation boundary.
Goal 2	Achieved a significant victory in the DC Circuit (<i>Mingo Logan Co. v. EPA</i>); the Court upheld the EPA's broad statutory authority to protect more than six miles of valuable stream against proposed destruction by one of the largest mountaintop removal operations ever contemplated in Appalachia.
Goal 2	Achieved a significant and precedential victory in the DC Circuit case, <i>National Mining Association v. McCarthy</i> , in which the Court upheld the EPA's mountaintop mining guidance and established a significant legal precedent that federal agencies need not undertake rulemaking under the APA when issuing recommendations and guidance.
Goal 2	Played a significant role in issuance of a regulation under section 316(b) of the Clean Water Act establishing standards for the power industry for cooling water intake structures.
Goal 2	Played a central role in issuance of a proposed rule defining Waters of the United States in response to decisions of the United States Supreme Court and widely voiced stakeholder requests for clarification.
Goal 1 Goal 2 Goal 3	Developed the legal underpinnings that resulted in the January 3, 2014 issuance of the RCRA Carbon Capture and Sequestration final rule. This rule is part of the EPA's effort to provide clarity to encourage the deployment of carbon capture and sequestration (CCS) technologies in a safe and environmentally protective manner. CCS is one of the key technologies projected to mitigate climate related impacts and is expected to have a major economic and technological impact on many industries across the country.
Goal 2 Goal 3	Provided critical legal support for ongoing work related to the Deepwater Horizon Natural Resource Damages Assessment and Restoration Claim, including implementation of the Trust Fund.
Goal 3	Provided legal counsel and drafting of final Cathode Ray Tube (CRT) rule under RCRA. The rule will allow the agency to obtain additional information to better track exports of CRTs for reuse and recycling in order to ensure safe management of these materials.
Goal 3	Provided key legal advice for the Brownfields grant program, which made 264 grants totaling \$67 million to assess and clean up contaminated property.
Goal 3	Provided expert legal advice for the final rule defining the "all appropriate inquiry" federal standard for evaluating a property's environmental conditions and assessing potential liability for persons handling contaminated property. The rule facilitates the redevelopment of contaminated property.

Goal 3	Led the EPA's participation in National Security Council and Interagency Policy Council meetings to ensure that the United States' decision to accept the majority of Syria's chemical weapons and wastes for importation and disposal would be implemented in full compliance with applicable domestic and international environmental laws and with sensitivity to the environmental justice community in Port Arthur, Texas, where the importation and disposal occurred.
Goal 4	Successfully concluded the first FIFRA cancellation hearing in more than twenty years by negotiating a settlement with a rodenticide manufacturer that resulted in the removal from the market of the last consumer-use rodent control pesticides that failed to adopt important safety measures identified by the agency's Pesticide programs in 2008.
Goal 4	Obtained dismissal of NGO litigation challenging the long-standing deferral of TSCA regulation -- in favor of regulation under the more flexible Ocean Dumping Act -- of the Navy's SINKEX program, under which obsolete ships containing PCBs are sunk as part of target practice.
All Goals	Instrumental in the Solicitor General's decision to file a petition for certiorari before the Supreme Court to argue that the DC Circuit's <i>Paralyzed Veteran's</i> doctrine (requiring agencies to go through notice and comment when issuing a revision to an interpretive rule) is inconsistent with the Administrative Procedure Act. And has provided strong legal support in drafting of the Supreme Court Briefs.
All Goals	Provided legal advice to the EPA and the Science Advisory Board on engagement with stakeholders and compliance with the Federal Advisory Committee Act and the Environmental Research, Development and Demonstration Authorization Act.
All Goals	Provided legal advice on a wide variety of issues associated with the EPA's use of science in administrative decision-making, including peer reviews, risk assessments, information disclosure and scientific integrity.

Performance Targets:

Work under this program supports all five of the agency's strategic goals. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$3,380.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$3,565.0 / +20.0 FTE) This program change reflects an increase of 10.0 FTE at Headquarters and 10.0 FTE in the Regional Offices to support the Clean Power Plan. Strong legal counsel ensures a clearer, more implementable rule which is more likely to survive challenge and provide consistency for regulated entities.

- (+\$3,439.0 / +19.5 FTE) This program change reflects an increase of 2.7 FTE at Headquarters and 16.8 FTE in the Regional Offices to support the increased legal counseling demand throughout the agency. Investing the resources to improve legal defensibility of agency actions saves resources in the long run because actions that are reversed by the courts have to be redone.

Statutory Authority:

Toxic Substances Control Act, 15 United States Code (U.S.C.) 2601 et seq.; Pollution Prevention Act, 42 U.S.C. 13101 et seq.; Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. 136 et seq.; Federal Food, Drug, and Cosmetic Act, 21 U.S.C. 346a; Emergency Planning and Community Right-to-Know Act, 42 U.S.C. 11023; Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq.; Safe Drinking Water Act, 42 U.S.C. 300f et seq.; Marine Protection, Research and Sanctuaries Act of 1972, 33 U.S.C. 1401 et seq.; Solid Waste Disposal Act as Amended by the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §6901 et seq., Sections 2002, 3001 – 3023, 4001 – 4010, 6001 – 6004, 7003 – 7006, 8001 – 8007, and 9001 – 9010; Clean Water Act (CWA), 33 U.S.C. § 1321, Section 311; Oil Pollution Act (OPA), 33 U.S.C. § 2701 – 2762, Sections 1001 – 7002; Emergency Planning and Community Right-to-Know Act (EPCRA), 42 U.S.C. § 11001 et seq., Sections 302-304, 311 – 313, and 325, 326; Mercury Export Ban Act (MEBA), Public Law No. 110-414; EPA’s General Authorizing Statutes.

Legal Advice: Support Program

Program Area: Legal / Science / Regulatory / Economic Review

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$14,231.3</i>	<i>\$16,907.0</i>	<i>\$18,662.0</i>	<i>\$1,755.0</i>
Total Budget Authority / Obligations	\$14,231.3	\$16,907.0	\$18,662.0	\$1,755.0
Total Workyears	74.2	88.2	89.8	1.6

Program Project Description:

This program provides legal representational services, legal counseling and legal support for all activities necessary for the EPA's operations.²¹¹ It provides legal counsel on issues including, but not limited to: appropriations, claims, contracts, ethics, employment law, grants, information law, intellectual property law, real property, and all aspects of civil rights law.

For example, if an EPA program office needs to know how to respond to a Freedom of Information Act (FOIA) request, whether it may spend money on a certain activity, how to create a trademark for a voluntary program (e.g., Energy Star), or what to do when a plaintiff files a tort claim against the agency, this program is the source of answers, options, and advice. This program supports the EPA in maintaining high ethical standards and in complying with all laws and policies that govern the agency's operations.

FY 2016 Activities and Performance Plan:

In FY 2016, increased legal support will be needed in a number of specific areas covered by this program. The EPA expects continued demands to address and manage information requests, growth in demands for legal support for work under the Civil Rights Act, and an ongoing need for a high level of involvement in questions related to finance, appropriations, ethics and employment. Funding within this program supports the staff necessary to address these needs. The EPA also is continuing an ambitious transformation to become a High Performing Organization, efficiently accomplishing its mission with reduced resources. This type of organizational transformation will continue to increase demand for legal counsel on financial, operational, management, and personnel issues.

In FY 2016, the EPA has identified a general need for increased legal counseling resources throughout the agency, and is therefore proposing an investment throughout the legal counseling

²¹¹ Resources for legal services to support Environmental programs are included in the Legal Advice: Environmental program.

programs in headquarters and the Regional Offices. As a result of that strategic decision, coupled with the central importance of legal counsel to the agency’s goals and priorities, this program will be positioned to work to improve the quality and defensibility of the EPA’s actions. Investing the resources to improve legal defensibility of agency actions saves resources in the long run because actions that are reversed by the courts have to be redone.

Over the past five years, the number of lawsuits that the EPA’s counselling attorneys have handled during a year has more than doubled, increasing from 241 in 2009 to 622 in 2014. In addition to the increase in the number of judicial challenges to the EPA’s actions, these challenges have increased in complexity. The agency must adequately staff the work on these cases in order to protect against the legal risks they present to the EPA’s efforts to protect human health and the environment. Of particular significance for the workload within this program, litigation under the Freedom of Information Act (FOIA) has increased steadily in both number and complexity. These demands have stretched legal counselling to a breaking point. An investment of FTE spread between the Regional Offices and OGC would allow counselling attorneys to meet these litigation needs, while also providing other counseling services that have suffered under current resource constraints. Most importantly, this program will be better positioned to work to improve the quality and defensibility of the EPA’s actions.

The following examples illustrate this program’s important role in implementing the agency’s core priorities and mission.

Goal ²¹²	Specific EPA OGC Activities in FY 2014
Goal 3	Drafted a formal request to DOJ for an Office of Legal Counsel opinion on the authority of the EPA to request and obtain payments from federal agencies for the agency’s oversight of federal facilities performing response work pursuant to a federal facilities agreement under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) section 120.
Goal 3	Provided legal counsel on the establishment of the hazardous waste electronic manifest (e-Manifest) system.
All Goals	Assisted the EPA and Department of Justice in resolving the suspension and debarment of BP, and related litigation, through legal review of an Administrative Agreement settling the matter.
All Goals	Developed training materials for a government-wide audience that explain the requirements of the Federal Technology Transfer Act and the application of copyright law in the federal government.
All Goals	Worked closely with the agency’s Records Program to implement improved record management practices, including agencywide training to address challenges posed by evolving technology and an increasingly mobile work force.

²¹² The EPA’s Strategic Plan for FY 2014-2018 identifies five strategic goals to guide the agency’s work:

- Goal 1: Taking Action on Climate Change and Improving Air Quality
- Goal 2: Protecting America’s Waters
- Goal 3: Cleaning Up Communities and Advancing Sustainable Development
- Goal 4: Ensuring the Safety of Chemicals and Preventing Pollution
- Goal 5: Enforcing Environmental Laws

All Goals	Provided training sessions throughout the agency on FOIA, eDiscovery, personal privacy, and confidential business information.
All Goals	Provided legal counsel regarding numerous Confidential Business Information (CBI) issues concerning emission data, including those related to the agency's Greenhouse Gas Reporting rule for Petroleum and Natural Gas Systems.
All Goals	Obtained favorable ruling in FOIA case concerning a request for over 12,000 documents from the secondary email account of the former administrator.
All Goals	Counseled on the development of critical Governance documents, which resulted in a successful, agencywide launch of SharePoint, an integrated content and document management system,
All Goals	Counseled the agency through its Audit Dispute Resolution process to address recommendations made in an Office of Inspector General Report regarding a Time and Material Contract.
All Goals	Provided legal counsel and support under Title VI of the Civil Rights Act, including complaint processing; drafting a proposed rule to improve the agency's Title VI regulations; extensive support for stakeholder engagement; and reworking the EPA's Limited English Proficiency training.
All Goals	Served as a key member in a management team representing the EPA in settlement negotiations on a multi-million dollar union grievance under the Fair Labor Standards Act. Provided legal advice and technical support on the grievance and settlement negotiations, which ultimately resulted in a settlement that was in the best interest of the agency.

Performance Targets:

Work under this program supports all five of the agency's strategic goals. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,016.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$739.0 / +1.6 FTE) This program change reflects an increase of 1.6 FTE and additional resources for contract support to address the agency's steadily increasing demand for legal services. Investing resources to improve legal defensibility of agency actions saves resources in the long-term because actions that are reversed by the courts have to be redone.

Statutory Authority:

Title VI of the Civil Rights Act of 1964, 42 United States Code (U.S.C.) §§ 2000d – 2000d-7; Section 504 of the Rehabilitation Act of 1973, 2 U.S.C. § 794; Section 13 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. §1251; Title IX of the Education Amendments of 1972, 20 U.S.C. §§ 1681 – 1688; The Age Discrimination Act of 1975, 42 U.S.C. §§ 6101- 6107; Section 311 of the Clean Water Act, 33 U.S.C. 1251 et seq.; Oil Pollution Act of 1990, 33 U.S.C. 2701 et seq.; the EPA's General Authorizing Statutes.

Regional Science and Technology

Program Area: Legal / Science / Regulatory / Economic Review

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$2,338.2	\$2,176.0	\$2,941.0	\$765.0
Total Budget Authority / Obligations	\$2,338.2	\$2,176.0	\$2,941.0	\$765.0
Total Workyears	2.2	2.0	2.0	0.0

Program Project Description:

The Regional Science and Technology (RS&T) program provides assistance to all of the agency's national programs, including but not limited to programs implementing the Resource Conservation and Recovery Act; Toxic Substances Control Act; Clean Water Act; Safe Drinking Water Act; Clean Air Act; and Comprehensive Environmental Response, Compensation and Liability Act. The RS&T program supports the agency's strategic goals by performing laboratory analysis, field monitoring, and sampling investigations in order to provide credible scientific data on environmental pollutants and conditions to agency decision makers. The RS&T program also assists state environmental agencies by providing specialized technical assistance and helping build Tribal capacity for environmental monitoring and assessment.

The RS&T program provides essential expertise and scientific data for a wide array of environmental media, including ambient air; surface, drinking and ground water; soil and sediment; solid and hazardous waste; and biological tissue. The program supports the agency's national programs and continuously seeks to realize efficiencies in analysis, field investigations, and data collection. This work differs from the agency's research operations by focusing on the immediate scientific information needed to make short-term decisions and actions, rather than short- or long-term research to guide the agency's long-range regulatory process.

The RS&T program provides expertise in areas such as environmental biology, microbiology, chemistry, field sampling, enforcement and criminal investigations, and quality assurance. The program's applied science expertise is often used to develop, modify, and improve analytical methods for specialized science, such as emerging chemicals of concern, and to provide scientific consultation to agency, state, and Tribal partners. The program supports special or non-routine analytical requests that the EPA cannot readily obtain from other sources and the agency needs to meet the required timeframe.

Funding for scientific equipment is essential to the program's state-of-the-art operations. New and improved technology strengthens science-based decision-making for regulatory efforts, environmental assessment of contaminants, and development of critical and timely environmental data in response to accidents and natural or man-made disasters. As technology improves, equipment improves advancing sensitivity at lower detection levels of contaminants. Newer, advanced instrumentation has improved environmental data collection and laboratory analytical capacity and capability.

FY 2016 Activities and Performance Plan:

In FY 2016, resources will continue to support regional implementation of the agency's statutory mandates through laboratory and field operations for environmental sampling and monitoring. Resources will also provide direct laboratory and monitoring support at the local level and improve timely decision-making in regional program management and implementation. Taking this approach enables the agency to address environmental issues specific to particular geographic areas (e.g., energy extraction, mining, wood treating operations, oil refining, specialty manufacturing), natural disasters (e.g. Hurricane Sandy), or homeland security threats.

Regional laboratories provide increased levels of service and meet national programs' analytical needs by coordinating efforts and optimizing network expertise and assistance. In FY 2016, regional laboratories will continue to coordinate within the Regional Laboratory Network (RLN) to provide needed scientific services. The regional laboratories have the capability to analyze a full suite of contaminants using an array of established methods, including regulatory or guidance methods such as the Resource Conservation Recovery Act and Clean Water and Safe Drinking Water Act methods. Laboratories also utilize new methods based on immediate needs or circumstances. For example, some regional laboratories have analytical expertise unique to particular Regional Offices and when requested, can quickly modify established methods to address specific/unique needs.

In FY 2016, the RS&T program also will support the risk identification and assessment associated with pesticides, organic chemicals, and other high-risk chemicals, as well as supporting the agency's science priorities. The agency's mission to protect human health and the environment often requires the availability of scientific data at lower detection levels, which requires specialized equipment.²¹³ Almost all scientific instrumentation is computer-controlled or interfaced. As computer technology improves, instrument efficiencies and sensitivity also improve – these advances in technology leading to lower detection levels of contaminants are essential. For example, some compounds, health-based risk levels are decreasing (e.g., hexavalent chromium). When measuring for these compounds, the instrument detection levels need to be lower requiring laboratories to modify an existing method, modify existing equipment, or purchase newer instrumentation.

²¹³Some examples of necessary equipment include: sample concentrators; autosamplers; gas and liquid chromatography/mass spectrometry systems; direct mercury analyzers; inductively coupled plasma (metals) analyzers; air toxics sampling equipment; high-resolution equipment; hand-held equipment for screening of high-hazard samples; and various soil and water analyzers.

In FY 2016, resources for the regional laboratories will:

- Enhance agencywide enforcement efforts and enable regional laboratories to perform forensic analysis on a wide variety of samples collected as part of criminal investigations and enforcement actions. These analyses require cutting-edge, high-quality, and defensible laboratory data.
- Support agencywide science priorities by facilitating regional laboratories' abilities to explore the impacts of emerging contaminants (e.g. pharmaceuticals, personal care products, endocrine disrupting chemicals, flame retardants) and support method development and applied science.

Performance Targets:

Work under this program contributes to progress under all five Strategic Goals. Currently there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$10.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$755.0) This program change increases resources for new equipment purchases and technological upgrades of such items as sample concentrators; mass spectrometry systems; air toxics sampling equipment; high resolution equipment; handheld equipment for screening of high hazard samples; and various soil and water analyzers.

Statutory Authorities:

Resource Conservation and Recovery Act; Toxic Substances Control Act; Clean Water Act; Safe Drinking Water Act; Clean Air Act; Comprehensive Environmental Response, Compensation and Liability Act, Pollution Prevention Act; Federal Insecticide, Fungicide and Rodenticide Act.

Integrated Environmental Strategies

Program Area: Legal / Science / Regulatory / Economic Review
Goal: Cleaning Up Communities and Advancing Sustainable Development
Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$14,012.7</i>	<i>\$12,724.0</i>	<i>\$21,937.0</i>	<i>\$9,213.0</i>
Total Budget Authority / Obligations	\$14,012.7	\$12,724.0	\$21,937.0	\$9,213.0
Total Workyears	59.4	53.3	55.8	2.5

Program Project Description:

The Integrated Environmental Strategies (IES) program provides tools and resources to help communities become more environmentally and economically resilient, develops strategies to help businesses advance environmental and economic goals, and promotes effective management policies and practices within the agency. IES supports the agency’s work in the Smart Growth program, as well as activities related to strategic environmental management, sustainable design and the integration and streamlining of cross-agency priorities. This work is in high demand by universities, citizen groups, the business community, and all levels of government because of the promise it holds to produce lasting economic, environmental, and public health benefits.

The program supports the agency’s effort to align resources to better support the efforts of environmentally overburdened, underserved, and economically distressed communities to proactively address endemic and emerging environmental challenges in ways that build a community’s long-term sustainability. The Smart Growth program helps community and government leaders protect the environment and public health, build the economy, and improve the quality of life by making smart growth and sustainable design practices commonplace.²¹⁴ Sustainable design refers to designing communities and buildings to minimize impacts to the environment.

Through the Partnership for Sustainable Communities,²¹⁵ the Smart Growth program works with the U.S. Department of Transportation and U.S. Department of Housing and Urban Development to align housing, transportation, and infrastructure investments and policies and build capacity in communities to grow in a more sustainable and resilient manner. Additionally, the program works directly with the Federal Emergency Management Agency and the U.S. Department of Agriculture to help communities identify more sustainable approaches to reducing vulnerability to disasters and fostering economic development. The program also conducts research and develops tools that help communities see the connection between development, the environment, the economy, and public health.

²¹⁴ For more information: <http://www.epa.gov/smartgrowth/>.

²¹⁵ For more information: <http://www.sustainablecommunities.gov/>.

The Strategic Environmental Management program ensures strategic and visible progress on transformational cross-agency priorities. In FY 2016, specific priorities include: guiding the EPA's Cross-Agency Strategy management objectives, improving the EPA's operations through business process improvements and program evaluation tools, and examining how the EPA can better integrate across programs to achieve environmental results. This program supports implementation of the *FY 2014-2018 EPA Strategic Plan* and is designed to fundamentally change how the EPA works, both internally and externally, to achieve the mission outcomes articulated under the Plan. This program also will strengthen senior leadership engagement in developing and implementing Annual Action Plans designed to make strategic progress on the Cross-Agency Strategies. Additionally, improved program efficiencies resulting from business process improvements and program evaluation tools will enable the agency to more strategically and effectively utilize resources.

FY 2016 Activities and Performance Plan:

Program activities planned for promoting smart growth and sustainable design include:

Providing technical assistance. Technical assistance and training is the cornerstone of the EPA's smart growth approach to address development-related environmental challenges in communities. The objective is to help state and local governments protect the environment while helping them grow their economies, create jobs, and become more resilient. The Smart Growth program will deliver direct assistance to approximately 93 communities and train experts to assist many more.

The EPA will expand efforts to deliver targeted assistance to communities as they seek to integrate sustainability strategies for recovery from natural disasters. This work also will support the President's Climate Action Plan by collaborating with FEMA and the National Oceanic and Atmospheric Administration on climate change adaptation planning in communities. This work will support long-term recovery efforts underway in the wake of previous natural disasters and create capacity to help newly impacted areas. Additionally, the EPA Regional Offices and headquarters programs will work together to implement the FY 2015 Communities Cross-Agency Strategy Action Plan aimed at better supporting communities by delivering information and direct technical assistance in ways that maximize limited agency resources.

Conducting research and developing tools. The program will continue agency research on emerging trends, innovative practices, and tools that help state and local governments quantify the environmental significance of facility location and site design decisions. The EPA will develop tools to help interested communities incorporate innovative approaches to infrastructure and land development policies that deliver multiple community and quality of life benefits while also managing stormwater, reducing combined sewer overflows, and improving local air quality.

- In FY 2016, the Smart Growth program will work across the EPA's programs to provide guidance and policy suggestions for how communities can retool infrastructure investment, land use and community design practices, and the development approval process to support implementation of green infrastructure.

- The EPA will deliver tools that support public and private investments in locations that generate less transportation-related greenhouse gas emissions. With the Government Services Administration, the EPA will pilot a tool that helps federal and state agencies evaluate building lease opportunities for public facilities based on the level of transit access and proximity to walkable destinations. The EPA also will refine a policy evaluation tool specifically designed to catalyze redevelopment in distressed economies.
- The EPA will expand the reach of smart growth and sustainable design tools by training staff from federal, state, and regional planning organizations to deliver tools previously developed by the EPA. In FY 2016, the agency plans to develop four more tools and offer two in-person training sessions. By packaging the tools for delivery by other organizations and training their staff, the EPA can effectively multiply the reach of its tools and ensure that hundreds of additional state, Tribal, regional, and local governments receive assistance.

Integration of environmental efforts in communities. In FY 2016, as part of the EPA's Communities Cross-Agency Strategy, the agency will coordinate and streamline cross-agency work in communities, enabling the agency to more effectively leverage its ongoing program work and smartly deploy resources. Within this program, coordination of community work will be achieved, in part, by supporting a cadre of agency Community Resource Coordinators who will support and assist overburdened communities and vulnerable populations -- including Tribal populations, rural communities, and children -- to better prepare for implementing community-focused environmental programs. Community Resource Coordinators in each EPA Regional Office would work as a cross-agency, multi-media team to facilitate access to the full range of agency resources and programs to help address the unique needs of each community. Coordination of community work also will be achieved by leveraging NGO and academic efforts to support non-EPA "Circuit Riders" to work with the Administration's existing Place-Based Climate Action Champions to provide on-the-ground technical assistance to multiple communities, specifically focused on improving community adaptation and resiliency in response to climate change and extreme weather events. To support this community coordination work, the agency will deliver second generation, community focused tools that are interactive, user-friendly, and build upon and hone existing platforms to both (1) better connect communities to the multitude of agency and other federal resources (primarily websites) available to address their needs and (2) align geospatially the agency's available information and data within the GeoPlatform.²¹⁶

Engaging federal partners. The EPA will continue to partner with other federal agencies to align investments, grant criteria, and planning requirements to better support community smart growth and sustainable design efforts. The EPA will continue to support the HUD-DOT-EPA Partnership for Sustainable Communities, the cornerstone of our work in engaging federal partners. Other priority partnerships include the White House's Strong Cities, Strong

²¹⁶GeoPlatform is a one-stop shop designed to deliver nationally-consistent data relevant to communities to help community specialists easily identify the types of federal investments and other relevant data that would be helpful in understanding and prioritizing community needs in specific geographic locations.

Communities initiative; implementation of a joint MOA with FEMA; and expanded collaboration with USDA and the Appalachian Regional Commission.

The EPA and the Partnership for Sustainable Communities will help support a broader administration commitment to help communities improve their ability to adapt to climate change (particularly through disaster recovery efforts) and increase use of green infrastructure techniques to protect waterways and enhance their quality of life. The Partnership will continue to provide direct technical assistance to support local governments as they face challenges with implementation. In FY 2016, the EPA also will work with other federal agencies whose decisions, rules, investments and policies influence where and how development occurs.

Strategic Environmental Management. In FY 2016, the program will provide the agency with management processes, technical expertise, and tools to improve results and program efficiencies and effectiveness. The program will help the agency build, coordinate, and complement approaches to implement priority activities with existing core efforts. Areas of emphasis include integration of sustainability principles into agency activities and expanding the use of Lean government approaches.

The EPA will target sustainability principles in four areas of knowledge sharing: green infrastructure, sustainable materials management, sustainable purchasing, and energy efficiency. In FY 2016, the agency will explore these areas to see how additional integration, goal-setting, or indicators could result in additional environmental benefits. The EPA will engage internally and with its external partners and stakeholders to inform and identify opportunities for progress on these priority areas.

In FY 2016, the EPA is expanding its Lean efforts as a part of the High-Performing Organization Cross-Agency Strategy. The programs will continue to advance business process improvements through mentoring and coaching the EPA's staff, provide access to process improvement experts, identify projects of high strategic value, summarize results of process improvement events (e.g., time and cost savings), and transfer successful approaches across programs and organizations. Through its Lean efforts, the EPA seeks to eliminate non-value added activities to focus more directly on all tasks (e.g. procurement, enforcement and permitting) that support its mission of protecting public health and the environment. The agency currently has approximately 40 Lean projects underway.

The program guides efforts related to the EPA Cross-Agency Strategies, as articulated in the *FY 2014-2018 EPA Strategic Plan*. In FY 2016, the EPA will advance the strategies (i.e., Communities, Sustainability, Partnerships and the EPA as a High-Performing Organization) through developing and implementing Annual Action Plans for each. The program will rely on standing and/or temporary internal leadership teams to lead these efforts and support timely and strategic decisions. The program will convene regularly scheduled meetings of agency leadership (e.g., the Executive Management Council) to drive progress and monitor results.

The program will champion reliance on evidence and analytic tools to foster a culture of learning and program improvement. In FY 2016, the program will deploy and rely on the use of analytic tools such as logic modeling, strategy mapping, performance measurement and program

evaluation to improve the effectiveness and efficiency of agency programs and operations. Evidence and evaluation help foster a high-performing organization.

Performance Targets:

Work under this program contributes to progress under all five Strategic Goals. Currently there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$754.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$2,959.0) This program change increases resources to support core community work, an agency priority outlined in the Communities Cross-Agency Strategy. This includes improving strategic focus and integration of community level efforts across programs on communities/tribes, enhancing agency capacity for local partnerships, engaging with local organizations, and supporting an integrated approach to implementing sustainability principles at the local level across programs.
- (+\$2,090.0) This program change reflects an increase for non-EPA “Circuit Riders” who will work with the Administration’s existing Place-Based Climate Action Champions to provide on-the-ground technical assistance to multiple communities. This funding also provides resources to support multi-media climate mitigation, which is an agency priority.
- (+\$525.0) This program change will fund the work necessary to: 1) provide communities with better access to the EPA’s information and resources by improving and leveraging existing websites and 2) help align the multiple layers of information within the GeoPlatform particularly relevant to communities.
- (+\$2,885.0 / +2.5 FTE) This program change increases resources to focus on agency priorities including expanding Lean government business process improvements. These resources will allow the program to build on initial deployment momentum and enhance program impacts by: applying Lean tools to additional EPA processes; strengthening internal program management structure; building facilitation and training capacity, and achieving initial results.

Statutory Authority:

Clean Water Act (CWA), Section 104(b) (3); Clean Air Act (CAA), Section 104(b)(3).

Regulatory/Economic-Management and Analysis

Program Area: Legal / Science / Regulatory / Economic Review

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$14,408.3	\$14,883.0	\$18,479.0	\$3,596.0
Total Budget Authority / Obligations	\$14,408.3	\$14,883.0	\$18,479.0	\$3,596.0
Total Workyears	82.3	81.3	81.3	0.0

Program Project Description:

The Regulatory/Economic, Management and Analysis program uses its resources to ensure that agency regulations comply with statutory and Executive Order (EO) requirements, such as the Congressional Review Act, the Regulatory Flexibility Act (as amended by the Small Business Regulatory Enforcement Fairness Act), and EOs 12866 and 13563 regarding regulatory review. The program is responsible for the routine review of agency regulations and coordinates the agency's review of its existing regulations to identify ways to modify or address regulations that are overly burdensome or need strengthening. As part of these responsibilities, the program uses its resources to assess and consider impacts of the EPA's regulations on businesses (particularly small businesses), government entities, and the economy more broadly.

Transparency, outreach, improving underlying business processes, incorporating electronic reporting and consultation also are priorities. One of the goals is to make information on the EPA's upcoming regulatory activities available to the public, states, other agencies and Congress as soon as possible through a variety of mechanisms, including the EPA website, the *Federal Register*, and the Regulatory Agenda.

The program ensures consistent and appropriate economic analysis of regulatory policy options by reviewing and enhancing economic analyses (including benefit-cost and employment impact analyses) prepared by regulatory programs. The program also develops, identifies and analyzes regulatory and non-regulatory approaches for consideration in rulemaking; considers interactions between regulatory actions in various program offices from a multi-media perspective; and addresses policy priorities.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue its efforts to assess, review and improve its regulations while considering costs to businesses, government entities, and the economy and maximizing the net benefits to protect human health and the environment. Key program activities planned include:

- Managing the agency's internal *Action Development Process*, *Economic Guidelines*, and related requirements (e.g., OMB Circular A-4 on Regulatory Analysis). The EPA will be reviewing and revising the economic guidelines so they remain current with advancements and reflect best practices in the profession.²¹⁷
- Actively participating in the development of agency regulatory actions to ensure regulations address statutory and EO directives (e.g., conducting benefit-cost analysis for every economically significant regulation) and policy priorities and providing technical assistance when needed to help meet agency goals, such as finding less burdensome approaches to achieve environmental protection.
- Continuing efforts to develop and evaluate economy-wide modeling for the assessment of economic effects of environmental regulatory options. Little research exists on how to accurately assess the macroeconomic impacts of environmental regulations within a specific industry sector. Current regulatory analysis focuses on a particular regulated sector but is limited in its ability to explore how the benefits and costs of a regulation affect the overall economy. The EPA's Science Advisory Board (SAB) will be providing expert advice to the agency on this type of modeling. Once the SAB's review is completed, the program will develop approaches and data to respond to the SAB's recommendations.
- Serving as the agency's liaison with the Office of the Federal Register by reviewing, editing and submitting documents for publication so that the public, states, other agencies, and Congress can be informed about the EPA's regulatory activities in a timely manner.
- Modernizing existing regulatory development processes to save resources. For example, the EPA is working to develop a process that will eliminate the need to provide hardcopy documents for publication in the *Federal Register*.
- Developing the EPA's Regulatory Agenda.
- Maintaining and upgrading regulatory planning and tracking tools to facilitate timely decisions and coordination across programs. This includes modernizing the Action Development Process using tools and processes to improve collaboration and transparency in alignment with the E-Enterprise business strategy. Modern IT tools can provide collaborative workspaces to increase efficiency and reduce costs while retaining or enhancing environmental benefits.

²¹⁷ Please refer to: <http://yosemite.epa.gov/ee/epa/eed.nsf/webpages/Guidelines.html> for additional information.

- Serving as the agency’s liaison with the Office of Information and Regulatory Affairs (OIRA) within the Office of Management and Budget (OMB) to facilitate review of agency actions under EO 12866 and lead the EPA’s review of regulatory actions from other agencies, departments and draft Executive Orders and Presidential Memoranda.
- Improving agencywide regulatory impact analyses, through the development of analytical tools and methods for quantifying the economic costs and benefits of the EPA’s regulations to better capture the actual cost burdens (including impacts on small business and government agencies) and enhancing the EPA’s understanding of regulatory impacts on job creation and growth when the economy is at less than full employment. These efforts to improve tools for quantification of costs and benefits and employment impacts also address recent GAO recommendations.²¹⁸
- Developing, in conjunction with the EPA’s Research and Development program and program offices, improved analytical tools to advance the EPA’s risk assessment methods used in quantifying human health benefits, particularly to children. The work supports agency efforts to further advance health benefits estimation methods so as to address the National Academy of Science and National Research Council’s *Science and Decisions* recommendations for dose-response analysis, including increased use of probabilistic methods.²¹⁹

Performance Targets:

Work under this program contributes to progress under all five Strategic Goals. Currently there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$724.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$1,576.0) This program change will enable the agency to incorporate recommendations from the National Academy of Sciences and conduct high-quality external technical peer reviews of influential methods and models. This work will include developing new and more accurate methods to support the assessment of cancer and non-cancer risks from toxic chemicals, and methods to address uncertainties in risk and economic analyses, as well as progress on economy-wide modeling. The increase also supports the refinement of methodologies to estimate the social costs and benefits of the agency’s rules and policies affecting energy and climate.

²¹⁸ EPA Should Improve Adherence to Guidance for Selected Elements of Regulatory Impact Analyses GAO-14-519: Published: Jul 18, 2014. Publicly Released: Aug 11, 2014, <http://www.gao.gov/products/GAO-14-519>.

²¹⁹ National Research Council. *Science and Decisions: Advancing Risk Assessment*. Washington, DC: The National Academies Press, 2009.

- (+\$1,296.0) This program change provides funding to enable the agency to begin developing a modernized IT system that will replace and consolidate existing regulatory tracking and reporting systems. Improvements include streamlined data entry, simplified data extraction for reporting, support for electronic transmission of documents to the Office of Federal Register, and integration Information Collection Request (ICR) processing with other regulatory processes. The new system will allow the agency to modernize data submission and to create consistency in data access and availability.

Statutory Authority:

Toxic Substances Control Act sections 4, 5, and 6 (15 United States Code (U.S.C.) 2603, 2604, and 2605); Clean Water Act sections 304 and 308 (33 U.S.C. 1312, 1314, 1318, 1329-1330, 1443); Safe Drinking Water Act section 1412 (42 U.S.C. 210, 300g-1); Resource Conservation and Recovery Act/Hazardous and Solid Waste Amendment : (33 USC 40(IV)(2761), 42 USC 82(VIII)(6981-6983)); Clean Air Act: 42 USC 85(I)(A)(7403, 7412, 7429, 7545, 7612); Comprehensive Environmental Response, Compensation and Liability Act: 42 U.S.C. 103(III)(9651); Pollution Prevention Act (42 U.S.C. 13101-13109); FTTA.

Science Advisory Board

Program Area: Legal / Science / Regulatory / Economic Review

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$4,685.1</i>	<i>\$5,110.0</i>	<i>\$6,072.0</i>	<i>\$962.0</i>
Total Budget Authority / Obligations	\$4,685.1	\$5,110.0	\$6,072.0	\$962.0
Total Workyears	22.8	22.2	21.6	-0.6

Program Project Description:

Congress established the EPA's Science Advisory Board (SAB) in 1978 and gave it a broad mandate to advise the Administrator on a wide range of highly visible and important scientific matters to ensure that the EPA's technical products are of the highest quality. The SAB and two other statutorily mandated chartered Federal Advisory Committees - the Clean Air Scientific Advisory Committee and the Advisory Council on Clean Air Compliance Analysis - draw from a balanced range of non-EPA scientists and technical specialists from academia, communities, states, independent research institutions, and industry. This program provides management and technical support to these Advisory committees, which provide the EPA's Administrator with independent advice and peer review on scientific and technical aspects of environmental problems, regulations, and research planning.²²⁰

FY 2016 Activities and Performance Plan:

In FY 2016, the SAB plans to conduct approximately 25 reviews and produce approximately 25 reports. These reports will convey science advice on various topics to the Administrator. The SAB will provide scientific and technical advice on: 1) highly influential scientific assessments underlying major environmental decisions, including chemical assessments in support of the EPA's Integrated Risk Information Systems (IRIS) program; 2) the technical basis for National Ambient Air Quality Standards for criteria air pollutants and ambient water quality criteria; 3) the EPA's research and technological programs; 4) cost-benefit analysis of the EPA's air quality programs; and 5) the potential impacts of hydraulic fracturing on drinking water.

Performance Targets:

Work under this program contributes to progress under all five Strategic Goals. Currently there are no performance measures for this specific program.

²²⁰ Please refer to: <http://www.epa.gov/sab/> for further information.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$400.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$562.0 / -0.6 FTE) This net program change includes additional resources to conduct peer reviews, host meetings to assess IRIS chemicals, and implement business process improvements resulting in a decrease in overall FTE. This will assure that logistical support is provided to help SAB adhere to Federal Advisory Committee Act guidelines.

Statutory Authority:

Environmental Research, Development, and Demonstration Authorization Act (ERDDAA); 42 U.S.C. § 4365; FACA, 5 U.S.C. App. C; CAA Amendments of 1977; 42 U.S.C. 7409(d) (2); CAA Amendments of 1990; 42 U.S.C. 7612.

Program Area: Operations and Administration

Facilities Infrastructure and Operations
Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inland Oil Spill Programs	\$456.9	\$584.0	\$1,762.0	\$1,178.0
<i>Environmental Program & Management</i>	<i>\$305,366.3</i>	<i>\$310,399.0</i>	<i>\$312,180.0</i>	<i>\$1,781.0</i>
Science & Technology	\$75,013.3	\$68,339.0	\$79,170.0	\$10,831.0
Leaking Underground Storage Tanks	\$797.4	\$792.0	\$1,103.0	\$311.0
Building and Facilities	\$23,532.6	\$35,641.0	\$43,632.0	\$7,991.0
Hazardous Substance Superfund	\$70,445.1	\$75,055.0	\$78,160.0	\$3,105.0
Total Budget Authority / Obligations	\$475,611.6	\$490,810.0	\$516,007.0	\$25,197.0
Total Workyears	355.4	367.4	359.5	-7.9

Program Project Description:

Environmental Program and Management (EPM) resources in the Facilities Infrastructure and Operations program fund the agency's rent, utilities, and security. This program also supports centralized administrative activities and support services, including health and safety, environmental compliance and management, facilities maintenance and operations, space planning, sustainable facilities and energy conservation planning and support, property management, printing, mail and transportation services. Funding is allocated for such services among the major appropriations for the agency.

This program also includes the agency's Protection Services Detail (PSD) that provides physical protection for the Administrator's daily activities and events. The PSD coordinates all personnel and logistical requirements including scheduling, local support, travel arrangements, and the management of special equipment.

FY 2016 Activities and Performance Plan:

As part of the EPA's efforts toward becoming a High Performing Organization (HPO), the agency reviews space needs, and is implementing a long-term space consolidation plan that will reduce the number of occupied facilities, consolidate space within the remaining facilities, and reduce the square footage wherever practical. In FY 2016, the EPA will continue to invest to reconfigure the EPA's workspaces with the goal of reducing long-term rent needs. This work will enable the agency to release office space and reduce costs as well as support the President's June 2010 memorandum on "Disposing of Unneeded Federal Real Estate." Between FY 2012

and FY 2014 the EPA released over 225 thousand square feet of space at headquarters and facilities nationwide, resulting in a cumulative annual rent avoidance of over \$8.3 million across all appropriations. These savings help offset the EPA’s escalating rent and security costs.

In FY 2014, the EPA completed the consolidation of 1310 L Street, which moved over 450 employees into existing Federal Triangle space which helps the agency avoid approximately \$7 million annually in rent starting in FY 2015. Consolidations and moves also are planned for Regions 1, 2, 4, 5, 9 and 10 that will allow the EPA to release another 210 thousand square feet of office space. For FY 2016, the agency is requesting \$155.87 million for rent, \$10.69 million for utilities, and \$28.87 million for security in the EPM appropriation.

In FY 2016, the EPA will continue to improve operating efficiency and encourage the use of advanced technologies and energy sources to meet the goals of Executive Order (EO) 13423,²²¹ *Strengthening Federal Environmental, Energy, and Transportation Management*. The agency will attain the EO’s environmental performance goals related to buildings through several initiatives, including: comprehensive facility energy audits; re-commissioning; and sustainable building design.

EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, expands upon EO 13423 and requires additional reductions to greenhouse gas (GHG) emissions. To meet the requirements of EO 13514 the EPA will manage existing building systems to reduce consumption of energy, water, and materials, consolidate and dispose of existing facilities, and optimize real property and portfolio performance. In FY 2016, the agency is targeting to reduce energy utilization (or improve energy efficiency) by approximately 37 billion British Thermal Units or three percent. This ongoing effort to become more efficient has yielded impressive results - approximately 27 percent less energy used in FY 2014 than in FY 2003, and annual cost savings of \$5.9 million agencywide.

Performance Targets:

Measure	(010) Cumulative percentage reduction in Greenhouse Gas (GHG) Scopes 1 & 2 emissions.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target		1.0	0.4	6.4	12.2	16.3	16.3	16.3	Percent
Actual		79.5	59	54.1	57.4	Data Avail 02/2015			

Measure	(098) Cumulative percentage reduction in energy consumption.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	12	15	18	21	24	27	27	27	Percent
Actual	18	18.3	18.1	23.7	25.6	28.9			

The EPA has surpassed its initial targets for GHG emissions goal in part due to green power purchases. The EPA’s GHG reduction effort is accomplished through a range of energy conservation efforts, including the purchase of renewable energy credits. Information on the

²²¹ Information is available at <http://www.fedcenter.gov/programs/eo13514/>, *Federal Leadership in Environmental, Energy, and Economic Performance*; and <http://www.fedcenter.gov/programs/eo13423/>, *Strengthening Federal Environmental, Energy, and Transportation Management*.

agency's energy/GHG reduction initiative can be found in the agency's Strategic Sustainability Performance Plan at http://www.epa.gov/greeningepa/documents/sspp2012_508.pdf.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$3,674.0) This net change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs including transit subsidy.
- (-\$1,893.0 / -3.7 FTE) This net change to fixed and other costs is due to the recalculation of rent, utility and security (RUS) needs, regional owned laboratory operations and maintenance, and other basic facility operations. There is a net reduction of \$9,510.0 in RUS in EPM due to rent avoidance realized from space consolidation efforts as well as business process changes and efficiencies anticipated to be achieved from implementing operational changes at agency facilities. These savings are rebalanced across the appropriations; the agency overall change in RUS is \$371.0.

Statutory Authority:

Federal Property and Administration Services Act; Public Building Act; Annual Appropriations Act; Robert T. Stafford Disaster Relief and Emergency Assistance Act; CWA; CAA; RCRA; TSCA; NEPA; CERFA; D.C. Recycling Act of 1988; Energy Policy Act of 2005; Executive Orders 10577, 12598, 13150 and 13423; Emergency Support Functions (ESF) #10 Oil and Hazardous Materials Response Annex; Department of Justice United States Marshals Service, Vulnerability Assessment of Federal Facilities Report; Presidential Decision Directive 63 (Critical Infrastructure Protection).

Central Planning, Budgeting, and Finance
Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$73,721.3</i>	<i>\$72,851.0</i>	<i>\$76,057.0</i>	<i>\$3,206.0</i>
Leaking Underground Storage Tanks	\$677.0	\$421.0	\$440.0	\$19.0
Hazardous Substance Superfund	\$21,723.1	\$22,352.0	\$24,277.0	\$1,925.0
Total Budget Authority / Obligations	\$96,121.4	\$95,624.0	\$100,774.0	\$5,150.0
Total Workyears	486.4	499.2	493.4	-5.8

Program Project Description:

Activities under the Central Planning, Budgeting and Finance program support the management of integrated planning, budgeting, financial management, performance and accountability processes, and financial systems to ensure effective stewardship of resources. This includes developing, managing, and supporting a performance management system consistent with the Government Performance and Results Modernization Act for the agency that involves strategic planning and accountability for environmental, fiscal, and managerial results; providing policy, systems, training, reports, and oversight essential for the financial operations of the EPA; managing the agencywide Working Capital Fund; providing financial payment and support services for the EPA through three finance centers, as well as specialized fiscal and accounting services for many EPA programs; and managing the agency's annual budget process.

FY 2016 Activities and Performance Plan:

The EPA will continue to provide high-quality resource stewardship to ensure that all agency programs operate with fiscal responsibility and management integrity, are efficiently and consistently delivered nationwide, and demonstrate results. Building on work begun in FY 2014 and 2015, the EPA will continue to monitor and strengthen its internal controls with a focus on sensitive payments and property. The program will continue to support the agency's Lean efforts to move toward a high performance organization (HPO) and business process improvement agencywide. The resources requested in this program will provide FTE for Lean support in the Regional Offices to more fully integrate Lean practices throughout the EPA. To date, the agency has successfully conducted several Lean events that will streamline and improve financial stewardship across the agency, including the interagency agreement management process, the unliquidated obligation / deobligation process, and software applications accounting process.

The EPA also will continue to improve accessibility to data to support accountability, cost accounting, budget and performance integration, and management decision-making.

In FY 2016, the systems emphasis, for Compass, HRLoB and other core systems, will be on operations and maintenance. The resources requested for operations and maintenance includes funding for implementing technology refreshments and minor enhancements, renewing software licenses, as well as providing refresher and new user training.

The EPA will continue development of its Budget Formulation System in FY 2016 to replace the current Budget Automation System. The new system will create efficiencies through automating a number of manual, time-intensive processes and by providing new enterprise tools for agency resource management, and reducing the need for local systems. The new system will have a more streamlined performance module that is aligned with Office of Management & Budget (OMB) and agency requirements, as well as a flexible structure that can be easily modified to support the Common Government-wide Accounting Classification, evolving OMB/Hill budget reporting and tracking requirements, as well as other agencies' budget structures. The plan is for the system to be deployed as a cloud service within the EPA and as a shared service for other agencies.

In FY 2016, the EPA also will continue to modernize and modify the agency Account Code Structure to improve tracking and reporting capabilities, maximizing the benefits within the new Compass financial system. Congressional and OMB requirements will be incorporated and the structure will be simplified, eliminating complicated and conflicting data structures and allowing for improved agency-level reporting. Coordinating the updated account structure with other changes to the financial systems will create significant programming and implementation efficiencies and enable the EPA to implement the provisions of the Digital Accountability and Transparency Act of 2014.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,560.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$1,300.0 / -5.0 FTE) Resources have been decreased and realigned to reflect the agency's decision to move the Center for Environmental Finance to Drinking Water and Surface Water Protections Programs to support the new Water Finance Center as part of the water infrastructure investments.
- (+\$484.0 / +3.5 FTE) This program change reflects an increase to support regional Lean efforts under the agency focus on becoming a HPO. These resources will work with the

Lean national program to more fully integrate Lean Culture in the Regional Offices. These staff will undertake specialized Lean training and support business process changes across all agency programs.

- (-\$362.0 / -2.7 FTE) This program change reflects a reduction as a result of the agency's continued efforts to streamline financial management business processes and find efficiencies across headquarters and Regional Offices.
- (+\$219.0) This program change reflects an increase to provide additional resources to support implementation of the FY 2016 Cross Agency Priority goals to support management reforms and efficiencies in the areas of infrastructure permitting modernization, strategic sourcing, and mission support operations.
- (+\$2,605.0) This program change reflects an increase to provide resources to complete planned adaptive maintenance to modernize and modify the Account Code Structure and Cost Allocation modules the agency's financial system Compass to improve agency-level reporting and perform other ongoing systems maintenance.

Statutory Authority:

Annual Appropriations Act; Data Accountability and Transparency Act of 2014; Clinger-Cohen Act of 1996; Computer Security Act of 1987; E-Government Act of 2002; Electronic Freedom of Information Act of 1996; Federal Grant and Cooperative Agreement Act of 1977; Federal Activities Inventory Reform Act of 1998; Federal Acquisition Regulations, contract law and the EPA's Assistance Regulations (40 CFR Parts 30, 31, 35, 40, 45, 46, 47); Federal Managers' Financial Integrity Act of 1982; Freedom of Information Act of 1966; Government Management Reform Act of 1994; Improper Payments Information Act of 2002; Improper Payments Elimination and Recovery Act of 2010; Inspector General Act of 1978 as Amended; Paperwork Reduction Act of 1995; Privacy Act of 1974; Chief Financial Officers Act of 1990; Government Performance and Results Act of 1993; The Prompt Payment Act of 1982; Title 5, U.S.C; National Defense Authorization Act.

Acquisition Management

Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$34,537.6	\$30,761.0	\$37,974.0	\$7,213.0
Leaking Underground Storage Tanks	\$147.4	\$139.0	\$138.0	(\$1.0)
Hazardous Substance Superfund	\$23,499.7	\$21,989.0	\$23,923.0	\$1,934.0
Total Budget Authority / Obligations	\$58,184.7	\$52,889.0	\$62,035.0	\$9,146.0
Total Workyears	315.8	308.7	304.5	-4.2

Program Project Description:

Environmental Program and Management (EPM) resources in the Acquisition Management program support the EPA's contract activities, which foster efficiency and benefit the entire agency.

FY 2016 Activities and Performance Plan:

As part of the EPA's efforts toward becoming a High Performing Organization and in accordance with *Acquisition Workforce Development Strategic Plan*, the EPA will use EPM resources to strengthen its contract management training program, to improve the EPA Acquisition System's user interface, and to recruit, retain, and hire acquisition workforce in line with the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 401 et seq.).

In order to comply with the DATA Act's reporting requirements, the EPA's contract writing system, the EPA Acquisition System (EAS), which is based on the Commercial-Off-The-Shelf Package, PRISM, may need to be modified with the inclusion of an additional data field providing each award with a unique identification number. The unique identification number will allow the EPA to correlate and provide a unified reporting of data from its contract writing, grants management, and financial management systems. As many agencies use PRISM, we are currently in collaboration with the vendor and other agencies to see what the most cost efficient direction would be to meet the goals of the DATA Act. The EPA expects changes in the aforementioned systems and associated data mart. Other expenses will include, modifications of existing reports and development of new reports, analysis and changing of historical data, analysis and re-engineering of agency business processes appropriate and training of impacted organizations.

The EPA's *Strategic Sourcing Program (SSP)* allows the agency to research, assess, and award contract vehicles that will maximize time and resource savings for services and products, including improved efficiencies in lab and office supplies, and cellular services. The SSP serves as a foundation for effective financial and resource management because it simplifies the acquisition process while reducing costs. In FY 2016, the EPA will continue to create efficiencies by enhancing purchase coordination across the agency to improve price uniformity, improving knowledge-sharing across the EPA, and leveraging small business capabilities to meet the EPA's acquisition goals. Based on the strategic sourcing opportunities identified in the EPA's spend analysis, the agency anticipates establishing strategic contract vehicles and/or approaches in FY 2016 to acquire Superfund remediation services, Information Technology application development and support services, and software. The long-term SSP plan²²² will transform the agency's acquisition process into a strategically driven function, ensuring maximum value for every acquisition dollar spent. The agency has established a goal of obtaining at least five percent savings for goods and services. For the two current strategic sourcing commodities (cellular services and print management), the agency has achieved savings of 38 percent and 6 percent, respectively, during FY 2014. The EPA anticipates savings of 20 percent and 10 percent, respectively in FY 2015. Cellular savings in FY 2014 reflected some one-time savings related to the acquisition of new mobile devices. Print savings reflect the mid-year date of the contract modification under which the agency obtained a better pricing structure.

In FY 2016, the agency will review and evaluate its achievements from adopting a Centers of Expertise for contracting approach: the implementation of cost saving strategies, increased operational efficiencies, and more effective and responsive contracting support. The Office of Acquisition Management (OAM), which is leading the Centers of Expertise in Contracting initiative, finalized a new organization structure in FY 2014. OAM will begin to transition to the new structure in late FY 2015. The revised structure will realign the agency's acquisition functions and resources to better support the strategic acquisition of goods and services addressed above. More specifically, the initiative is focused on opportunities to realign the agency's contracting functions within OAM and in the regions to better leverage the agency's limited contracting resources, and improve the timeliness and quality of the agency's contracting operations. This will include opportunities to centralize certain contract planning, placement, and administrative functions and activities to gain efficiencies and improve customer service. Such opportunities may include centralizing contracting operations for commonly acquired goods and services, e.g., information technology, and certain administrative functions such as agencywide closeout activities. Centralizing such activities will heighten the level of transparency in the agency's acquisition programs that will reduce if not eliminate unnecessarily redundant contracts for the same goods and services, eliminate non-value added business processes and bring greater consistency to the application of contracting procedures, facilitate a higher-level of expertise for the agency's contracting personnel in understanding the mission objectives and priorities of the customer, the capabilities of the commercial marketplace to support those objectives and priorities, and innovative acquisition and management strategies that will result in more effective and efficient support to the end user.

The EPA also plans to reinforce its contract oversight responsibilities through OMB Circular A-123 - internal control assessments, increased targeted oversight training for acquisition

²²² The SSP plan can be found at <http://oamintra.epa.gov/node/451>.

management personnel, and Simplified Acquisition Contracting Officer (SACO) reviews. These measures will strengthen the EPA's acquisition management business processes and enhance contract oversight.

Performance Targets:

Measure	(009) Increase in number and percentage of certified acquisition staff (1102)								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				335 / 80	323 / 80	85	85	85	Number/ Percent
Actual				323/85	285/ 85	93			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,009.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$5,450.0) This program change reflects an increase to adapt the EPA’s Acquisition System (EAS) to comply with the DATA Act’s reporting requirements, part of a government-wide effort to increase transparency of government purchase. The increase will enable the EPA to create additional data fields in all related accounting and reporting systems so the agency can track each award with a unique identification number. In addition, resources will support modifications of existing reports and development of new reports, analysis and changing of historical data, analysis and re-engineering of agency business processes as appropriate and training of impacted organizations.
- (+\$754.0 / -2.0 FTE) This net program change reflects an increase of critical resources for basic support costs associated with the EPA Acquisition System (EAS). The FTE reduction reflects a decline in the need for support for acquisition management.

Statutory Authority:

The EPA’s Environmental Statutes; annual Appropriations Acts; FAR. Office of Federal Procurement Policy Act, as amended (41 U.S.C. 401 et seq.).

Financial Assistance Grants / IAG Management

Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$23,371.7	\$24,897.0	\$27,847.0	\$2,950.0
Hazardous Substance Superfund	\$3,221.4	\$2,725.0	\$3,027.0	\$302.0
Total Budget Authority / Obligations	\$26,593.1	\$27,622.0	\$30,874.0	\$3,252.0
Total Workyears	162.4	160.8	160.2	-0.6

Program Project Description:

Environmental Program and Management (EPM) resources in the Financial Assistance Grants and Interagency Agreement (IA) Management program support the management of grants and IAs, and suspension and debarment activities. Resources in this program ensure that the EPA's management of grants and IAs meet the highest fiduciary standards, that grant/IA funding produces measurable results for environmental programs, and that the suspension and debarment program effectively protects the government's business interest.

FY 2016 Activities and Performance Plan:

To further the agency's theme of making the EPA a High Performing Organization, and recognizing the constrained budget environment, the agency will continue to focus on key objectives under its Grants Management Transformation Initiative (GMTI). The GMTI is designed to achieve efficiencies while enhancing quality and accountability.

In FY 2016, the GMTI will focus on: 1) implementing business process improvements identified through LEAN exercises to eliminate duplication of effort between unliquidated obligation and baseline monitoring reviews and streamline the closeout process; 2) replacing the outdated technology of the existing Integrated Grants Management System with robust Business Process Management technologies to modernize the pre-award and award work flows; 3) full use of Grants.gov as the standard electronic option for the initial submission of grant applications to achieve resource savings associated with reduced manual data entry and automated data validation; 4) expanding the use of electronic grant/IA records; 5) leveraging resources to address Project Officer and Grant and IA specialist workload issues, including reducing the number of part-time Project Officers that manage 1 or 2 grants; 6) implementing strategies to reduce the number of grants that have to be managed through greater use of grant consolidation or sub awards; 7) expanding the 'geo-mapping' of grant place of performance to improve the

quality of the EPA's grant data in USA Spending and ensure alignment with the EPA's EJ Screen Tool; 8) migrating the aging Grantee Compliance Database to user-friendly platforms in OMB Max; and 9) reducing the reporting burden on applicants and recipients. As a supplement to the GMTI, the EPA will implement a new Grants Management Plan and agency-specific regulations required by the OMB Omni-Circular.

In FY 2016, the EPA will invest in IGMS Cloud, which will replace outdated technology. The agency is planning to eliminate the underlying licenses for the old systems software. The EPA identified IGMS Cloud as the optimal solution because: 1) it allows the agency to avoid costly software development and license fees common in large, administrative systems and 2) the system's modular architecture enables incremental roll-out, which will result in the lowest estimated deployment time among all systems reviewed besides that of the status quo. IGMS Cloud also will demand fewer training resources as the system is based on the existing grants system infrastructure. The system relies on a flexible platform that will enable it to adapt to changing technology and business processes, and will allow it to easily integrate with other agency systems.

To promote accountability, the EPA will continue to conduct on-site and pre-award reviews of grant recipients and applicants and perform indirect cost rate and unliquidated obligation reviews. The agency also will continue to administer training programs to maintain a skilled grants/IA management workforce, including classroom and on-line training for the agency's grant and IA Project Officers, a comprehensive new training program for the EPA's Grant and IA specialists, and mandatory training for managers and supervisors involved in grants and IA management. The EPA will coordinate these efforts with OMB grants management training initiatives. In FY 2016, the EPA will analyze available grant data to assess whether the GMTI streamlining reforms enacted over the past three fiscal years have achieved their intended efficiencies.

The EPA is a recognized leader in suspension and debarment. The agency will continue to make aggressive use of discretionary debarments and suspensions as well as statutory debarments under the Clean Air Act and Clean Water Act to protect the Government's business interest. This will include a goal of at least 300 Suspension and Debarment case actions and full implementation of a new case management system that will facilitate case processing.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, agencywide performance measures for this specific program are outlined in the EPA's 2009-2013 Grants Management Plan. The EPA will issue a new Grants Management Plan, with associated performance measures, in FY 2015 incorporating GMTI themes.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,476.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.

- (+\$1,474.0 / -0.2 FTE) This net program change reflects an increase in IGMS Cloud, which will replace outdated technology. In reviewing system options, the EPA selected IGMS Cloud because it enabled the agency to avoid costly software development and license fees common in large, administrative systems. The system's modular architecture enables incremental roll-out and results in the lowest estimated deployment time besides that of the status quo. Further, IGMS Cloud will demand fewer training resources as the system is based on existing grants system infrastructure. IGMS Cloud relies on a flexible platform that will enable it to adapt to changing technology and business processes, and will allow it to easily integrate with other agency systems. The reduced FTE reflects efficiencies anticipated to be achieved in grants management as a result of implementing the LEAN business re-engineering project.

Statutory Authority:

The EPA's Environmental Statutes; Annual Appropriations Acts, including the Disaster Relief Appropriations Act, 2013; Federal Grant and Cooperative Agreement Act; Title 2 Code of Federal Regulations, Parts 180, 200, 1500 and 1532; and Title 40 Code of Federal Regulations, Parts 30, 31, 33, 35, 40, 45, 46, and 47.

Human Resources Management

Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$39,052.3</i>	<i>\$43,843.0</i>	<i>\$51,344.0</i>	<i>\$7,501.0</i>
Hazardous Substance Superfund	\$6,590.7	\$5,984.0	\$7,953.0	\$1,969.0
Total Budget Authority / Obligations	\$45,643.0	\$49,827.0	\$59,297.0	\$9,470.0
Total Workyears	231.8	238.1	244.1	6.0

Program Project Description:

Environmental Programs and Management (EPM) resources for the Human Resources Management program support human capital and human resources management services throughout the agency. To help the agency achieve its mission and ensure management and employee satisfaction, the agency continually evaluates and improves human resource functions in outreach, recruitment, hiring, workforce development, and diversity and inclusion. EPM resources also support advisory committee work aimed at managing programs that address scientific and environmental issues.

FY 2016 Activities and Performance Plan:

As part of the EPA's efforts toward becoming a High Performing Organization (HPO), the agency will continue to implement the comprehensive hiring reform laid out in the Presidential Memorandum *Improving the Federal Recruitment and Hiring Process*, which required executive departments and agencies to "overhaul the way they recruit and hire our civilian workforce." The key facets of the hiring reform are: ease the hiring process while raising the bar on candidate quality; increase engagement of agency leaders in the recruitment and selection process; and monitor agency efforts to increase the speed and quality of hiring. In addition, the EPA will continue to support the President's Management Agenda, including improving the efficiency of government by increasing the quality and value of core operations and enhancing productivity to achieve cost savings in the mission-support function such as human capital.

In FY 2016, the agency will continue to implement the EPA University, which will include a central repository for all agency learning and development. The purpose of the EPA University is to share learning opportunities with employees, encourage shared resources and services across the agency, and increase agencywide collaboration, resulting in greater efficiencies for the agency and better availability of development resources for all staff. It also will support

flexibility as workforce realignments occur and new skills are needed. This process will continue to support the agency's focus on maintaining a HPO while actively marketing internal technical and core competency learning events.

The EPA will continue its focus on Labor and Employee Relations (LER) through facilitating, administering, and/or negotiating national and Headquarters labor agreements and providing advice, guidance and assistance to regional and local level negotiations. In FY 2016, the EPA is requesting additional staff to provide advice and counsel to managers and supervisors on workplace concerns and will offer proactive training to reduce the number of agency disciplinary actions and grievances. The EPA is experiencing an increase in the demand for LER services from increased agency activity related to: the scrutiny of management practices, the need for training to address changes to agency practices, compliance training, disciplinary actions, workforce reduction and reorganizations, space consolidation, and telework expansion.

In FY 2016, the Human Resources Management program will continue supporting work that ensures diversity in leadership development training to enhance workforce retention and strengthen the agency's succession management. The EPA will employ a vibrant and well-trained cadre of Special Emphasis Program Managers that assist in outreach efforts to promote diversity, inclusion and equal employment opportunities throughout the EPA. In addition, the agency will focus on sustained senior leadership accountability for a diverse and integrated workplace.

The EPA's advisory committees, which operate as a catalyst for public participation in policy development, implementation, and decision making, have proven effective in building consensus among the agency's diverse external partners and stakeholders. The agency will continue to manage participation and collaboration to maximize the value these committees add to important policy considerations.

The EPA will continue to streamline human resources management with the E-Government initiative and the Human Resources Line of Business (HRLoB) program. HRLoB offers government-wide, cost effective, and standardized HR solutions while providing core functionality to support the strategic management of human capital. The EPA expects to yield long-term improvements to its HR business process through automated processing of HR forms, an integrated HR and payroll system, and seamless data transfer from the recruitment process. The Department of Interior's Business Center (IBC) manages the EPA's HRLoB.

The EPA uses HRLoB for human resource transaction and payroll processing, and for data reporting. After stabilizing the HR LoB systems in FY 2015, the EPA will finalize the migration strategy and initiate the clean-up and migration of human resource data from the legacy system to HRLoB in FY2016. The EPA must maintain legacy data because HRLoB migration occurs at a point in time and resets all transaction history from the migration forward. In addition, in order to service ongoing requests for employment dates, salary data and other vital information, the EPA requires access to this information.

Performance Targets:

The EPA uses a government-wide performance metric (found at <http://archive-hr.performance.gov/initiative/hire-best/agency/EPA>) to track its progress in reducing the average number of days required to hire a new employee. Through the agency's hiring reform efforts, including automating processes and improving hiring tools and practices, the EPA expects to continue to reduce the number of days to hire new employees.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,763.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs and to ensure adequate funding for childcare subsidy, workers compensation, and unemployment compensation.
- (+\$794.0 / +6.0 FTE) This program change is an increase of 6.0 FTE associated with LER activities. The LER staff is responsible for facilitating, administering, and/or negotiating national and Headquarters labor agreements and providing advice, guidance and assistance to regional and local level negotiations.
- (+\$3,362.0) This program change increases resources to support the EPA University, a central repository for all agency learning and development initiatives that will use technology to engage a wider audience of employees in learning and development opportunities. These resources will fund the redesign of the agency's training and development process, including curriculum management, design and evaluation; enhanced coursework; and improved delivery systems.
- (+\$1,582.0) This program change increases essential resources to fund HRLoB support costs to finalize the migration strategy and initiate the clean-up and migration of human resource data from the legacy HR system to HRLoB. This also includes an increase in contractual services for the EPA's sign language program based on increased demand for sign language translation and an increase in fees that the IBC charges the EPA for HRLoB.

Statutory Authority:

Title V USC, Federal Activities Inventory Reform Act of 1998 (FAIR Act); Federal Advisory Committee Act; North American Free Trade Agreement Implementation Act; U.S./Mexico Border.

Program Area: Pesticides Licensing

Pesticides: Protect Human Health from Pesticide Risk

Program Area: Pesticides Licensing

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$50,633.7	\$55,698.0	\$60,019.0	\$4,321.0
Science & Technology	\$3,660.5	\$3,197.0	\$3,266.0	\$69.0
Total Budget Authority / Obligations	\$54,294.2	\$58,895.0	\$63,285.0	\$4,390.0
Total Workyears	395.0	405.8	403.7	-2.1

Program Project Description:

Under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Food, Drug, and Cosmetic Act (FFDCA), as amended by the Food Quality Protection Act (FQPA) of 1996 and the Pesticide Registration Improvement Extension Act of 2012 (known as PRIA3), the EPA is charged with protecting people from the health risks that pesticide use can pose. FIFRA requires the EPA to register pesticide products before they are allowed to be marketed for use in the United States. Registration is based on review by EPA scientists and decision-makers of scientific data sufficient to demonstrate that the product can perform its intended function without unreasonable adverse effects on people or the environment.

The statutes above charge the EPA with issuing pesticide registrations and setting tolerances (maximum residue levels) for pesticides in food and animal feed and with periodically reviewing the registrations and tolerances that the agency issues, to ensure that public health is adequately protected. The program addresses these requirements by conducting risk assessments using the latest scientific methods for new and existing pesticides. Agency scientists examine the risks that pesticides pose to human health through the diet and through exposure at work, at home, in school, or at play. The EPA pesticide program also reduces the risks of disease by ensuring the efficacy of public health pesticides (pesticides that control pests or bacteria that vector disease or for other recognized health protection uses). The EPA encourages the development and use of safer pesticides and educates pesticide users and the public in general through labeling as well as public outreach.

Pesticide Registration and Tolerance Setting

Under the FFDCA, if a pesticide is to be used in a manner that may result in pesticide residues in food or animal feed, before it can be registered, the EPA must establish a tolerance, or maximum legal residue level or exemption from the requirement of a tolerance, for each affected food or feed commodity. To establish a tolerance, the EPA must find that the residues are “safe,” which, under FFDCA, means that there is a reasonable certainty of no harm to human health from aggregate exposure to the pesticide residue in food and from all other exposure except occupational exposure.

The passage of FQPA in 1996, which amended both FIFRA and FFDCFA, not only introduced this stricter safety standard, it also mandated the consideration of a number of other factors including cumulative and aggregate effects. When assessing a pesticide registration or tolerance, the EPA also must consider the cumulative effects of related pesticides with a common mode of toxicity and the potential for endocrine disruption effects, and apply an appropriate safety factor to ensure the protection of infants and children. In addition, the EPA must include aggregate exposure, including all dietary exposure, drinking water, and non-occupational exposures. All these pesticide exposures from food, drinking water, and home and garden use must be considered when determining allowable levels of pesticides in food. Also since the passage of FQPA, the EPA's risk assessment process must incorporate a 10-fold safety factor (10X) for infants and children unless reliable information in the database on the chemical indicates that it can be reduced or removed. Under FQPA, even the limited, temporary use under an emergency exemption may not be allowed without the establishment of a tolerance.

To comply with statutory mandates, the EPA conducts risk assessments using the latest scientific methods to determine the risks that pesticides pose to human health, including reviewing comprehensive toxicity, residue chemistry, and other data submitted by pesticide manufacturers (registrants) as required by the EPA, and consulting public literature or other sources of supporting information regarding the pesticide's effects or exposure. Toxicity data are used to identify the hazard potential of a pesticide. Residue chemistry data are used to determine the identity and amount of pesticide in or on food. The agency reviews all data to make sure they were developed according to standard practices within the discipline and the EPA's test guidelines. In addition to toxicity and residue chemistry data, the EPA may also use other data to refine and make more realistic exposure assessments for residues on food and exposure to workers, bystanders and people who live, work, play, and go to school in treated areas. For example, to approximate people's actual exposures and potential risks from current uses of a pesticide, the agency scientists incorporate regional exposures (from monitoring and/or modeling results) from residential and drinking water sources, thus accounting for the variation of potential exposure in different parts of the country. This could result in label restrictions in certain areas to reduce the exposure predicted from water. Risk assessments undergo an internal peer review, and regulatory decisions are posted on the Internet for review and comment to ensure that these actions are transparent and stakeholders are engaged in decisions affecting their health and environment. When complex scientific issues arise, the agency consults the FIFRA Scientific Advisory Panel (<http://www.epa.gov/scipoly/sap/>) for independent scientific advice.

Periodic Review of Registrations and Tolerances

Not only must the EPA conduct risk assessments before the initial registration of each pesticide for each use, but the FQPA amendments also introduced the requirement that every pesticide registration be reviewed at least every 15 years. This periodic review is accomplished through our Registration Review Program.²²³ In the interest of efficiency and fairness and to facilitate the assessment of cumulative exposures, the agency reviews certain related pesticides (such as the pyrethroids and pyrethrins, the neonicotinoids, or the fumigants) at the same time. Pesticide cases may be related by chemical class or structure, mode of action, use, or for other reasons.

²²³ http://www.epa.gov/oppsrrdl/registration_review/highlights.htm.

Ensuring Proper Use and Mitigating Risks of Pesticides through Labeling

Under FIFRA, it is illegal to use a registered pesticide in a manner inconsistent with the label instructions and precautions. Therefore, the EPA uses pesticide labels to indicate what uses are appropriate in order to ensure that the pesticide does not cause unreasonable adverse effects on human health or the environment, as determined by the risk assessment. The EPA pesticide product registrations include required labeling instructions and precautions. When risks are identified during the initial registration or during registration review, the agency may mitigate those risks by requiring label changes, for example, requiring personal protective equipment for applicators, or changing the application method or rate or the time when the treated area may be reentered. Ensuring the proper use of pesticides prevents unnecessary pesticide exposure to the person applying the pesticide and people working, living, or playing nearby. It also prevents excessive residues in the food people eat and in animal feed.

Reducing Pesticide Risks to People through the Registration of Lower Risk Pesticides

To further protect human health, this program emphasizes the use of reduced risk methods of pest control, including the use of reduced risk pesticides and helping growers and other pesticide users learn about new, safer products and methods of using pesticides. The EPA began promoting reduced risk pesticides in 1993 by giving registration priority to pesticides that have lower toxicity to humans and non-target organisms such as birds, fish, and plants; low potential for contaminating groundwater; lower use rates; low pest resistance potential; and compatibility with Integrated Pest Management (IPM).²²⁴ Biological pesticides and biotechnology often represent lower risk solutions to pest problems.

Several other countries and international organizations also have instituted programs to facilitate registering reduced risk pesticides. The EPA works with the international scientific community and the Organization for Economic Cooperation and Development (OECD) member countries to register new reduced risk pesticides and to establish related tolerances (maximum residue limits). Through these efforts, the EPA can help reduce risks to Americans from foods imported from other countries.

Protecting Workers from On-the-Job Pesticide Risks

Millions of America's workers are exposed to pesticides in occupations such as agriculture, lawn care, food preparation, and landscape maintenance. Protecting workers from potential effects of pesticides is an important role of the Pesticide Program. Workers in several occupations may be exposed to pesticides when they prepare pesticides for use, such as by mixing a concentrate with water or loading the pesticide into application equipment; apply pesticides, such as in an agricultural or commercial setting; or when they enter an area where pesticides have been applied to perform allowed tasks such as picking crops.

The Worker Protection Standard (WPS) is a key part of the EPA's strategy for reducing occupational exposure to agricultural pesticides. It requires employers to ensure that their

²²⁴ See U.S. Environmental Protection Agency, Pesticides: Health and Safety, Reducing Pesticide Risk internet site: <http://www.epa.gov/pesticides/health/reducing.htm>.

employees understand the basic concepts of pesticide safety. Employees need to be trained by qualified trainers and must have the opportunity to ask questions during the training session. Certification and training regulations require that “restricted use” pesticides may be applied only by or under the direct supervision of specially trained and certified applicators. Certification and training programs are conducted by states, territories, and tribes in accordance with national standards.

The EPA proposed revisions to the WPS rule in 2014. The WPS rule, covering farms, forests, nurseries and greenhouses, has not been updated since 1992. The EPA’s revised WPS will afford farm workers similar health protections to those already enjoyed by others workers in other jobs. Protecting our nation’s farm workers from harmful pesticide exposure is at the core of the program’s work to ensure environmental justice for all Americans. In support of the implementation and enforcement of the final regulation in FY2016, EPA will: issue revised inspection guidance; revised compliance monitoring strategy and implementation guidance for Regions and States; develop and make available a revised “Quick Reference Guide” & “How to Comply” manual; develop and hold state regulator training courses and webinars; and, develop and issue revised FIFRA cooperative agreement guidance and online train-the-trainer programs.

The changes are the result of more than a decade of extensive input from federal, state, and local partners, the farm worker community, farmers and growers.

Preventing Disease through Public Health Pesticides

Antimicrobial pesticides play an important role in public health and safety by killing germs, bacteria, viruses, fungi, protozoa, algae, and slime. Some of these products are used to sterilize hard surfaces in hospitals. Chemical disinfection of hard, non-porous surfaces such as floors, bed rails and tables is one component of the infection control systems in hospitals, food processing operations, and other places where disease-causing microorganisms, such as bacteria and viruses, may be present. In reviewing registrations for antimicrobials, the EPA is required to ensure that antimicrobials maintain their effectiveness.²²⁵ The EPA’s Antimicrobial Testing Program has been testing hospital sterilants, disinfectants, and tuberculocides since 1991 to help ensure that products in the marketplace meet stringent efficacy standards. Other pesticides also protect public health, such as insecticides and rodenticides that combat insects and other pests that carry disease such as West Nile virus, Lyme disease, and rabies.

Outreach and Education

Giving priority to reduced risk and Integrated Pest Management (IPM)-friendly pesticides is one step toward protecting human health. It is also important for the people using pesticides to be well informed, to understand the importance of reading and following label directions and the importance of proper disposal, and they also need to understand how to protect themselves from pests that can transmit disease. The Pesticide Program, invests in environmental education and training efforts for growers, pesticide applicators, and workers, as well as the public in general. The EPA will continue to work to reduce the number and severity of pesticide exposure incidents by developing effective communication, environmental education, and training programs.

²²⁵FIFRA section 3(h)(3), 7 U.S.C. 136a(h)(3).

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will review and register new pesticides, new uses for existing pesticides, and other registration requests in accordance with statutory requirements. Additional funding is requested to provide support for risk assessments for Registration and Registration Review in order to meet PRIA3 and FIFRA statutory requirements. To further advance the EPA's cross agency strategy of working for environmental justice and children's health, the EPA will process these registration requests with special consideration given to susceptible populations, especially children. Specifically, the EPA will focus on the foods commonly eaten by children in order to reduce pesticide exposure to children where the science identifies potential concerns. The EPA uses data from various sources, including the Pesticide Data Program (PDP) and the National Health and Nutrition Examination Survey (NHANES), to assess children's potential risk from pesticides. Pesticide registration actions focus on the evaluation of pesticide products before they enter the market.²²⁶ The EPA will review pesticide data and impose use restrictions and instructions needed to ensure that pesticides used according to label directions will not result in unreasonable risk. During its pre-market review, the EPA will consider human health and environmental concerns as well as the pesticide's potential benefits.

The EPA will continue to emphasize the registration of reduced risk pesticides, including biopesticides, in order to provide farmers and other pesticide users with new safer alternatives. In FY 2016, the agency, in collaboration with the United States Department of Agriculture (USDA), will work to ensure that minor use registrations receive appropriate support. The EPA also will ensure that needs are met for reduced risk pesticides for minor use crops. Additionally, the EPA will assist farmers and other pesticide users in learning about new, safer products and methods of using existing products through workshops, demonstrations, small grants, and materials available on the website and in print. The EPA will continue to support biotechnology efforts to educate the American public about pesticides related water quality issues and standards.

During FY 2016, the EPA will continue to review the registrations of existing pesticides and develop work plans for pesticides entering the review pipeline. The priority will be toward reviewing those pesticides that need review in order to mitigate risk. The goal of the registration review process is to review pesticide registrations every fifteen years to ensure that pesticides already in the marketplace meet the most current scientific standards and to address concerns identified after the original registration.²²⁷ The completion of the first round of these reviews is due in FY 2022. This program, as mandated by statute, supports the EPA's priorities including ensuring the safety of chemicals and protecting America's waters.

In FY 2016, the agency will continue to work toward our commitment to environmental justice and protection of children's health. The EPA will continue to provide locally-based technical assistance and guidance by partnering with states and tribes on implementation of pesticide

²²⁶ See U.S. Environmental Protection Agency, Pesticides: Topical & Chemical Fact Sheets, Pesticide Registration Program Internet site: <http://www.epa.gov/pesticides/factsheets/registration.htm>.

²²⁷ See U.S. Environmental Protection Agency, Registration Review Internet site: http://www.epa.gov/oppsrrdl/registration_review/index.htm.

decisions. Technical assistance and outreach such as workshops, demonstration projects, briefings, and informational meetings will continue in areas including pesticide safety training and use of lower risk pesticides.

In keeping with the EPA’s priority of expanding the conversation on the environment, the agency will continue to engage the public, the scientific community, and other stakeholders in its policy development and implementation. This will encourage a reasonable transition for farmers and others from the older, potentially more hazardous pesticides, to the newer pesticides that have been registered using the latest available scientific information. To address the fiscal climate in FY 2016, the EPA will focus limited resources on core statutory activities, specifically those activities associated with registration and registration review.

To better leverage partner capacity, the EPA will continue to engage states, tribes, and the private sector, encouraging them to assume a bigger role in implementing regulatory decisions. The agency will continue support for implementation and enforcement of pesticide-specific rules and decisions. Additionally, the EPA will initiate efforts toward establishing a self-monitoring and/or self-certification process and self-reporting requirements for components of its regulatory programs.

In FY 2016, the EPA will continue implementing improvements to the Pesticide Registration Information System (PRISM). Work on PRISM and other areas will include streamlining operations and merging compatible and related work areas in order to maximize resources through management efficiencies and direct reporting improvements. The focus of the project is to achieve paperwork burden reduction by converting paper-based processes into electronic processes for the Pesticide program’s regulated entities, creating a streamlined electronic workflow to support pesticide product registration and chemical review, and creating a centralized repository of regulatory decisions and scientific information. Overall, the project will streamline approximately 150 existing business processes.

Performance Targets:

Measure	(143) Percentage of agricultural acres treated with reduced-risk pesticides.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	20	21	21	22	22.5	22.5	22.5	22.5	Percent
Actual	21.5	21	22	22.5	Data Avail 10/2015	Data Avail 10/2015			

Measure	(012) Percent reduction of children's exposure to rodenticides.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			10	5	5	10	25	25	Percent
Actual			0	5	12	17			

Measure	(J11) Reduction in moderate to severe exposure incidents associated with organophosphates and carbamate insecticides in the general population.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				10	15	25	30	30	Percent
Actual				16	13	20			

In FY 2016, the EPA will continue the implementation of FIFRA, FFDCA, PRIA3, FQPA and ESA, fulfilling the agency's commitments to protect human health and the environment through our regulatory programs. In order to provide better accountability, the agency will track these areas through the measures indicated above.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,307.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$3,014.0 / -1.1 FTE) This net program change increases funding for Registration and Registration Review statutory activities and efforts to redesign core business processes to become more efficient.

Statutory Authority:

Pesticide Registration Improvement Extension Act of 2012 (known as PRIA3); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), Federal Food, Drug, and Cosmetic Act (FFDCA), §408 and 409, Food Quality Protection Act (FQPA); and Endangered Species Act (ESA).

Pesticides: Protect the Environment from Pesticide Risk

Program Area: Pesticides Licensing

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$36,085.1</i>	<i>\$35,470.0</i>	<i>\$39,805.0</i>	<i>\$4,335.0</i>
Science & Technology	\$1,960.5	\$2,316.0	\$3,896.0	\$1,580.0
Total Budget Authority / Obligations	\$38,045.6	\$37,786.0	\$43,701.0	\$5,915.0
Total Workyears	303.1	261.9	261.8	-0.1

Program Project Description:

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requires the EPA to register a pesticide if, among other things, when used in accordance with labeling and common practices, the product “will not generally cause unreasonable adverse effects on the environment.” The goal of this program is to protect the environment from the potential risks posed by pesticide use. The EPA must conduct risk assessments before the initial registration of each pesticide for each use, as well as re-evaluate each pesticide at least every 15 years, as required by the Food Quality Protection Act (FQPA). This periodic review is accomplished through the EPA’s Pesticide Registration Review program.

In addition to FIFRA responsibilities, the agency has obligations under the Endangered Species Act (ESA)²²⁸. This includes ensuring that pesticide regulatory decisions will not destroy or adversely modify designated critical habitat or jeopardize the continued existence of species listed as threatened or endangered by the U.S. Fish and Wildlife Service (FWS) or National Marine Fisheries Service (NMFS) (jointly the Services).

Assessing the Risks Pesticides Pose to the Environment

To accomplish the goals set out in the statutes, the EPA conducts ecological risk assessments²²⁹ to determine what risks are posed by each pesticide to plants, animals, and ecosystems that are not the targets of the pesticide and whether changes are necessary to protect the environment. The EPA has extensive authority to require the submission of data to support its scientific decisions and uses the latest scientific methods to conduct these ecological risk assessments. The agency requires applicants for pesticide registration to conduct and submit a wide range of environmental laboratory and field studies. These studies examine the ecological effects or toxicity of a pesticide and its breakdown products on various terrestrial and aquatic animals and plants, and the chemical fate and transport of the pesticide (how it behaves and where it goes in soil, air, and water resources). The EPA uses these and other data to prepare an environmental fate assessment and a hazard, or ecological effects, assessment that interprets the relevant

²²⁸ <http://www.fws.gov/endangered/laws-policies/section-7.html>

²²⁹ <http://www.epa.gov/pesticides/ecosystem/ecorisk.htm>

toxicity information for the pesticide and its degradation products. Using environmental fate data and exposure models, EPA scientists estimate exposure of different animals and plants to pesticide residues in the environment. Finally, these scientists integrate the toxicity information with the exposure data to determine the ecological risk from the use of the pesticide, or whether it is safe for the environment and wildlife. These processes are described more fully below.

Assessing Toxicity to Wildlife and Plants

Toxicology studies are carried out on plants and animals that have been chosen for testing because they broadly represent non-target organisms (living things the pesticide is not intended to kill or otherwise control). Animals and plants are exposed to different amounts of a pesticide to determine short- and long-term responses to varying concentrations. Some of the impacts on animals the EPA evaluates are the short- and long-term effects of varying amounts of pesticide exposure to insects and other invertebrates, fish and birds. For plants, EPA scientists assess how poisonous a pesticide is to plants, how the pesticide affects a seed's ability to germinate and emerge, as well as how healthy and vigorous the plant grows to be. Toxicological testing and scientific measurements are conducted under strict guidelines and approved methods.²³⁰ Exacting standards are necessary for consistency in evaluations of pesticide safety and for comparisons among chemicals.

Determining the Environmental Fate of a Pesticide

After determining the toxicity of a pesticide, it is important to find out what happens to it in the environment after it has been applied, and therefore, how it might affect the environment. Required studies measure the interaction of pesticides with soils, air, sunlight, surface water and ground water. Some of the basic questions that must be answered in these studies are: (1) How fast and by what means does the pesticide degrade? (2) What are the breakdown chemicals? (3) How much of the pesticide or its breakdown chemicals will travel from the application site, and where will they accumulate in the environment? These tests include how the pesticide breaks down in water, soil, and light, how easily it evaporates in air and how quickly it travels through soil. The EPA uses these tests to develop estimates of pesticide concentrations in the environment. EPA scientists also evaluate the role of the drift of spray and dust from pesticide applications on pesticide residues that can cause health and environmental effects and property damage.

Putting the Pieces Together

To evaluate a pesticide's environmental risks, the EPA examines all of the toxicity and environmental fate data together to determine what risks its use may pose to the environment. The process of comparing toxicity information and the amount of the pesticide a given organism may be exposed to in the environment is called risk assessment. A pesticide can be toxic at one exposure level, and have little or no effect at another. Thus, the risk assessor's job is to determine the relationship between possible exposure to a pesticide and the resulting harmful effects.

²³⁰ <http://www.epa.gov/raf/publications/guidelines-ecological-risk-assessment.htm>.

If the ecosystem will not be exposed to levels of a pesticide shown to cause problems, the EPA concludes that the pesticide is not likely to harm plants or wildlife. On the other hand, if the ecosystem exposure levels are suspected or known to produce problems, the program will then work to better understand and reduce the risks to acceptable levels. If the risk assessment indicates a high likelihood of hazard to wildlife, the program may require additional testing, require that the pesticide be applied only by specially-trained people (restricted use), or decide not to allow its use. In addition, the EPA may require monitoring of environmental conditions, such as effects on water sources, or may require additional data from the registrant. Decisions on risk reduction measures are based on a consideration of both pesticide risks and benefits.

The agency reviews all data to make sure they were developed according to standard practices within the discipline and the EPA's test guidelines. Risk assessments are peer reviewed, and regulatory decisions are posted on the Internet for review and comment to ensure that these actions are transparent and stakeholders are engaged in decisions that affect their environment. When complex scientific issues arise, the agency consults the FIFRA Scientific Advisory Panel (<http://www.epa.gov/scipoly/sap/>) for independent scientific advice.

Risk Mitigation

To ensure unreasonable risks are avoided, the EPA may impose risk mitigation measures such as modifying use rates or application methods, restricting uses, or denying uses. In some regulatory decisions, the EPA may determine that uncertainties in the risk determination need to be reduced and may subsequently require monitoring of environmental conditions, such as effects on water sources or the development and submission of additional laboratory or field study data by the pesticide registrant.

The EPA's Pesticide program has been actively engaged in a number of initiatives to help prevent problems related to the drift of spray and dust from pesticide applications. These initiatives include: broadening the understanding of the science and predictability of pesticide drift based on many new studies; improving the clarity and enforceability of product label use directions and drift restrictions; facilitating the use of drift-reducing application technologies and best management practices to minimize drift; and promoting applicator education and training programs.

Ensuring Proper Pesticide Use through Labeling

Under FIFRA, it is illegal to use a registered pesticide in a manner inconsistent with the label instructions and precautions. The EPA uses pesticide labels to indicate what uses are appropriate and to ensure that the pesticide is used at the application rates and according to the methods and timing approved as a condition of registration. When the EPA registers a pesticide product, it requires specific labeling instructions and precautions. When risks are identified during the initial registration or during registration review, the agency may mitigate those risks by requiring label changes. For example, the EPA may require buffer zones around water sources to prevent contamination of water or endangering aquatic plants and wildlife. Other examples are changing the application method, or rate or timing of applications when pollinators are not present to prevent risks to pollinators such as bees.

Reducing Risk Through the Use of Safer Pesticides and Methods

To further protect the environment, this program²³¹ emphasizes the use of reduced risk methods of pest control, including the use of reduced risk pesticides and helping growers and other pesticide users learn about new, safer products and methods of using pesticides. The EPA began promoting reduced risk pesticides in 1993 by giving registration priority to pesticides that have lower toxicity to people and non-target organisms such as birds, fish, and plants; low potential for contaminating groundwater; lower use rates; low pest resistance potential; and compatibility with Integrated Pest Management (<http://www.epa.gov/pesticides/ipm/>). Biological pesticides and biotechnology often represent lower risk solutions to pest problems.

Protecting Endangered Species

As noted above, the EPA is responsible for complying with the ESA. Given approximately 1,200 active ingredients in more than 17,000 products – many of which have multiple uses – and approximately 1,200 listed species with diverse biological attributes, habitat requirements, and geographic range, this presents a great challenge. As part of the EPA's determination whether a pesticide product may be registered for a particular use, the agency assesses whether listed endangered or threatened species or their designated critical habitat may be affected by use of the product. Where risks are identified, the EPA must work with the FWS and the NMFS in a consultation process to ensure these new or existing pesticide registrations will meet the ESA standard. The EPA's Endangered Species Protection Program (ESPP) helps promote the recovery of listed species by determining whether pesticide use in a certain geographic area may affect any listed species. If limitations on pesticide use are necessary to protect listed species in that area, the information is related through Endangered Species Protection Bulletins. The goal of this program is to carry out our responsibilities under FIFRA in compliance with the ESA, without placing unnecessary burdens on agriculture and other pesticide users.

Minimizing Environmental Impacts through Outreach and Education

Through public outreach, the agency continues to encourage the use of Integrated Pest Management (IPM) and other practices to maximize the benefits pesticides can yield while minimizing the impacts on the environment. The agency continues these efforts, including development and dissemination of brochures, education on potential benefits of IPM, and outreach on the successes of IPM to encourage its use.²³² To encourage responsible pesticide use that does not endanger the environment, the EPA reaches out to the public through the Internet and to workers and professional pesticide applicators through worker training programs.

FY 2016 Activities and Performance Plan:

While review of pesticides currently in the marketplace, and implementation of decisions made as a result of these reviews, are a necessary aspect of meeting the EPA's goals, they are not sufficient. Attaining risk reduction would be significantly hampered without availability of alternative products to these pesticides for consumers. Consequently, the success of the

²³¹ Reducing Pesticide Risk (<http://www.epa.gov/pesticides/health/reducing.htm>).

²³² <http://www.epa.gov/pesticides/ipminschoools/implementation.html>.

Registration program in ensuring the availability of effective alternative products plays a significant role in meeting the environmental outcome of improved ecosystem protection. The EPA will continue to assist pesticide users in learning about new, safer products and methods of using existing products. The agency will continue encouraging the use of IPM tools.

The agency will continue to carry out its statutory mandates for pesticide registration review to ensure that pesticides already in the marketplace meet the latest safety standards by conducting risk assessments and issuing regulatory decisions to mitigate risk to the environment. Additionally, during registration review, the EPA will support obtaining risk mitigation earlier in the process by encouraging registrants to agree to changes in uses and applications of a pesticide beneficial to the protection of endangered species prior to completion of the EPA's consultations with FWS and NMFS. The EPA has a performance measure that tracks this work: PM276 – Percent of registration review chemicals with identified endangered species concerns, for which EPA obtains any mitigation of risk prior to consultation with the U.S. FWS and NMFS (jointly the Services).

Protection of Endangered Species

Under the ESA, federal agencies must ensure that the “actions” they authorize will not result in jeopardy to species listed as endangered or threatened by the Services, or adversely modify designated critical habitat. The EPA authorizes the sale, distribution, and use of pesticides according to the product labeling. The EPA is implementing the ESA through registration review. In FY 2016, pesticide registration reviews are expected to require comprehensive environmental assessments, including determining potential endangered species impacts. This effort will continue to expand the office's workload due to the necessity of issuing data call-ins and conducting additional environmental assessments for pesticides already in the review pipeline.

In FY 2016, in cooperation with the Services and the United States Department of Agriculture (USDA), the agency will continue to work toward improving compliance with the ESA. To this end, the agency continues to consider recommendations from the committee of the National Academy of Sciences (NAS) National Research Council regarding scientific and technical issues related to the methods and assumptions used by the EPA, and the services to carry out their joint responsibilities under the ESA and FIFRA. The four agencies jointly asked the NAS to identify approaches to: collect the best available scientific data and information; consider sub-lethal, indirect and cumulative effects; assess the effects of chemical mixtures and inert ingredients; use models to assist in analyzing the effects of pesticide use; effectively incorporate uncertainties into the evaluations; and use geospatial information and datasets in the course of these assessments. Since receiving the NAS report, the agencies have developed shared scientific approaches and presented those approaches to stakeholders at a virtual nationwide meeting. During FY 2016, the EPA and the Services will jointly apply these approaches to some pesticide risk assessments and, if necessary, to consultations. These initial assessments will apply and improve the shared scientific approaches.

The EPA and the Services have worked for decades to reach agreement on the scientific methods to assess the risk of pesticides to listed species. After failing to reach agreement through

interagency efforts, the EPA, the Services and the USDA initiated an NAS review in 2011 to address the most critical risk assessment methodology issues confounding the ESA consultation process. The NAS report recommendations were released in April 2013, and interagency interim scientific approaches (<http://www.epa.gov/espp/2013/interagency.pdf>) were developed collaboratively between the agencies and released in November 2013 during a one-day public meeting. At a second stakeholder meeting in April 2014, industry and NGOs provided evaluation of and comments to the interim scientific approaches. The EPA and the Services have also been working collaboratively to resolve litigation brought against the EPA for failure to consult and against the Services for failure to complete consultation. The settlement agreements will give the EPA and the Services an opportunity to pilot and implement recommendations from the 2013 NAS report with identified milestones and timelines for completing work products.

The EPA also will continue to impose use limitations through appropriate label statements, referring pesticide users to EPA-developed Endangered Species Protection Bulletins, which are available on the Internet via *Bulletins Live!*²³³ These bulletins will, as appropriate, contain maps of pesticide use limitation areas necessary to ensure protection of listed species and compliance with the ESA. Any such limitations on a pesticide's use will be enforceable under the misuse provisions of FIFRA. Bulletins are a critical mechanism for ensuring protection of listed species from pesticide applications while minimizing the burden on agriculture and other pesticide users by limiting pesticide use in the smallest geographic area necessary to protect the species. In FY 2016, the EPA will continue revising and updating *Bulletins Live!* to provide a more interactive and more geographically discrete platform for pesticide users to understand the use limitations necessary to protect endangered or threatened species.

The agency will continue to provide technical support for compliance with the requirements of the ESA. In FY 2016, the EPA will continue the integration of state-of-the-science models, knowledge bases, and analytic processes to increase productivity and better address the challenge of potential risks of specific pesticides to specific species. Interconnection of the various databases within the program office will provide improved support to the risk assessment process during registration review by allowing risk assessors to more easily analyze complex scenarios relative to endangered species.

Pollinator Protection

Bees play a critical role in ensuring continued production of food. The USDA is leading the federal government's effort to understand the causes of declining pollinator health and identify actions that will improve pollinator health. The EPA is part of this effort and is focusing on the potential role of pesticides. The EPA's emphasis is to ensure that the pesticides used represent acceptable risks to pollinators and that products are available for commercial bee keepers to manage pests that impact pollinator health. The EPA is working with pesticide registrants to change pesticide labels to reduce acute exposure and ensure that pollinators are protected.

The EPA is jointly implementing, with Canada and the California Department of Pesticide Regulation, a new pollinator risk assessment framework to ensure that pesticides being considered for registration do not endanger honey bees. In June 2014, President Obama issued a

²³³ <http://www.epa.gov/espp/bulletins.htm>.

presidential memorandum directing federal agencies to develop a strategy to promote the health of honey bees and other pollinators. Co-chaired by the EPA and the USDA, a pollinator health task force has been established to develop this strategy, which will include a pollinator research action plan, a public education plan, and public-private partnerships. A major focus of the strategy will be to increase and improve pollinator habitat. As a part of this strategy, the EPA will assess the effects of pesticides, including neonicotinoids, on bee and other pollinator health and take action as appropriate to protect pollinators, engage State and Tribal agencies in the development of pollinator protection plans, and expedite review of registration applications for new products targeting pests harmful to pollinators. The EPA will also work with seed companies to develop and implement strategies to reduce the release of pesticide residues during the planting process of treated seed.

Other efforts include working with stakeholders to identify and consolidate Best Management Practices (BMPs) for honey bee health and developing a web page of these BMPs with cooperation from the National Integrated Pest Management Centers and the USDA. The EPA also is providing funds to land grant universities to conduct research on alternative pest control methods and BMPs that lower risks to bees while effectively controlling pests.

In addition, in FY 2014 the EPA implemented changes to pesticide labels for four neonicotinoid insecticides to limit applications to protect bees, as well as provide users of these products with more precise safety information about bees. This work involved improving and clarifying the pollinator protection requirements for 240 approved pesticide labels. These changes were made to the pesticide labels for the chemicals imidacloprid, thiamethoxam, clothianidin, and dinotefuran. In FY 2016, the EPA will continue to implement the new pollinator protection labeling for outdoor foliar products that are acutely toxic to bees.²³⁴

Protection of Water Resources

Reduced concentrations of pesticides in water sources are an indication of the efficacy of the EPA's risk assessment, management, mitigation, and communication activities. Using sampling data collected under the U.S. Geological Survey (USGS) National Water Quality Assessment (NWQA) program for urban watersheds, the EPA will continue to monitor the impact of our regulatory decisions for three priority chemicals – diazinon, chlorpyrifos, and carbaryl. In agricultural watersheds, the program will monitor the impact of our regulatory decisions on azinphos-methyl and chlorpyrifos and consider whether any additional action is necessary.²³⁵ In FY 2016, the agency will continue to work with USGS to develop sampling plans and refine program goals. Water quality is a critical endpoint for measuring exposure and risk to the environment. It is a high level measure of the EPA's ability to reduce exposure from these key pesticides of concern.

To measure program effectiveness, the EPA tracks reductions of concentrations of these four organophosphate insecticides that most consistently exceeded the EPA's aquatic life benchmarks

²³⁴ For additional information on EPA's role in pollinator protection see: <http://www2.epa.gov/pollinator-protection/epa-actions-protect-pollinators> and <http://www2.epa.gov/pollinator-protection/new-labeling-neonicotinoid-pesticides>.

²³⁵ Gilliom, R.J., et al. 2006. *The Quality of Our Nation's Waters: Pesticides in the Nation's Streams and Ground Water, 1992–2001*. Reston, Virginia: U.S. Geological Survey Circular 1291, p 171. Available on the Internet at: <http://pubs.usgs.gov/circ/2005/1291/>.

for aquatic ecosystems²³⁶ during the last ten years of monitoring by the USGS NWQA program. Registration review decisions and implementation of associated Reregistration Eligibility Decisions for these four compounds are expected to result in lower use rates and the elimination of certain uses, which will directly contribute to reduced concentrations of these materials in the nation's waters.

Performance Targets:

Measure	(011) Number of Product Reregistration Decisions								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	2,000	1,500	1,500	1,200	1,200	900	600	550	Decisions
Actual	1,482	1,712	1,218	1,255	709	292			

Measure	(091) Percent of decisions completed on time (on or before PRIA or negotiated due date).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target		99	99	99	99	97.0	96	96	Percent
Actual		99.7	98.4	99.1	98.8	85			

Measure	(164) Number of pesticide registration review dockets opened.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target		70	70	70	72	73	73	66	Dockets
Actual		75	81	79	77	75			

Measure	(230) Number of pesticide registration review final work plans completed.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target		70	70	70	72	73	73	75	Work Plans
Actual		70	75	70	79	81			

Measure	(276) Percent of registration review chemicals with identified endangered species concerns, for which EPA obtains any mitigation of risk prior to consultation with DOC and DOI.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				5	5	15	5	5	Percent
Actual				0	0	0			

Measure	(268) Percent of urban watersheds that do not exceed EPA aquatic life benchmarks for three key pesticides of concern (diazinon, chlorpyrifos and carbaryl).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	No Target Established	5, 0, 20	No Target Established	5, 0, 10	No Target Established	0, 0, 0	No Target Established	0, 0, 0	Percent
Actual	Biennial	6.7, 0, 33	Biennial	0, 0, 9	Biennial	7, 0, 0			

Measure	(269) Percent of agricultural watersheds that do not exceed EPA aquatic life benchmarks for two key pesticides of concern (azinphos-methyl and chlorpyrifos).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target		0, 10	No Target Established	0, 10	No Target Established	0, 0	No Target Established	0, 0	Percent
Actual		0, 8	Biennial	7, 7	Biennial	0, 0			

²³⁶ http://www.epa.gov/oppefed1/ecorisk_ders/aquatic_life_benchmark.htm.

In FY 2016, the EPA will continue the implementation of FIFRA, FFDCA, ESA, and the Pesticide Registration Improvement Extension Act of 2012 (PRIA3)²³⁷ in the exercise of the agency's responsibilities for the registration and review activities. As part of the EPA's efforts to improve accountability, the agency will track progress in these areas through the measures above.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,163.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$3,172.0 / -0.1 FTE) This net program change supports Registration and Registration Review statutory activities and efforts to redesign core business processes to become more efficient.

Statutory Authority:

Pesticide Registration Improvement Extension Act of 2012 (PRIA3); Endangered Species Act (ESA); Federal Insecticide, Fungicide and Rodenticide Act (FIFRA); Food Quality Protection Act (FQPA); Federal Food, Drug, and Cosmetic Act (FFDCA).

²³⁷ <http://www.gpo.gov/fdsys/pkg/PLAW-112publ177.pdf>

Pesticides: Realize the Value of Pesticide Availability

Program Area: Pesticides Licensing

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$10,175.5	\$9,795.0	\$10,409.0	\$614.0
Science & Technology	\$517.2	\$514.0	\$529.0	\$15.0
Total Budget Authority / Obligations	\$10,692.7	\$10,309.0	\$10,938.0	\$629.0
Total Workyears	69.1	69.5	69.5	0.0

Program Project Description:

The primary federal law that governs how the EPA oversees pesticide manufacture and use in the United States is the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Originally enacted in 1947, this law has been significantly amended several times, most recently by the Food Quality Protection Act of 1996 (FQPA) and the Pesticide Registration Improvement Extension Act of 2012 (PRIA3). FIFRA requires that the EPA register pesticides based on a finding that they will not cause unreasonable adverse effects on people and the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide. Each time the law has been amended, while Congress has strengthened the safety standards of the act, it continues to recognize the benefits of pesticides.

This program seeks to realize the value of pesticides that can be used safely to generate the nation’s abundant and wholesome food supply, to protect the public from disease-carrying pests, to protect our environment from the introduction of invasive species from other parts of the world, to kill viruses and bacteria in America’s hospitals, and to protect the nation’s homes from invasive insects, rodents, molds, and other unwelcome guests.

Addressing Special Local Needs

FIFRA Section 24(c), and the EPA’s implementing regulations provide states with the authority to issue their own state-specific registrations under certain conditions, while the EPA is responsible for overseeing the general program. States may register a new end use product or an additional use of a federally registered pesticide product if the following conditions exist:

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| <ul style="list-style-type: none"> • A Special Local Need – an existing or imminent pest problem within a state for which the state lead agency, based on satisfactory supporting information, has determined that an appropriate federally registered pesticide product is not sufficiently available. • The additional use is covered by any necessary tolerances (maximum legal residue levels) or other clearances under the Federal Food, Drug, and Cosmetic Act (FFDCA). • Registration for the same use has not previously been denied, disapproved, suspended, or canceled by the EPA or voluntarily canceled by the registrant subsequent to issuance |
|---|

- | |
|---|
| <p>of a notice of intent to cancel because of health or environmental concerns.</p> <ul style="list-style-type: none">• Registration is in accord with the purposes of FIFRA. |
|---|

These 24(c) registrations become federal registrations within 90 days unless the EPA objects to them. The EPA's role is to ensure that each 24(c) registration meets the requirements of FIFRA.²³⁸

Emergency, Quarantine, and Crisis Exemptions

FIFRA Section 18, and the EPA's implementing regulations, authorizes the EPA, in the event of an emergency, such as a severe pest infestation, to allow an unregistered use of a pesticide for a limited time if the EPA determines that emergency conditions exist which require such an exemption.²³⁹

An "Emergency Condition" is an urgent, non-routine situation that requires the use of a pesticide(s). Emergency exemptions may be requested by any state or federal agency, but typically come from state lead agricultural agencies. The EPA must also establish any necessary tolerances to cover pesticide residues in food, if applicable. Tolerances established for emergency exemption uses are time-limited, corresponding to the time that commodities treated under the exemption might be found in channels of trade.

A second type of emergency exemption is allowed for "public health" emergencies. A state or federal agency may request a public health emergency exemption to control a pest that will cause a significant risk to human health.

The third type of exemption, the "Quarantine" exemption, is allowed to control the introduction or spread of an invasive pest species not previously known to occur in the United States and its territories.

Finally, when the emergency is so immediate that there is not enough time to go through the normal review for an exemption and there is an immediate need, following communication with and clearance by the EPA, a state or federal agency may issue a "crisis exemption" allowing the unregistered use to proceed for up to 15 days. During the consultation before the state or federal agency declares a crisis, the EPA performs a review to determine whether there are any apparent concerns, and whether the appropriate safety findings required by FIFRA likely may be made. If the EPA identifies concerns, the crisis exemption may not be allowed unless those concerns can be resolved.

Meeting Agriculture's Need for Safe, Effective Pest Control Products

With the passage of FQPA, Congress acknowledged the importance of and need for "reduced-risk pesticides" and supported expedited agency review to help these pesticides reach the market sooner and replace older and potentially riskier chemicals. The law defines a reduced risk pesticide as one that "may reasonably be expected to accomplish one or more of the following: (1) reduces pesticide risks to human health; (2) reduces pesticide risks to non-target organisms;

²³⁸ <http://www.epa.gov/opprd001/24c/>

²³⁹ <http://www.epa.gov/opprd001/section18/>

(3) reduces the potential for contamination of valued, environmental resources, or (4) broadens adoption of Integrated Pest Management (IPM)²⁴⁰ or makes it more effective.” The EPA developed procedures and guidelines for expedited review of applications for registration or amendments for a reduced risk pesticide. The agency expanded the reduced risk pesticide program to include consideration of new active ingredients, new uses of active ingredients already deemed to be reduced risk, and amendments to all uses deemed to be reduced risk. The EPA gives priority to review of reduced risk pesticides and works with the regulated community and user groups to refine review and registration procedures.

FIFRA’s Version of “Generic” Pesticides

FIFRA also authorizes the EPA to register products that are identical to or substantially similar to already registered products (known as “me too” products). Applicants for these substantially similar products may rely on, or “cite” (and offer to pay a fair share for) data already submitted by another registrant. The entry of these new products into the market can cause price reductions resulting from new competition and broader access to products. These price declines generate competition that benefits farmers and other consumers.

“Minor Crops” – Addressing Growers’ Need for Pest Control

The FQPA amendments also made special provisions for minor uses of pesticides. Minor uses of pesticides are defined as uses for which pesticide product sales do not provide sufficient economic incentive to justify the costs of developing and maintaining its registrations with the EPA. “Minor” crops include many fruits and vegetables. Minor uses also include use on commercially grown flowers, trees and shrubs, certain applications to major crops such as wheat or corn where the pest problem is not widespread, and many public health applications²⁴¹.

Some minor uses have been lost through lack of registrant support during the reregistration process, resulting in grower concerns that adequate pest control tools will no longer be available for many minor crops. The agency works closely with the USDA’s Inter-Regional Research Project No. 4 (IR-4)²⁴² to generate residue data for tolerances on minor crops in order to minimize the burden of data generation for minor uses. The EPA and the USDA operate early alert systems to notify growers when a pesticide use for a minor crop is about to be canceled. The EPA also provides advance public notice of a proposed cancellation to allow time for another registrant to consider maintaining the pesticide use.

Meeting the Need for Non-agricultural Pesticides

Farmers are not the only ones who need pesticides. Pest control is also needed in our homes, schools, and workplaces. Pesticides control pests that spread disease like West Nile Virus, malaria and rabies, to name a few. They disinfect our swimming pools and sanitize bathrooms; they combat mold and are essential to sterilize surfaces in hospitals and other health care facilities.

²⁴⁰ <http://www.epa.gov/pesticides/factsheets/ipm.htm>).

²⁴¹ http://www.epa.gov/pesticides/regulating/laws/fqpa/fqpa_accomplishments.htm.

²⁴² http://www.csrees.usda.gov/nea/pest/in_focus/pesticides_if_minor.html).

Outreach and Education

The agency will continue to encourage (IPM) efforts, which emphasize minimizing the use of broad spectrum chemicals and on maximizing the use of sanitation, biological controls, and selective methods of application, and it relies on pesticide users being well-informed about the pest control options available and how to best use them. It is not enough to have pesticide products registered to control pest infestations. Pesticide users need to know which pesticides to use, how to use them, and how to maintain the site, so pests do not return. The Pesticide Program is invested in outreach and training efforts for people who use pesticides and the public in general.

FY 2016 Activities and Performance Plan:

The EPA's statutory and regulatory functions for the pesticide program include registration, product reregistration, registration review, risk reduction, rulemaking, and program management. During FY 2016, the EPA will review and register new pesticides, new uses for existing pesticides, and act on other registration requests in accordance with FIFRA and FFDCA standards as well as PRIA3 timeframes. Many of these actions will be for reduced-risk pesticides, which, once registered and used by consumers, will increase benefits to society. Working together with the affected user communities, through IPM and related activities, the agency plans to accelerate the adoption of these lower-risk products.

The EPA will continue to support implementation of other IPM-related activities. The agency will engage partners in the development of tools and informational brochures to promote IPM efforts and to provide guidance to schools, farmers, other partners, and stakeholders.

Similarly, the agency will continue its work-sharing efforts with its international partners. Through these collaborative activities and resulting international registrations, international trade barriers will be reduced; enabling domestic users to more readily adopt these newer pesticides into their crop protection programs and reduce the costs of registration through work sharing.

The Section 18 Program provides exemptions to growers for use of pesticides that are not registered for their crops during emergency situations. In FY 2016, the EPA will continue to process incoming requests for emergency exemptions. The agency is tracking responsiveness to emergency situations through a performance measure with the goal of reaching a decision within 45 days of the submission. The economic benefit of the Section 18 Program to growers is the avoidance of potential losses incurred in the absence of pesticides exempted under FIFRA's emergency exemption provisions.

Performance Targets:

Measure	(240) Maintain timeliness of Section 18 Emergency Exemption Decisions								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	45	45	45	45	45	45	45	45	Days
Actual	40	50	52	43	27	44			

Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$339.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$275.0) These program resources will support Registration and Registration Review statutory activities and efforts to redesign core business processes to become more efficient.

Statutory Authority:

Pesticide Registration Improvement Extension Act of 2012 (PRIA 3); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended; Federal Food, Drug, and Cosmetic Act (FFDCA) as amended, §408 and 409; Food Quality Protection Act (FQPA); and Endangered Species Act (ESA).

Science Policy and Biotechnology

Program Area: Pesticides Licensing

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$1,532.7</i>	<i>\$1,400.0</i>	<i>\$1,532.0</i>	<i>\$132.0</i>
Total Budget Authority / Obligations	\$1,532.7	\$1,400.0	\$1,532.0	\$132.0
Total Workyears	7.1	5.4	5.4	0.0

Program Project Description:

The Science Policy and Biotechnology program provides scientific and policy expertise, coordinates the EPA’s intra-agency and interagency efforts, and facilitates information-sharing related to core science policy issues concerning pesticides and toxic chemicals. Many offices within the EPA regularly address cutting edge scientific issues including endocrine disruptors and products of biotechnology. Coordination among affected offices allows for coherent and consistent scientific policy from a broad agency perspective. In addition, the Science Policy and Biotechnology program provides for independent, external scientific peer review through the Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel (FIFRA SAP), a federal advisory committee.

FY 2016 Activities and Performance Plan:

The Science Policy and Biotechnology program continues a peer review role, as needed, to evaluate the scientific and technical issues associated with chemical safety and biotechnology, including plant incorporated protectants (PIPs). In addition, other biotechnology issues will be supported by the program when complex decisions require expert scientific advice from an independent scientific peer review panel or guidance is needed to support science policy.

The FIFRA SAP, operating under the rules and regulations of the Federal Advisory Committee Act, will continue to serve as the primary external independent scientific peer review mechanism for the EPA’s pesticide programs. As the nation’s primary pesticide regulatory agency, the EPA makes decisions on a wide-range of pesticide uses in the U.S. These decisions require that the EPA review scientific data on risks that pesticides pose to wildlife, farm workers, pesticide applicators, sensitive populations, and the general public. The scientific data involved in these decisions are complex, which requires the EPA to seek technical advice from the FIFRA SAP. Scientific peer review is a critical component of the EPA’s use of the best available science.

The FIFRA SAP typically conducts six reviews each year on a variety of scientific topics including endocrine disruptors and products of biotechnology. In FY 2014, OSCP convened three FIFRA SAP scientific reviews. Specific topics to be placed on the SAP agenda are usually

confirmed a few months in advance of each session and include difficult, new, or controversial scientific issues identified in the course of the EPA's Pesticide program activities.

In addition to the FIFRA SAP scientific review activities, the Office of Science Coordination and Policy (OSCP) is establishing a federal advisory committee dedicated to Office of Pollution Prevention and Toxics (OPPT) activities. The federal advisory committee will provide independent, expert scientific advice and recommendations to the EPA on OPPT chemical assessments, methodologies, and other complex pollution prevention measures or approaches.

Performance Targets:

Currently, there are no specific performance measures for the Science Policy and Biotechnology program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$30.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$102.0) This program increase will allow for two additional meetings of the FIFRA SAP, the primary external independent scientific peer review mechanism for the EPA's pesticide and toxic chemical programs.

Statutory Authority:

Federal Insecticide Fungicide and Rodenticide Act (FIFRA) 7 U.S.C.136(a),136(c),136(e),136(f),136(g),136(j),136(o),136w(a)(b)(d)(e); Toxic Substances Control Act (TSCA) 15 U.S.C. 2604h (5) (A), 2607b; Federal Food, Drug and Cosmetics Act (FFDCA) 21 U.S.C. 346a, 371; Federal Advisory Committee Act (FACA) 5a U.S.C. 9,10,11,12 & 14.

Program Area: Resource Conservation and Recovery Act (RCRA)

RCRA: Waste Management

Program Area: Resource Conservation and Recovery Act (RCRA)
Goal: Cleaning Up Communities and Advancing Sustainable Development
Objective(s): Preserve Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Hazardous Waste Electronic Manifest System Fund	\$2,626.5	\$3,674.0	\$7,368.0	\$3,694.0
<i>Environmental Program & Management</i>	<i>\$58,104.9</i>	<i>\$59,958.0</i>	<i>\$63,413.0</i>	<i>\$3,455.0</i>
Total Budget Authority / Obligations	\$60,731.4	\$63,632.0	\$70,781.0	\$7,149.0
Total Workyears	334.8	342.0	332.7	-9.3

Program Project Description:

The EPA's Waste Management program implements the Resource Conservation and Recovery Act (RCRA) to develop and implement the national standards that prevent exposure to contaminants from wastes generated by industrial processes and consumers alike. The program safeguards communities and the environment while facilitating commerce by supporting an effective waste management infrastructure. Cradle-to-grave hazardous waste management regulations ensure safe management practices through the entire process of generation, transportation, recycling, treatment, storage and final disposal. The program has increased the capacity for proper materials management in states and tribes by providing grant funding and technical support. The program oversees 60,000 facilities that generate and safely manage hazardous waste in the US.²⁴³ Eighty percent of the US population lives within 3 miles of one of these facilities.²⁴⁴

Additionally, the Toxic Substances Control Act (TSCA) polychlorinated biphenyl (PCB) cleanup and disposal program is implemented under the Waste Management program to reduce PCB exposure from improper disposal, storage, and spills. The Waste Management program reviews and approves PCB cleanup, storage, and disposal activities (this federal authority is not delegated to state programs).

The Waste Management program also complements the work of the EPA's air and water programs by ensuring that the management of hazardous waste generated by air pollution control devices and wastewater treatment systems are protectively and permanently addressed. The RCRA program facilitates the safe management of waste, providing a critical service to the U.S. economy, and in so doing provides jobs to those directly involved in the waste management sector.

²⁴³ Memorandum, February 18, 2014, from Industrial Economics to EPA, Re: Analysis to Support Assessment of Economic Impacts and Benefits under RCRA Programs: Key Scoping Assessment, Initial Findings and Summary of Available Data (Section 1), pages 5-11.

²⁴⁴ U.S. EPA, Office of Solid Waste and Emergency Response Estimate. 2014. Data collected includes: (1) site information as of the end of FY 2011 from RCRAInfo; and (2) census data from the 2007-2011 American Community Survey.

FY 2016 Activities and Performance Plan:

The Waste Management program will focus on the following in FY 2016:

Supporting Implementation of RCRA

- Reviewing and approving PCB cleanup, storage, and disposal activities to reduce exposures, particularly in sensitive areas like schools and other public spaces.
- Providing technical and implementation assistance and oversight in the areas of permit modifications and post-closure care. The EPA and states are modifying permits to respond to companies' changing economic and environmental conditions which can result in reduced risk of exposure, business expansion, and job growth. The EPA and states are ensuring post-closure protections are assessed and maintained where appropriate, to protect communities from potential risks.
- Providing grants and technical waste management assistance to tribes to increase sustainable practices and protect these communities from exposure to toxins from solid and hazardous waste.²⁴⁵ This revived grant program, which is discussed below, is a \$3 million investment for FY 2016.
- Providing technical expertise for waste management in natural or man-made disasters. In the event of a disaster, the EPA will provide support to ensure protective means of waste management and disposal by working with states, local government, and other response agencies. This will include proper identification of hazardous wastes and assistance in the proper use of methods.
- Working with other EPA offices, states, other federal agencies, and stakeholders on waste management issues associated with unconventional oil and gas production, such as hydraulic fracturing, and other large volume special wastes. This effort will provide assistance to state waste management programs to identify and find safe means for handling these types of waste.
- Educating the public about recycling and solid waste reduction through environmental education and training activities.

Modernizing the RCRA Program

- Implementing the new Definition of Solid Waste rule to encourage environmentally-sound hazardous waste recycling. The EPA anticipates this will increase the amount of hazardous waste recycled in the US, providing new jobs in this industry, and protective practices which will reduce our need for raw materials.

²⁴⁵ Of the 574 federally recognized tribes, as of April 2014, 182 have an integrated waste management plan.

- Identifying non-hazardous secondary materials that are solid waste, providing technical support to the regulated community through determinations about scope applicability.
- Implementing regulations to ensure protective management of coal ash. In response to historic management practices, the agency has identified improved management and disposal practices to ensure people and ecosystems are protected. The EPA will work closely with states to review solid waste management plans to address coal ash management.
- Promulgating and implementing revisions to improve the management of pharmaceutical wastes. This rule will provide needed regulatory relief and create a more efficient system for the safe management of these wastes.
- Finalizing updates to the hazardous waste generator program. These updates will allow for improved, up-to-date, efficient changes for generators in response to stakeholder critiques.
- In addition, the program will focus staff resources to continue its work specific to the retail industry, which presents unique issues in regards to hazardous waste generator regulation. In response to EO 13563,²⁴⁶ “Retrospective Review of Regulations”, the EPA identified making the hazardous waste requirements for retail products more effective as one of the priority topics included in the “Improving Our Regulations: Final Plan for Periodic Retrospective Reviews of Existing Regulations.”²⁴⁷

To prevent future contamination and to protect the health of millions of Americans who live within one mile of a hazardous waste management facility, the EPA and its state partners issue, update, or maintain RCRA permits for approximately 20,000 hazardous waste units (e.g., incinerators, landfills, and tanks) at 6,600 treatment, storage and disposal facilities in the permitting universe. The EPA directly implements the entire RCRA program in Iowa and Alaska and provides leadership, worksharing and support to the states and territories authorized to implement the permitting program. To ensure controls remain current and protective, the EPA will work with states to meet the FY 2016 target of implementing permits (both initial approved controls and updated controls) at 115 RCRA hazardous waste management facilities.

The EPA continues to increase the amount of implementation support for states (e.g., addressing complex regulatory and statutory interpretation issues). The EPA will focus FY 2016 resources on two specific key program areas: permit modifications and post-closure.

Permit maintenance can require more agency resources over the life of the permit than initial permit issuance or renewal. These permits are modified to support a facility’s changing economic and environmental needs (e.g., implementation of greener technologies; facilitating clean-up of newly discovered contamination). Permit modifications can promote economic growth and job creation while improving environmental protection.

²⁴⁶ For additional information, visit: <http://www.gpo.gov/fdsys/pkg/FR-2011-01-21/pdf/2011-1385.pdf>.

²⁴⁷ For additional information, visit: <http://www.epa.gov/regdarr/retrospective/documents/eparetroreviewplan-aug2011.pdf>.

Many facilities around the country are now approaching the end of the initial 30-year post-closure care period established in their RCRA permits or post-closure plans. Accordingly, the agency will work with states to address a number of policy and technical questions being raised by stakeholders. For example, the EPA will address questions such as: whether to adjust the length of a post-closure period; how is financial assurance addressed in an extended post-closure period; and how does post-closure relate to corrective action or long-term stewardship. In FY 2016, the EPA will continue to explore these issues, engaging with state partners to meet the need for guidance in this complicated area.

The agency maintains the national hazardous waste information system, RCRAInfo, which is critical for managing the overall RCRA program. FY 2016 resources will update the underlying technology that supports the RCRAInfo system so that system performance, reliability, and operational costs can be sustained into the future. In addition, RCRAInfo web-based data access capabilities and industry e-reporting functionality will be enhanced to improve data timeliness and provide better/more usable information to the public.

The National Tribal Caucus (NTC) FY 2016 Addendum on environmental resource needs and recommendations provided to the EPA requests that the EPA create a grant program for federally recognized tribes and Tribal consortia in Indian Country and Alaska for solid and hazardous waste management. In FY 2016 the EPA will provide financial assistance to underserved Tribal communities through an expanded grant program. Grants are needed to support tribes where improper solid waste disposal is posing threats to Tribal members' health through drinking water contamination and direct exposure to toxins and disease. This financial assistance will fund and support a wide variety of Tribal waste management program activities, including the development and implementation of integrated waste management plans (IWMPs), the implementation of sustainable practices such as recycling, source separation, and waste reduction programs, and the assessment and removal of uncontrolled waste disposal sites.²⁴⁸ We also anticipate that, as available, tribes may match these funds and use innovative approaches to remedy solid waste problems that can be shared with other tribes with similar issues. This program will significantly increase the EPA's ability to assist tribes in reducing and safely managing their solid waste. Additionally, the grant program will promote Tribal waste management practices that protect cultural resources such as medicinal plants, culturally significant animals such as fish and eels, and the food of subsistence hunters and fishers. This effort will increase the waste management program capacity of tribes, and will be measured as part of a new Tribal waste management measure that was developed in consultation with the federally-recognized tribes. The EPA will give Tribal grant recipients additional direct technical assistance to ensure that Tribal waste management activities are implemented effectively.

PCB approvals are issued to ensure safe management of wastes and to support cleanup activities. PCB approvals are issued by the EPA, and not delegated to the states. The EPA established a goal for FY 2016 to authorize 200 approvals for cleanup, storage, and disposal activities. The agency has developed a database for tracking PCB approvals and standard language for individual approvals to increase the efficiency and effectiveness of the approval process.

²⁴⁸ The EPA will seek through this appropriation the authority to fund the development and implementation of alternative solid waste management activities/facilities (including equipment acquisition) and the cleanup, closure, and post-closure of open dumps in Indian country.

Resources in FY 2016 will develop implementation tools and guidance to enhance protections for communities by improving the effectiveness and pace of approvals for PCB cleanup and disposal. These materials will address issues of national importance, such as PCBs in schools, best management practices for facilities processing used oil, outreach materials to promote community engagement, compilation of annual reports for storage and disposal activities, and demonstration test technical support.

The Waste Management program struggles to devote adequate resources to all of the constantly emerging waste issues that challenge the program. Therefore, in order to focus on higher priority waste program needs, some areas will be impacted, through delays or inaction, in FY 2016 (e.g., international commitments, such as those under the U.S.-Mexico Border program; additional analysis to support non-hazardous secondary materials categorical rulemakings; and the regulatory backlog petition responses).

Performance Targets:

Measure	(PCB) Number of approvals issued for polychlorinated biphenyl (PCB) cleanup, storage and disposal activities.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target						150	150	150	Approvals
Actual						254			

Measure	(HW0) Number of hazardous waste facilities with new or updated controls.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	100	100	100	100	100	100	110	115	Facilities
Actual	115	140	130	117	114	129			

Measure	(MW8) Number of tribes covered by an integrated solid waste management plan.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	16	23	14	3	3	10	10	10	Tribes
Actual	31	23	17	13	26	20			

The EPA’s performance measures that tracks the number of hazardous waste facilities with new or updated controls has a FY 2016 target of 115. The EPA's performance measure that tracks the number of approvals issued for PCB cleanup, storage and disposal activities has an FY 2016 target of 200 approvals. Additional information about the performance measures related to this program can be found in the Eight-Year Performance Array.

The agency will work collaboratively to begin development on a new Tribal performance measure. We anticipate that this measure will be tied to Integrated Waste Management Plans.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,979.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.

- (-\$1,366.0 / -9.2 FTE) This net decrease reflects a shift of FTE to other agency priorities, offset by an increase for employee background investigations and geographic information system services. This reduction may delay activities such as conducting additional analysis to support non-hazardous secondary materials categorical rulemakings and responding to regulatory backlog petitions.
- (+\$2,842.0) This increase enables the EPA to provide essential support to a wide variety of Tribal waste management program activities (e.g., remedying drinking water contamination and direct exposure to toxins and disease) that would make a visible difference in Tribal communities.

Statutory Authority:

Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act and the Hazardous Waste Electronic Manifest Establishment Act, 42 United States Code 6901 et seq. – Sections 3004, 3005, 3024, and 8001, and the Toxic Substances Control Act, 15 U.S.C. 2605 et seq. – Section 6.

RCRA: Corrective Action

Program Area: Resource Conservation and Recovery Act (RCRA)
Goal: Cleaning Up Communities and Advancing Sustainable Development
Objective(s): Restore Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$36,578.7	\$36,438.0	\$37,048.0	\$610.0
Total Budget Authority / Obligations	\$36,578.7	\$36,438.0	\$37,048.0	\$610.0
Total Workyears	211.9	210.4	205.4	-5.0

Program Project Description:

The EPA focuses its Corrective Action resources on the 3,779 operating hazardous waste facilities undergoing cleanup, a subset of approximately six thousand facilities with potential corrective action obligations under the Resource Conservation and Recovery Act (RCRA).²⁴⁹ These facilities, some of which are large and complex, include some of the most highly contaminated and technically challenging sites the EPA confronts in its cleanup programs. Preventing exposures to unacceptable levels of contamination in soils or contaminated groundwater is a top priority for the program. Over 105 million people live within three miles of a RCRA corrective action facility (roughly 35 percent of the U.S. population)²⁵⁰. While there is no single way to characterize communities located near these sites, the population residing in close proximity to RCRA's cleanup sites is more minority, low income, linguistically isolated, and less likely to have a high school education than the U.S. population as a whole.²⁵¹ As a result, these communities may have fewer resources to address concerns about their health and environment. The total area covered by these corrective action sites is approximately 18 million acres.²⁵² The cost to clean up sites under the RCRA program can vary widely, with some costing less than one million dollars, and others exceeding 50 million dollars. The EPA's obligation is to protect human health and the ecosystem at these facilities during cleanup and for the long-term where waste is managed in place.

Corrective action cleanup has a proven record of helping revitalize communities and spurring economic development by enabling reuse of land for housing, industrial, or commercial projects. Ridding neighborhoods of abandoned and blighted properties can reduce crime and bolster

²⁴⁹ The EPA tracks corrective action obligations for RCRA-permitted facilities. There are additional non-permitted facilities that may have corrective action obligations not tracked by the EPA. The EPA recognizes that the total universe of such facilities or sites "subject to" corrective action is between five and six thousand facilities or sites, and is evaluating this universe to determine if cleanup work is needed. The EPA recently reassessed the baseline of corrective action facilities to include 3,779 facilities for the EPA's FY 2014-2018 Strategic Plan (up from 3,746 facilities in the EPA's previous plan).

²⁵⁰ Memorandum, February 18, 2014, from Industrial Economics, Inc (IEc) to EPA, Re: Analysis to Support Assessment of Economic Impacts and Benefits under RCRA Programs: Key Scoping Assessment, Initial Findings and Summary of Available Data (Section 1), pages 5-11.

²⁵¹ U.S. EPA, Office of Solid Waste and Emergency Response Estimate. 2014. Data collected includes: (1) site information as of the end of FY 2011 from RCRAInfo; and (2) census data from the 2007-2011 American Community Survey.

²⁵² As compiled by RCRA Info.

community pride and well-being, raise property values, address environmental justice issues, as well as create new opportunities for commerce, employment, and property tax revenue.

The EPA works in partnership with states, having authorized 43 states and one territory to directly implement the corrective action program.²⁵³ The agency continues to provide leadership and support to its state partners and serves as lead regulator at a significant, and increasing, number of facilities.

In conjunction with the states, the EPA's long-term goal is achieving performance-based cleanup of these facilities; assuring that human exposures are controlled or eliminated; controlling the migration of contaminated groundwater; and where waste is left in place, site appropriate long-term stewardship is conducted, such as maintaining engineering and institutional controls to ensure ongoing protectiveness. Despite the progress in FY 2014 and previous years, there remains a significant workload to be addressed. Only 25 percent of the 3,779 facilities have reached the end goal of completing cleanup, so this leaves over 2,800 facilities still needing oversight and technical support to reach their final goal of completing site-wide cleanup objectives.

The agency maintains a national hazardous waste information system, RCRAInfo, which is critical for managing corrective action and the overall RCRA program (including facility information, financial assurance, permitting, and compliance monitoring and enforcement). RCRAInfo is the database where information collected for the National Biennial RCRA Hazardous Report (BR) is uploaded, which is mandated by RCRA Sections 3002 and 3004. In the last BR cycle there were 16,710 generators of over 35 million tons of hazardous waste.

RCRAInfo tracks the environmental progress of approximately 20,000 hazardous waste units at 6,600 facilities. In addition to providing a national repository of RCRA data, it also serves as the primary operational RCRA data system for many states that do not have their own systems. RCRAInfo provides reporting capabilities and data analysis support to the EPA and the states, and also provides the RCRA data which supports the EPA's site information interfaces for e-Reporting and public access. During the 13 years RCRAInfo has been in use, the agency has updated the system five times to incorporate new data fields, add functional enhancements, and improve the system to keep pace with modern technology. A sixth update, to be available in late FY 2016, will address security vulnerabilities in today's advanced technological environment.

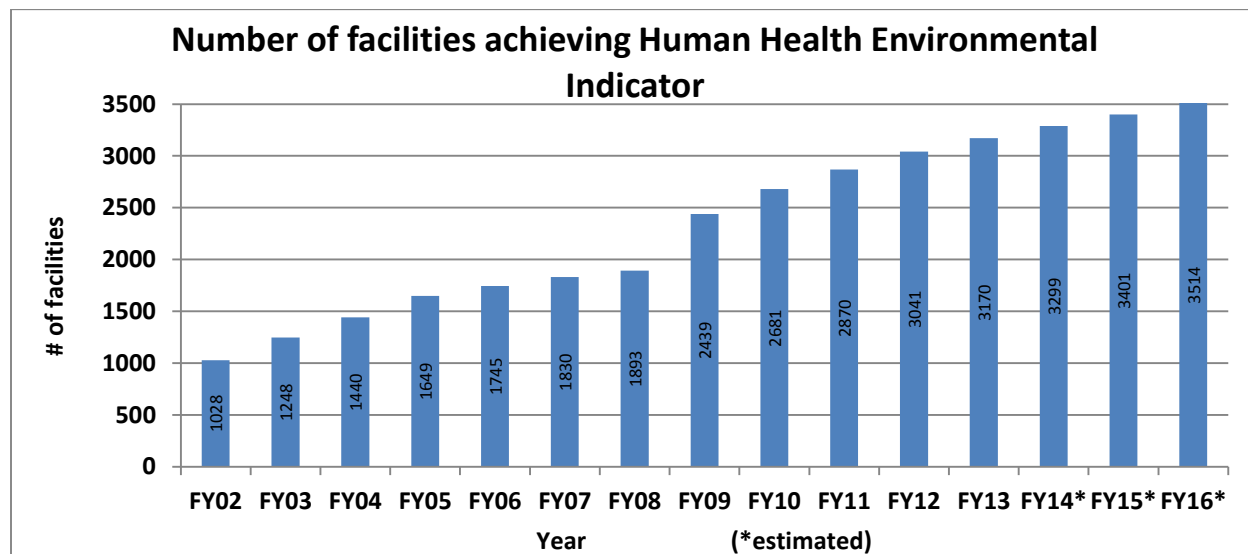
FY 2016 Activities and Performance Plan:

A successful RCRA corrective action program assures that hazardous waste management facilities address contamination during the operational life of the facility when they are financially viable. RCRA saves the taxpayers from bearing the significant cleanup costs under Superfund and shortens the time for completing protective cleanups.

²⁵³ State implementation of the Corrective Action program is funded through the STAG Categorical Grant: Hazardous Waste Financial Assistance and matching State contributions.

To improve the accountability, transparency, and effectiveness of RCRA cleanup programs, in FY 2012, the agency initiated an effort using the Lean²⁵⁴ process, focusing on the facility investigations process in two regions. The agency developed tools to increase program efficiencies and initiated pilots to apply those tools and develop lessons learned. In FY 2014 the agency conducted a second Lean effort focusing on remedy selection. To help nationalize and implement the process improvements identified in these exercises, additional tools, lessons learned, website materials, and outreach sessions are being developed to familiarize the EPA Regional Offices and state programs with this effort. The efficiencies identified (e.g., better planning, reduced review time frames, reductions in rework, and better conflict resolution) will help preserve resources and allow the agency and state programs to more effectively focus resources on critical facilities, accelerate cleanups, and put properties back into safe, productive use. The Lean participants estimated, if used properly, the efficiencies identified and associated implementation tools could significantly reduce the investigation timeframes from a typical worst case scenario of 19.4 years to 5.1 years, a reduction of about 74 percent. The benefits of streamlining will lead to faster cleanups (e.g., reduced time frames for facility investigations lead to faster remedy response and prevention of exposures) in both authorized and unauthorized states. Additionally, the approaches being developed to nationalize successful Lean efforts piloted in individual regions will be shared for possible application in other agency program areas.

The EPA has made considerable progress in assuring that prior to completion of cleanups, unacceptable human exposures are eliminated or controlled as soon as possible. As can be seen in the graph below, the RCRA corrective action program is making significant progress preventing exposure to toxic chemicals, while longer-term cleanup progresses. At these facilities, the EPA has taken action to address any unacceptable exposures and eliminate acute risks while continuing to pursue long-term, permanent cleanups. By the end of FY 2016, the number of RCRA corrective action facilities designated as having human exposure to contaminants under control will have reached 93 percent.



²⁵⁴ Principles of Lean. The Lean Enterprise Institute, Inc. <http://www.lean.org/WhatsLean/Principles.cfm>.

In FY 2016, the EPA will continue to focus resources on those sites that present the highest risk to human health and the environment and implement actions to end or reduce these threats. The agency will focus on completing site investigations to identify threats, establishing interim remedies to reduce and eliminate exposure; and selecting and constructing safe, effective long-term remedies that maintain the viability of the operating facility. The EPA will also place additional focus on identifying facilities where the corrective action process can be considered completed (i.e., cleanup performance standards have been attained, or no further action is necessary). These activities will be consistent with the programmatic response developed by the agency after a 2011 General Accountability Office report on the RCRA corrective action program.²⁵⁵

In addition, as part of the *FY 2014-2018 Strategic Plan*, the agency identified aggressive but achievable goals to ensure progress for the corrective action program. Using the FY 2018 goals as a guide, annual targets were identified. Since these targets were developed, there have been reductions for state program resources (43 states and one territory implement the federal RCRA corrective action program), impacts on the EPA’s cleanup resources (i.e., support to the PCB cleanup program), and negative economic impacts on the regulated entities paying for RCRA cleanups. Additionally, as the program progresses, many of the remaining facilities are the most challenging and complex requiring substantial resource commitments. Combined, these impacts have led to a slower pace for cleanups than originally anticipated. The agency is in the process of reevaluating the existing goals and setting new long-term aspirational goals, and assessing how this may impact corrective action targets for FY 2016 and beyond.

Ensuring sustainable future uses for RCRA corrective action facilities is considered as part of remedy selections and in the construction of those remedies, and is consistent with the EPA’s emphasis on land restoration in its *FY 2014-2018 Strategic Plan*. As in previous years, the agency continues to provide technical assistance to authorized states in the areas of site characterization, sampling, remedy selection, and long-term stewardship at our baseline sites. States have been challenged in the cleanup area due to downsizing and are looking to the federal program for assistance. As a result and at the request of states, the EPA has developed, where resources allow, work-sharing agreements with the states, particularly for sites that have complex issues²⁵⁶ or for more specialty tasks such as ecological risk assessments.

Performance Targets:

Measure	(CA6) Cumulative percentage of RCRA facilities with corrective action performance standards attained.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target						21	24	25	Percent
Actual						24			

Measure	(CA1) Cumulative percentage of RCRA facilities with human exposures to toxins under control.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	No Target Established	69	72	81	85	87	90	92	Percent
Actual	65	72	77	81	85	87			

²⁵⁵ Hazardous Waste: Early Goals Have Been Met in EPA’s Corrective Action Program but Resource and Technical Challenges Will Constrain Future Progress (GAO-11-514), July 2011.

²⁵⁶ For example, vapor intrusion, wetlands contamination or extensive groundwater issues.

Measure	(CA2) Cumulative percentage of RCRA facilities with migration of contaminated groundwater under control.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	No Target Established	61	64	69	73	77	80	82	Percent
Actual	58	63	67	72	76	79			

Measure	(CA5) Cumulative percentage of RCRA facilities with final remedies constructed.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	No Target Established	35	38	46	51	55	60	64	Percent
Actual	32	37	42	47	51	56			

Progress for RCRA corrective action performance measures tracking migration of contaminated groundwater under control and facilities with performance standards attained was stronger than anticipated during FY 2014. To continue pushing progress forward, the FY 2015 performance targets for these two measures have been raised from 79 to 80 percent and from 22 to 24 percent, respectively.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,592.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$982.0 / -5.0 FTE) This program change reflects a reduction in the EPA’s technical support to state partners and may reduce the pace of cleanups including site-wide ‘RCRA remedy construction’ determinations.

Statutory Authority:

Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 United States Code 6901 et seq. – Sections 3004, 3005, 8001.

RCRA: Waste Minimization & Recycling

Program Area: Resource Conservation and Recovery Act (RCRA)
Goal: Cleaning Up Communities and Advancing Sustainable Development
Objective(s): Preserve Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$9,213.5</i>	<i>\$8,481.0</i>	<i>\$10,781.0</i>	<i>\$2,300.0</i>
Total Budget Authority / Obligations	\$9,213.5	\$8,481.0	\$10,781.0	\$2,300.0
Total Workyears	53.0	46.8	51.0	4.2

Program Project Description:

Working closely with U.S. businesses, state and local governments, and the general public, the Resource Conservation and Recovery Act (RCRA) Sustainable Materials Management (SMM) program strives to implement key aspects of the President's Climate Action Plan:

- Cutting energy waste in businesses and factories;
- Reducing methane emissions;
- Leading at the federal level; and
- Protecting our country from the impacts of climate change.

RCRA establishes the EPA's role to promote and encourage the conservation of materials and energy resources to protect human health and the environment in Section 6902 of the law. The EPA invests in SMM in order to efficiently and effectively minimize environmental impacts throughout the full life cycle of materials—from raw materials extraction, through transportation, processing, manufacturing, and use, as well as reuse, recycling, and disposal. The cradle-to-cradle approach highlights ways to reduce waste throughout the life-cycle and to use waste materials as commodities to grow industries and associated jobs.²⁵⁷ Waste management and recycling accounts for \$82 billion dollars in revenue in the U.S., equal to 0.5 percent of the annual GDP. Through the SMM program, industries become more efficient, and allow the U.S. to conserve virgin resources, including natural resources, fossil fuels, minerals, and precious metals. In calendar year 2013, the EPA estimates that SMM stakeholders' activities reduced greenhouse gas emissions by more than 40 million metric tons of carbon dioxide equivalents (MMTCO₂E) — providing over \$1.6 billion in benefits to society by reducing damages from climate change.²⁵⁸ The SMM program performs a unique coordinating role, bringing together various public and private organizations and providing guidance for redirecting materials away from disposal and towards beneficial uses.

²⁵⁷ There are many articles and reports written on this subject. For example, see More Jobs, Less Pollution (2011) Growing the Recycling Economy in the U.S., <http://www.nrdc.org/business/guides/recyclingreport.asp>.

²⁵⁸ Memorandum: From Industrial Economics to EPA, December 14, 2009, Proposed Methodologies for Valuing ORCR Impacts and Benefits. Note: The EPA updated the 2009 results to adjust for inflation establishing the estimates included above.

Strong federal leadership and action is needed in this area due to the U.S. economy's impact on global materials usage. U.S. raw material use rose 5.1 times faster than the population in the last century.²⁵⁹ The generation, processing, and disposal of materials is associated with 42 percent of U.S. greenhouse gas emissions.²⁶⁰

FY 2016 Activities and Performance Plan:

An effective SMM strategy integrates analysis and information to create a national focus, implements appropriate policies and programs, measures results, and adjusts programs and policies, as appropriate. In FY 2016, the EPA will continue to focus on a small set of clearly-articulated, results-driven priorities that emphasize the principles of SMM, moving beyond the foundation of environmental protection and toward sustainability. The agency will advance the SMM framework by:

- Providing national leadership and direction on approaches to reduce environmental impacts through SMM, including source reduction and safe and effective reuse/recycling of materials.
- Partnering with a wide range of stakeholders (industry, governments, non-profits, and others) to implement efficient and innovative SMM solutions that help protect human health and the environment through improved materials management, reduced waste generation, and improved waste utilization.
- Improving metrics and developing and maintaining measurement tools to prioritize work, identify critical data gaps, gather data, and measure performance in areas such as greenhouse gas reduction and energy savings.
- Providing high-quality scientific information and data.
- Implementing targeted challenges to encourage participants to modify business practices to increase resource efficiency with demonstrable results.

In FY 2016, the EPA will continue to promote the SMM approach in high priority areas, which are selected based on an analysis of opportunities for reducing environmental impacts in *Sustainable Materials Management: The Road Ahead*.²⁶¹ The agency will continue to support the advancement of SMM programs at the state and community levels, as part of the agency's cross-program sustainability effort. Representative activities include:

- Sustainable Food Management – The EPA continues to focus on preventing food waste through improved purchasing practices and increasing food donation and composting. The Food Recovery Challenge²⁶² encourages participants to reduce as much of their food waste as possible.²⁶³ The largest generators of food waste – universities, events/sports venues, and grocery stores are targeted. In calendar year 2013, the first year for reporting

²⁵⁹ Center for Sustainable Systems, U.S. Material Factsheets (2010) and USGS (2007) *Effects of Regulation and Technology on End Uses of Nonfuel Mineral Commodities in the United States*.

²⁶⁰ U.S. EPA, OSWER, OCPA. "Opportunities to Reduce Greenhouse Gas Emissions through Materials and Land Management Practices." September 2009. Online: http://www.epa.gov/oswer/docs/ghg_land_and_materials_management.pdf.

²⁶¹ U.S. EPA OSWER ORCR. Sustainable Materials Management: The Road Ahead. June 2009 <http://www.epa.gov/epawaste/conserva/smm/pdf/vision2.pdf>.

²⁶² For more information, visit: <http://www.epa.gov/wastes/conserva/smm/foodrecovery/index.htm>.

²⁶³ For more information, visit: <http://www.epa.gov/waste/conserva/foodwaste/>.

in this category, Food Recovery Challenge participants reported 4,708 tons of food waste were prevented through source reduction; 98,293 tons of edible food were donated, and 272,306 tons of food waste were composted for a total of 375,307 tons. In FY 2016, the EPA will emphasize work in restaurants, K-12 schools, and the hospitality sector. These additional sectors were selected as pilot sectors in FY 2014. Public education and outreach efforts will be expanded to the additional sectors and consumers.

- Used Electronics –The EPA is implementing commitments under the National Strategy for Electronics Stewardship,²⁶⁴ including working to increase the amount of used electronics managed by third-party certified electronics recyclers through the EPA's Electronics Challenge.²⁶⁵ Since the release of the National Strategy in calendar year 2011, there has been a 360 percent increase in the number of certified recyclers. In addition, certified recyclers can now be found in 45 states. In calendar year 2014, SMM Electronics Challenge participants diverted 221,192.54 metric tons of end-of life-electronics from the landfill; sent 220,461.69 metric tons of end-of-life electronics to third-party certified recyclers; and, avoided more than 41,000 metric tons of carbon dioxide equivalent by increasing certified recycling by 15,647 metric tons, or 7.6 percent, since calendar year 2012. In FY 2016, the EPA will continue implementation of the Electronics Challenge building on FY 2015 achievements in a number of participating organizations and overall tonnage of electronics in the U.S. recycled by third-party certified electronics recyclers.
- Federal Government – The federal government occupies nearly 500,000 buildings, operates more than 600,000 vehicles, employs more than 1.8 million civilians, and purchases more than \$500 billion per year in goods and services.²⁶⁶ In FY 2016, the EPA will continue to lead by example through its Federal Green Challenge²⁶⁷ and will help other federal agencies adopt SMM approaches to reduce their environmental footprint, including the reduction of greenhouse gas emissions.²⁶⁸ The EPA also will explore the application of the SMM approach into other high priority sectors, based on lessons learned from the first two years of the national SMM program and re-evaluation of *The Road Ahead*. Through the Federal Green Challenge in FY 2013, federal facilities participating in the Challenge reported diverting more than 360,000 tons of waste from landfills; diverting nearly 523,000 tons of municipal solid waste and construction and demolition waste from landfills; saving over 620,000 gallons of fuel oil, 1.7 billion cubic feet of natural gas; reducing fleet distance traveled by 16.5 million miles; and sending 1,765 tons of end of life electronics to third party certified recyclers. Combined, these efforts resulted in an estimated savings of \$42 million.²⁶⁹

In FY 2016, the EPA will provide Community Resource Coordinators to work as a cross-agency, multi-media team to facilitate access to the EPA's programs and resources. These Coordinators will work with external partners such as community stakeholder organizations, other federal

²⁶⁴ In July 2011, the National Strategy for Electronics Stewardship established a framework for responsible electronics design, purchasing, management, and recycling. See <http://www.wpa.gov/osw/conservematerials/ecycling/taskforce/>.

²⁶⁵ Please see: <http://epa.gov/smm/electronics/index.htm>.

²⁶⁶ Please see: http://www.whitehouse.gov/the_press_office/President-Obama-signs-an-Executive-Order-Focused-on-Federal-Leadership-in-Environmental-Energy-and-Economic-Performance.

²⁶⁷ Please see: <http://www.epa.gov/federalgreenchallenge/>.

²⁶⁸ Please see: <http://www.gpo.gov/fdsys/pkg/FR-2009-10-08/pdf/E9-24518.pdf>.

²⁶⁹ These figures were reported to the EPA by federal facilities participating in the Federal Green Challenge during FY 2012.

agencies, state, local and regional government, the private sector, academia, and other foundations to help ensure that the EPA resources and expertise meet community needs in a more holistic way. The coordinators will focus on adaptation/resiliency work that is called for in the EPA Program and Regional Office Adaptation Implementation Plans, sustainability concepts (e.g., SMM, green infrastructure, smart growth, brownfields, etc.), and community work to ensure that the diverse array of community support mechanisms (the EPA's programs and programs across the federal family that impact environmental outcomes) are accessible to overburdened and vulnerable communities.

In addition, the EPA will focus a total of \$1.3 million to support the EPA's investment in climate mitigation through waste program activities to reduce greenhouse gas emissions (GHG). The Air program is making progress addressing GHG emissions from power plants, vehicles, oil, and gas operations. However, further efforts are required to put the country on an emissions trajectory consistent with the President's long-term climate goals. This work will leverage climate mitigation activities in the Waste and Water programs to generate substantial GHG reductions, resulting in significant co-benefits in non-GHG reduction program areas (e.g., waste reduction, water savings, and job creation). These funds will be provided via a grant program and focus on: increasing the recycling rates for containers and packaging; enhancing and expanding results-driven programs; working with the public and/or private sector to provide funding such as zero-interest rate loans to assist states and local governments and NGOs focused on infrastructure development and behavior change; and providing technical assistance to recycling programs. The EPA also will work with additional stakeholders to ensure consistent recycling guidance, identify gaps and recycling barriers, and transfer best practices. The reporting period for grants is anticipated to extend beyond one year, in order to measure changing recycling rates.

Reliable measurement of waste generation, composition, use and disposition of municipal waste (e.g., steel, glass, aluminum, paper, and plastic) is critical to targeting program efforts, measuring benefits and developing markets. The EPA will improve and enhance measurement methodologies and data in key SMM focus areas (e.g., food, electronics, federal government, and construction and demolition debris), as improvements are made to the annual *Municipal Solid Waste Characterization Report*, which is the national source of this data. Additional enhancements will include state level data, lifecycle materials data, and improved recycling data.

In FY 2016, the EPA will continue to work toward developing more effective business practices to improve performance, and find efficiencies through program outreach and integrating activities, through such programs as the Federal Green Challenge. SMM activities will achieve substantial, tangible results in coming years, including money savings for the federal government. As mentioned previously in FY 2013, the accomplishments of federal facilities participating in the challenge resulted in savings of \$42 million.

Through SMM, the EPA is seeking to decrease the amount of virgin materials consumed in the U.S. for the generation of materials, products, and services. The EPA's SMM performance estimates are largely based on national recycling efforts and on the Food Recovery, Electronics, and Federal Green Challenges described above. The EPA has increased the SMM performance target in FY 2015 and FY 2016 due to results realized through the new SMM programs and improvements in recovery during FY 2011 and reported in FY 2012.

Performance Targets:

Measure	(SM1) Tons of materials and products offsetting use of virgin resources through sustainable materials management.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				8,549,502	8,501,537	8,603,033	9,346,830	9,450,000	Tons
Actual				9,002,588	Data Avail 2/2015	Data Avail 2/2016			

The EPA has increased its FY 2015 performance target from 8,603,033 to 9,346,830 tons. This change reflects the results realized through the new SMM programs and improvements in recovery during FY 2011 and reported in FY 2012.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$383.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$1,313.0) This program change reflects an increase in the agency’s focus on supporting climate mitigation through waste program activities to further reduce greenhouse gas emissions.
- (+\$719.0 / +5.0 FTE) This program change provides Regional Offices with Community Resource Coordinators for climate adaptation, sustainability, and communities work.
- (-\$115.0 / -0.8 FTE) This program change reflects a slight reduction in SMM outreach to cities, towns, and businesses to support integrated cross-program approaches to sustainability.

Statutory Authority:

Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 United States Code 6901 et seq. – Sections 1002, 1003, 2002, and 8001.

Program Area: Toxics Risk Review and Prevention

Endocrine Disruptors

Program Area: Toxics Risk Review and Prevention
Goal: Ensuring the Safety of Chemicals and Preventing Pollution
Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$5,638.5	\$7,553.0	\$4,259.0	(\$3,294.0)
Total Budget Authority / Obligations	\$5,638.5	\$7,553.0	\$4,259.0	(\$3,294.0)
Total Workyears	11.8	9.1	8.9	-0.2

Program Project Description:

The Endocrine Disruptor Screening Program (EDSP) was established in 1996 under authorities contained in the Food Quality Protection Act (FQPA) and the Safe Drinking Water Act (SDWA) amendments.²⁷⁰ Current activities within the EDSP include validating high throughput assays, prioritizing and screening the EDSP universe of chemicals, establishing policies and procedures, and evaluating data to ensure chemical safety by protecting public health and the environment from endocrine disrupting chemicals. This includes implementing a more strategic and targeted testing approach based on Tox-21 computational tools anchored by sound science and a more complete understanding of toxicity pathways and biological mechanisms.

The Chemical Safety and Pollution Prevention program is working with the National Center for Computational Toxicology and the EPA's Research and Development program to expand the set of high throughput tools available for use in the EDSP. Since FY 2013, the agency has engaged the FIFRA Scientific Advisory Panel (SAP) in the scientific peer review of high throughput tools such as ToxCast and ExpoCast to evaluate their use in chemical prioritization and screening. These external peer review meetings were held in January 2013, July 2014, December 2014, and a meeting is tentatively planned for September 2015. The results of these reviews will assist the agency in incorporating an integrated bioactivity-exposure approach to the prioritization and screening of EDSP chemicals.

In response to the May 2011, OIG evaluation report, "EPA's Endocrine Disruptor Screening Program Should Establish Management Controls to Ensure More Timely Results,"²⁷¹ the agency issued its initial *EDSP Comprehensive Management Plan*²⁷² on June 28, 2012. The EDSP Management Plan describes how the agency intends to continue its implementation of the EDSP in three major parts: 1) scientific advancement of data reviews and assay development and validation (including advancing the state-of-the-science in chemical priority setting and screening), 2) test order management and implementation including prioritizing chemicals, developing policies and procedures, and issuing and managing test orders, and 3) data management by developing an enhanced and consolidated information infrastructure (information technology or IT). As part of that Comprehensive Management Plan, the agency

²⁷⁰ <http://water.epa.gov/lawsregs/rulesregs/sdwa/index.cfm>.

²⁷¹ <http://www.epa.gov/oig/reports/2011/20110503-11-P-0215.pdf>.

²⁷² <http://www.epa.gov/endo/pubs/EDSP-comprehensive-management-plan.pdf>.

agreed to provide an annual update of the plan. The first update, released on February 14, 2014, describes the goals of the program for FY 2015 to 2020 and highlights the need to continue improving the scientific methods used to evaluate chemicals that may affect the endocrine system in humans and wildlife. The plan is available on the agency's *EDSP* website at www.epa.gov/endo.

FY 2016 Activities and Performance Plan:

During FY 2016, the EDSP will fulfill several key milestones including:

- Continued collaboration with the EPA's Research and Development program to increase scientific confidence in high throughput approaches to support a more refined, integrated bioactivity-exposure based approach to chemical prioritization and screening in the EDSP.
The program also will continue integration chemical safety and pesticides expanding the applicability of high throughput tools for developing more targeted testing approaches that better assess a chemical's potential to interact with the estrogen, androgen, and thyroid systems.
- Refining and expanding efforts to prioritize the universe of EDSP chemicals.
- Continuing to issue Tier 1 Test Orders for select chemicals in the EDSP universe informed by an integrated bioactivity-exposure approach to prioritization and screening.
- Continuing to evaluate ExpoCast and endocrine-relevant ToxCast high throughput assays to increase coverage for known endocrine toxicity pathways through the scientific understanding of adverse outcome pathways.

EDSP will also continue to collaborate with international partners, through the Organization for Economic Cooperation and Development (OECD), to maximize the efficiency of the EPA's resources and promote adoption of internationally-harmonized test methods for evaluating the potential endocrine effects of chemicals. The EPA represents the U.S. as either the lead or a participant in OECD projects involving the improvement of assay systems including the development of non-animal prioritization and screening methods.

For more information, please see <http://www.epa.gov/endo/>.

Performance Targets:

Measure	(E01) Number of chemicals for which Endocrine Disruptor Screening Program (EDSP) decisions have been completed								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			3	5	20	59	0	52	Chemicals
Actual			3	1	0	3			

Measure	(E06) Number of High Throughput (Screening HTS) assays and Quantitative Structure Activity Relationship (QSAR) models validated for EDSP chemical prioritization and screening.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target						8	18	6	Assays and Tools
Actual						8			

This program measures performance by tracking the number of chemicals with completed EDSP related decisions and the number of High Throughput Screening (HTS) assays and Quantitative Structure Activity Relationship (QSAR) models validated for use in chemical prioritization, screening or data replacement for EDSP. The latter measure reflects the advancement in technology replacing validation of traditional screening and testing methods with new, more efficient Tox21 computational tools, as recommended by the NAS 2007 report. The agency is continuing to explore refined performance measures that better reflect the advances in technology supporting the program. For example, as HTS assays and QSAR models are validated for additional endpoints within the context of endocrine adverse outcome pathways, these tools will substitute for existing Tier 1 screening battery assays significantly increasing the number of chemicals addressed within the EDSP over time.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$50.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$3,344.0 / -0.2 FTE) This program change reflects a reduction to the Endocrine Disruptor program as a result of the deployment of the computational toxicology high-throughput model that reduces the workload in developing new assays.

Statutory Authority:

Federal Food Drug and Cosmetic Act (FFDCA) Section 408 (p) (21 U.S.C. 346a(p)); Safe Drinking Water Act (SDWA) Section 1457 (42 U.S.C. 300j-17).

Toxic Substances: Chemical Risk Review and Reduction

Program Area: Toxics Risk Review and Prevention

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$56,133.9	\$58,135.0	\$56,304.0	(\$1,831.0)
Total Budget Authority / Obligations	\$56,133.9	\$58,135.0	\$56,304.0	(\$1,831.0)
Total Workyears	238.4	245.9	239.2	-6.7

Program Project Description:

Under the Toxic Substances Control Act (TSCA), the EPA has significant responsibility for ensuring that chemicals in commerce do not present unreasonable risks to human health or the environment. The Chemical Risk Review and Reduction (CRRR) Program works to ensure the safety of:

- Existing chemicals (those already in use when TSCA was implemented in 1978)²⁷³, by obtaining and assessing chemical data and by taking regulatory and/or non-regulatory action to prevent any unreasonable risk their use may pose; and
- New chemicals (including genetically modified organisms), by reviewing and taking action on new chemical notices submitted by industry, including Pre-Manufacture Notices (PMNs), to ensure that no unreasonable risk is posed when those chemicals are introduced into U.S. commerce.

The EPA is continuing to strengthen its program to ensure chemical safety, giving particular emphasis to addressing risks from exposure to existing chemicals. This enhanced approach, as reflected in the Fiscal Year 2014-2018 EPA Strategic Plan, has several key components:

- Filling information gaps on existing chemicals by pursuing a range of information gathering actions under TSCA, expanding user-friendly electronic reporting and increasing transparency by making non-confidential data on TSCA chemicals more readily available to the public;
- Assessing the human health and environmental risks of existing chemicals, using data from all available sources; and,

²⁷³ These include certain prevalent, high-risk chemicals known generally as “legacy chemicals” (e.g., PCBs, mercury), which were previously covered in a separate Chemical Risk Management (CRM) budget justification. The CRM program area has been combined with Chemical Risk Review and Reduction beginning with FY 2015.

- Managing unreasonable chemical risks by utilizing pertinent regulatory authority and by employing non-regulatory approaches such as evaluating the use of potential alternatives that may be safer.

Recognizing a need to modernize and strengthen TSCA, the EPA in 2010 issued a statement of legislative reform principles designed to increase confidence that chemicals used in commerce and vital to the U.S. economy are safe.²⁷⁴As the Congress continues to consider legislative proposals, the EPA will continue to work vigorously under current authorities to ensure chemical safety, as described below.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to implement its Enhanced Chemicals Management approach. This approach was launched in FY 2012 when the agency began screening the thousands of chemicals currently in use to establish priorities for assessment and further action. Using this body of chemical data, EPA then published its TSCA Work Plan, in which 83 chemicals were identified for priority assessment and risk management action if needed. The EPA updated the list of TSCA Work Plan Chemicals in October 2014, following the methodology used in FY 2012 and applying important chemical information obtained through the Chemical Data Reporting cycle that ended in 2012. The refreshed TSCA Work Plan Chemicals list contains 90 chemicals. The refreshed list contains 23 chemicals added, 16 chemicals consolidated or removed because they are no longer in commerce or are already assessed and being addressed by the EPA or other agencies.

The EPA in FY 2013, released draft risk assessments for the first five TSCA Work Plan Chemicals and initiated work on several more. In FY 2014, the agency published final risk assessments for four of those chemicals after addressing public and peer review comments – the first final TSCA risk assessments published by the EPA in 28 years – and commenced assessing options for reducing identified risks. In addition, the EPA in FY 2014, made significant improvements to its new ChemView database, which provides online public access to health and safety data on chemicals regulated under TSCA, and significantly expanded its content. The FY 2016 budget will enable the EPA to continue implementation of the Enhanced Chemicals Management approach.

Existing Chemicals Program:

In FY 2016, the EPA will continue to ensure the safety of chemicals already in commerce by:

1) Obtaining, Managing, and Enabling Public Access to Chemical Information:

In FY 2016, the resources requested will support continued development of the information base needed to facilitate chemical assessment and risk management action while increasing public access to chemical safety information. The following activities planned for FY 2016 will

²⁷⁴ Essential Principles for Reform of Chemicals Management Legislation for more information please refer to <http://www.epa.gov/oppt/existingchemicals/pubs/principles.html>

enhance the quantity, accessibility and efficient management of essential chemical information in support of risk assessment, risk management and fuller transparency:

- Obtaining and processing data required by three TSCA test rules issued between 2006 and 2013 covering High Production Volume (HPV) chemicals not sponsored under the HPV Challenge Program;
- Expanding ChemView to include information from chemical assessments, PMN assessments, and Section 8 (d), 8(e), 8(c)²⁷⁵ submissions.
- Increasing transparency by continuing to review all new submissions to the EPA under TSCA where chemical identity in health and safety studies is claimed as CBI and, where appropriate, challenging CBI claims and making information in health and safety studies publicly available;
- Continuing to digitize both new and archived documents received under various TSCA authorities (e.g., Sections 4, 5²⁷⁶ and 8) and, where appropriate, making those data available to the public;
- Enhancing the agency's electronic filing systems for TSCA submissions to reduce manual data steps and expedite scientific review of chemicals, and
- More fully integrating TSCA information management systems with the agency's E-Enterprise business strategy, leveraging the electronic portal designed in FY 2014 to provide better customer services for external users

The EPA is planning to allocate \$10,760.0 and 47.2 FTE to this work area in FY 2016.

2) Screening and Assessing Chemical Risks:

In FY 2016, the EPA will continue work to assess chemicals on the refreshed TSCA Work Plan Chemicals list and to determine whether management actions are needed for any chemicals assessed. Assessments of several more chemicals initiated in 2012-2014²⁷⁷ are underway, and further assessment work is planned for FY 2016.

²⁷⁵ EPA's TSCA Section 8(c) rule requires producers, importers and certain processors of chemical substances and mixtures to keep records concerning allegations of significant adverse reactions and report those records to EPA upon notice in the Federal Register or notice by letter. Under Section 8(d), EPA has issued rules requiring producers, importers and processors to submit lists and/or copies of ongoing and completed, unpublished health and safety studies. TSCA Section 8(e) requires that any person who manufactures, processes or distributes in commerce a chemical substance or mixture and who obtains information which reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment must inform EPA of such information within 30 days unless that person has actual knowledge that EPA has been adequately informed of the information.

²⁷⁶ TSCA Section 4 authorizes EPA to require testing of chemicals by manufacturers, importers and processors where risks or exposures of concern are found. TSCA Section 5 provides for pre-manufacture notification and review by EPA for new chemical substances before manufacture and entry into U.S. commerce. EPA has authority to issue Significant New Use Rules (SNURs) under this section.

²⁷⁷ N-Methylpyrrolidone (NMP), chlorinated paraffins, flame retardants, 1, 4-dioxane and 1-Bromopropane

In FY 2014, the agency released final risk assessments, the first in 28 years, for the chemicals Trichloroethylene (TCE), Antimony Trioxide (ATO), Methylene Chloride (DCM) and HHCB²⁷⁸. The assessments of TCE and DCM indicated human health risks, which will be addressed by regulatory and/or non-regulatory actions, while the others did not find risks to human health or the environment. These accomplishments will hasten progress toward the strategic target to address all original Work Plan Chemicals by the end of FY 2018.

Specific activities planned for FY 2016 include:

- Initiating assessments of additional Work Plan Chemicals;
- Completing risk assessments for 10 additional TSCA Work Plan Chemicals, bringing the cumulative total of completed risk assessments to 21; and
- Developing new tools for hazard and exposure identification and characterization while at the same time improving existing tools to better assess risks from existing chemicals. This work is done using data for both existing and new chemicals.

The EPA is planning to allocate \$16,545.0 and 66.5 FTE to this work area in FY 2016.

3) Reducing Chemical Risks:

In FY 2016, the resources requested will support the agency's portfolio of risk management actions, including:

- Advancing, as appropriate, risk management actions in response to completed risk assessments of TSCA Work Plan chemicals;
- Implementing regulations for the TSCA Title VI Formaldehyde Standards for Composite Wood Products Act (Public Law 111-199), which are anticipated to be finalized in FY 2015. Title VI establishes national emission standards for formaldehyde in new composite wood products;
- Identifying safer alternatives for selected chemicals;
- Developing a final rule revising certain use authorizations for Polychlorinated Biphenyls (PCBs) and continuing efforts to provide information to school administrators and building managers for effectively managing PCBs in caulk²⁷⁹ and replacing PCB-containing fluorescent light ballasts²⁸⁰;
- Continuing to encourage reductions in the use of mercury in various products such as non-fever thermometers; providing information regarding mercury in products, such as

²⁷⁸ HHCB is an abbreviation for 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta- \square -2-benzopyran.

²⁷⁹ See <http://www.epa.gov/pcbsincaulk/>

²⁸⁰ See <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/ballasts.htm>.

information on proper storage of mercury waste²⁸¹; continuing to implement the Mercury Export Ban Act (MEBA)²⁸²; and providing responses to any requests for exemption from applicable export prohibitions;

- Continuing to work closely with other federal agencies to coordinate efforts on addressing identified chemical risks, ensuring that children’s health and impacts on minorities, low income and indigenous populations are considered consistent with EPA’s responsibilities under Executive Order 13045.²⁸³

For more information on the EPA’s efforts to assess and act on existing chemicals, please see <http://www.epa.gov/oppt/existingchemicals/>.

The EPA is planning to allocate \$10,781.0 and 39.3 FTE to this work area in FY 2016.

New Chemicals Program:

In FY 2016, the EPA will continue reviewing new chemical submissions to determine whether the chemicals may pose unreasonable risk to human health or the environment if they were to enter U.S. commerce, and taking steps, where needed, to prevent such risks. Each year, the EPA assesses and manages, as necessary, the potential risks from approximately 1,000 new chemicals, including nanoscale materials, and products of biotechnology prior to their entry into the marketplace. As part of this process, work will proceed on updating test methods and guidelines and updating new chemicals categories (which help expedite reviews).

For more information, please see www.epa.gov/opptintr/newchems.

The EPA is planning to allocate \$18,218.0 and 86.2 FTE to this work area in FY 2016.

Performance Targets:

Measure	(C19) Percentage of CBI claims for chemical identity in health and safety studies reviewed and challenged, as appropriate, as they are submitted.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			100	100	100	100	100	100	Percent
Actual			100	100	100	100			

Measure	(RA1) Annual number of chemicals for which risk assessments are finalized through EPA's TSCA Existing Chemicals Program.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target						3	7	10	Risk Assessments Completed
Actual						4			

²⁸¹ See <http://www.epa.gov/mercury/>.

²⁸² MEBA prohibits the export of elemental mercury as of January 1, 2013, among other requirements for EPA, DOE, and other federal agencies.

²⁸³ <http://www.gpo.gov/fdsys/pkg/FR-1997-04-23/pdf/97-10695.pdf>

Measure	(247) Percent of new chemicals or organisms introduced into commerce that do not pose unreasonable risks to workers, consumers, or the environment.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	100	100	100	100	100	100	100	100	Percent
Actual	97	91	100	100	100	95			

Measure	(D6A) Reduction in concentration of PFOA in serum in the general population.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				1	No Target Established	25	No Target Established	41	Percent Reduction
Actual				32	Biennial	Data Avail 10/2016			

The annual performance measure tracking the percent of new chemicals or organisms introduced into commerce that do not pose unreasonable risk to human health or the environment enables the EPA to monitor the effectiveness of its New Chemicals Program as a gatekeeper. This measure tracks EPA efforts to analyze incoming TSCA 8(e) notices of substantial risk to determine if they are related to previously-reviewed new chemicals, and then check the accuracy of New Chemicals Program review and analysis, allowing EPA to make process improvements for future review of new chemicals. The agency recognizes that this approach does not involve systematic review of all PMN-reviewed chemicals, but believes that it is an efficient approach for using available information to assess the effectiveness of the EPA's new chemicals risk screening and decision-making processes.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,469.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$2,175.0/ - 4.4 FTE) This program change reflects a reduction in resources for Obtaining, Managing and Making Chemical Information Public resulting from completing the review of backlogged Confidential Business Information (CBI) claims for health and safety studies, and reducing the amount of additional data that can be incorporated into the ChemView portal, which provides health and safety studies as well as other chemical information to the public.
- (-\$1,125.0 / - 2.3 FTE) This program change reflects a reduction in resources for Reducing Chemical Risks activities. This decrease will delay some development and implementation of risk management actions for TSCA Work Plan chemicals and other chemicals such as PCBs, formaldehyde, and mercury in order to complete additional risk assessments, the first step towards effective risk management.

Statutory Authority:

Toxic Substances Control Act, 15 U.S.C. 2601 et seq. -- Sections 1-31. Pollution Prevention Act of 1990, 42 U.S.C. et seq. -- Sections 6601-6610.

Pollution Prevention Program

Program Area: Toxics Risk Review and Prevention

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Promote Pollution Prevention

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$15,056.4</i>	<i>\$13,114.0</i>	<i>\$13,416.0</i>	<i>\$302.0</i>
Total Budget Authority / Obligations	\$15,056.4	\$13,114.0	\$13,416.0	\$302.0
Total Workyears	67.1	58.9	58.1	-0.8

Program Project Description:

Implementing the Pollution Prevention Act (PPA) of 1990, the Pollution Prevention (P2) program is one of the EPA’s primary tools for advancing environmental stewardship and sustainability by federal, state and tribal governments; businesses; communities and individuals. The P2 program seeks to alleviate environmental problems by achieving significant reductions in the generation of hazardous releases to air, water, and land; reductions in the use or inefficient use of hazardous materials; reductions in the generation of greenhouse gases; and reductions in the use of water. At the same time, the P2 Program helps businesses and others reduce costs as a result of implementing these preventative approaches. The P2 program’s efforts advance the agency’s priorities to pursue sustainability, take action on climate change, make a visible difference in communities, and ensure chemical safety. The P2 program is augmented by a counterpart P2 Categorical Grants Program in the State and Tribal Assistance Grants (STAG) account.

The P2 Program accomplishes its mission by:

- Fostering the development of P2 solutions to environmental problems that eliminate or reduce pollution, waste and risks at the source, such as: cleaner production processes and technologies; safer, “greener” materials and products; and improved practices; and
- Promoting the adoption, use and market penetration of those solutions through such activities as providing technical assistance and demonstrating the benefits of P2 solutions.

For more information about the EPA’s P2 program, please see <http://www.epa.gov/p2/>.

FY 2016 Activities and Performance Plan:

Foster the Development of P2 Solutions

The P2 program fosters the development of P2 solutions by developing and applying criteria and assessment tools to drive P2 innovation and by developing and applying practices that prevent pollution. Activities planned for FY 2016 include:

- Work conducted by the Safer Products Labeling program²⁸⁴ (SPLP), which provides information that leaders in industry can use to move to safer chemical alternatives. The program rewards industry for using safer chemicals by highlighting their participation in multi-stakeholder partnerships and differentiating products that meet strict SPLP standards. In FY 2016, the program will continue compiling its tools and methodologies for identifying safer alternatives for use by stakeholders and other governments. The program will continue coordinated outreach with partners on the program's new logo launched in FY 2015 to better communicate the health and environmental benefits of labeled products to consumers; federal, state and local government procurement officials; and institutional and industrial purchasers. In addition, the SPLP will expand into additional product categories.
- Work conducted by the Environmentally Preferable Purchasing (EPP) program²⁸⁵, which participates in processes to develop or revise voluntary consensus standards for a variety of product categories including flooring, roofing, carpets and textiles. In FY 2016, the EPP program will work toward the implementation of guidelines intended to provide a transparent, fair and consistent approach to using non-governmental environmental performance product standards and eco-labels in federal purchasing. In FY 2016, the program will continue its focus on electronic products by enhancing existing environmental benefits calculators and developing new ones for recognized standards; the environmental benefits calculators highlight potential environmental benefits from the purchase of electronic products that meet environmental voluntary consensus standards.
- Work conducted by the Green Chemistry program²⁸⁶, which fosters the sustainable design of chemical products and processes. The Green Chemistry program will help to reduce the generation and use of hazardous substances by administering the Presidential Green Chemistry Challenge. During the 19 years of the program (through 2014), EPA has received more than 1,500 nominations and presented awards to 98 technologies, demonstrating the interest amongst stakeholders to be recognized at the national level for developing green chemistry solutions. Over the lifetime of the program, winning technologies have been responsible for reducing the use or generation of more than 826 million pounds of hazardous chemicals, saving 21 billion gallons of water, and eliminating 7.8 billion pounds of carbon dioxide equivalent releases to air. In FY 2016, the EPA will develop training materials to help state, local, and industry stakeholders

²⁸⁴ www.epa.gov/dfe.

²⁸⁵ <http://www.epa.gov/epp/>.

²⁸⁶ <http://www.epa.gov/greenchemistry/index.html>.

acquire information and understanding of the business and technical benefits from these processing, manufacturing, and materials innovations.

- Work conducted by the Green Engineering program, which fosters identification and implementation of more environmentally beneficial processes by developing tools and assisting the regions, as requested, in application of those tools to specific processes. In FY 2016, this program will continue to develop and disseminate green engineering materials management tools and methodologies, including the P2 Program's environmental benefit calculators. These tools can be used by various stakeholders and the P2 program to develop a compelling P2 business case for remanufacturing hazardous secondary material, especially solvents, using the new Definition of Solid Waste remanufacturing exclusion under the Resource Conservation and Recovery Act.
- Work to assist businesses, particularly small- and medium-sized firms, identify opportunities to deploy P2 solutions, and to provide upstream support to the state P2 technical assistance providers that are the agency's partners in that effort. In FY 2016, the program as well as states, tribes and other grantees may choose to focus on one or more of the following P2 national emphasis areas: climate change mitigation, food manufacturing, or community level hazardous materials source reduction. To further advance these P2 technical assistance objectives, in FY 2016 the EPA will also customize, develop and deliver training to identify and deploy green chemistry and engineering solutions through a range of incentive, regulatory and other approaches.

The EPA is planning to allocate \$4,569.0 and 18.8 FTE to this strategy in FY 2016.

Promote the Adoption, Use and Market Penetration of P2 Solutions

The P2 program promotes increased adoption, use and market penetration of the P2 solutions described above, by providing and promoting technical assistance, increasing market penetration of established P2 solutions by demonstrating benefits of P2 solutions, and creating and communicating incentives for their adoption. Activities planned for FY 2016 include:

- Work conducted by the Economy, Energy and Environment (E3) Initiative²⁸⁷ and the Green Suppliers Network (GSN), which collaborates with five other federal agencies to provide technical assistance to identify environmental improvements and cost savings and to help manufacturers identify resources with which to implement sustainable changes to their business practices while reducing business costs and increasing job growth and competitiveness. In FY 2016, the EPA will continue to work with its federal partners and state pollution prevention programs to conduct facility-specific assessments for small- and medium-sized suppliers and increase the implementation rate of E3 solutions to help suppliers reduce business costs, improve productivity and efficiency, and measure greenhouse gas (GHG) emissions.
 - The E3 Initiative and GSN are expected to have grown by FY 2016 to include more than 35 state partners, by leveraging existing resources across the E3 federal

²⁸⁷ www.e3.gov

agency partners. In FY 2016, E3 and GSN will work with the Department of Energy to strengthen technical assistance offerings in the energy efficiency and environmental areas and will continue to work with the USDA to expand the E3 framework into agriculturally-based manufacturing.

- The EPA also will continue to encourage increasing the percentage of E3 assessments that are funded by local community resources and private financial support and investment, including non-profits, foundations, impact investors, social bonds, and in-kind service funding. One of E3's key metrics is the reduction of GHG emissions.
- Continued work initiated in FY 2014 by the Green Chemistry program to analyze green chemistry innovations (particularly those nominated for awards) and work with federal partners and external stakeholders to facilitate market adoption and penetration of new commercially successful chemistries and technologies. With several hundred Presidential Green Chemistry Challenge awardees and nominees from recent years, there are substantial opportunities to pursue the goal of market-oriented environmental and economic progress through increased adoption of these P2 innovations.
- Allowing companies making products that are safer for the environment to communicate their safer chemical leadership to customers through the use of the logo under its Safer Product Labeling Program. More than 500 manufacturers have earned the right to display the logo on approximately 2,500 cleaning and other products that are safer than similar products currently on the market. To enhance transparency, EPA has listed on the program's website the non-confidential chemicals that meet applicable program criteria and that are allowed in program's labeled products. This Safer Chemical Ingredients List contains more than 650 safer chemicals, the EPA will continue to update this list in FY 2016 as the program evaluates additional chemical ingredients and approves products for the use of the Safer Product Labeling Program's new logo launched in FY 2015.
- Leadership provided by the Green Engineering program in the promotion and use of sustainability engineering education materials, including life-cycle and risk-based assessment tools, in universities. For example, two textbooks published with the support of the EPA, *Sustainable Engineering: Concepts, Design and Case Studies* and *Green Engineering: Environmentally Conscious Design of Chemical Processes*, have been used in more than 90 universities and colleges in the U.S and internationally.
- Technical assistance provided to industry (primarily small- and medium-sized businesses), government and the public directly by the EPA's Regional Offices, through multi-region collaborative efforts and through Source Reduction Assistance (SRA) grants issued annually on a competitive basis. In FY 2016, the program as well as states, tribes and other grantees may choose to focus on one or more of the following P2 national emphasis areas: climate change mitigation, food manufacturing, or community level hazardous materials source reduction.

The EPA is planning to allocate \$8,847.0 and 39.3 FTE to this strategy in FY 2016.

Performance Targets:

Measure	(P26) Number of safer chemicals and safer chemical products.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target							475	475	Chemicals/ Products
Actual									

Measure	(262) Gallons of water reduced through pollution prevention.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	1,790	781	783	785	771	932	1,156	1,390	Gallons (Millions)
Actual	650	1,472	1,397	1,175	936	Data Avail 10/2015			

Measure	(263) Business, institutional and government costs reduced through pollution prevention.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	130	253.9	268.5	196.9	195.6	133.3	362.6	445.6	Dollars Saved (Millions)
Actual	449.7	289.8	313.8	718.8	425.4	Data Avail 10/2015			

Measure	(264) Pounds of hazardous materials reduced through pollution prevention.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	192	188.1	199.6	88.7	71.6	23.4	204.2	214.2	Pounds (Millions)
Actual	365.6	301.8	222.7	819.5	210.1	Data Avail 10/2015			

Measure	(297) Metric Tons of Carbon Dioxide Equivalent (MTCO2Eq) reduced or offset through pollution prevention.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	1.8	2.11	2.19	1.74	1.46	1.0	2.0	2.2	MMTCO2Eq
Actual	2.7	2.4	2.0	6.1	2.25	Data Avail 10/2015			

The P2 program aggregates results from all of the activities described above within a transparent and consistent measurement framework focused on five common measures:

- Reduced use of hazardous materials;
- Reduced use of water;
- Reduced emission of greenhouse gases;
- Reduced costs to businesses, governments and institutions; and,
- Increase in Safer Chemicals and Safer Chemical Products

The program will be working to launch the redesign of the SPLP logo by the spring of FY 2015 and to develop an analytical methodology to assess the new logo's effectiveness. Efforts to conduct that assessment will commence in FY 2016.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$426.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$124.0 / -0.8 FTE) This reduction will reduce the ability of the program to develop and increase the use of P2 solutions.

Statutory Authority:

Pollution Prevention Act of 1990, 42 U.S.C. et seq. -- Sections 6601-6610; Toxic Substances Control Act (TSCA), 15 U.S.C. 2601 et seq. -- Section 10.

Toxic Substances: Lead Risk Reduction Program

Program Area: Toxics Risk Review and Prevention

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$14,648.9</i>	<i>\$13,719.0</i>	<i>\$13,726.0</i>	<i>\$7.0</i>
Total Budget Authority / Obligations	\$14,648.9	\$13,719.0	\$13,726.0	\$7.0
Total Workyears	79.2	75.4	72.8	-2.6

Program Project Description:

Recent biomonitoring data show that significant progress has been made in the continuing effort to eliminate childhood lead poisoning as a public health concern. At the same time, studies have indicated that children's health may be adversely affected even at extremely low blood levels.²⁸⁸ In response to this information and the fact that approximately 38 million homes in the U.S. still have lead-based paint,²⁸⁹ the EPA is working to reduce the number of children with blood lead levels of five micrograms per deciliter or higher. The Lead program also targets reduction of disparities in blood lead levels between low-income children and non-low-income children.²⁹⁰

The EPA's Lead Risk Reduction program contributes to the goal of eliminating childhood lead poisoning by:

- Establishing a national pool of certified firms and individuals who are trained to carry out renovation and repair and painting projects while adhering to the lead-safe work practice standards, and to minimize lead dust hazards created in the course of such projects;
- Establishing standards governing lead hazard identification and abatement practices and maintaining a national pool of professionals trained and certified to implement those standards; and,
- Providing information and outreach to housing occupants and the public so they can make informed decisions and take actions about lead hazards in their homes.

²⁸⁸ U.S.EPA. Air Quality Criteria for Lead (September 29, 2006)

<http://cfpub.epa.gov/ncea/CFM/recorddisplay.cfm?deid=158823>.

Rogan WJ, Ware JH. Exposure to lead in children – how low is low enough? N Engl J Med.2003;348(16):1515-1516
<http://www.precaution.org/lib/rogan.nejm.20030417.pdf>.

Lanphear BP, Hornung R, Khoury J, et al. Low-level environmental lead exposure and children's intellectual function: an international pooled analysis. Environ Health Perspect. 2005; 113(7):894-899

<http://www.pubmedcentral.nih.gov/articlerender.fcgi?doi=10.1289/ehp.7688>.

²⁸⁹ Jacobs, D.E.; Clickner, R.P.; Zhou, J.Y.; Viet, S.M.; Marker, D.A.; Rogers, J.W.; Zeldin, D.C.; Broene, P.; and Friedman, W. (2002). The prevalence of lead-based paint hazard in U.S. housing. Environmental Health Perspectives, 110(10): A599-A606.

²⁹⁰ Centers for Disease Control and Prevention. Fourth Report on Human Exposure to Environmental Chemicals, Updated Tables, (September, 2012). Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. <http://www.cdc.gov/exposurereport/>.

The Lead Risk Reduction program is augmented by a counterpart Lead Categorical Grant program in the State and Tribal Assistance Grants (STAG) account.

For more information, please see <http://www.epa.gov/lead>.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to implement the Renovation, Repair and Painting (RRP) Rule to address lead hazards created by renovation, repair and painting activities in homes and child-occupied facilities.²⁹¹ Through December 31, 2014, fourteen states and one tribe have been authorized to administer and enforce this program. In the remaining non-authorized states, tribes and territories, the EPA will continue to accredit training providers, track training class notifications and certify renovation firms. The EPA also will assist in the development and review of state and Tribal applications for authorization to administer training and certification programs, provide information to renovators and homeowners, provide oversight and guidance to all authorized programs and disseminate model training courses for lead-safe work practices. Also, as of December 31, 2014, there were 479 accredited RRP training providers and more than 140,000 certified renovation firms.

As part of a 2009 settlement, the EPA agreed to issue a proposed rule to regulate: (1) the exterior renovation of public and commercial buildings and (2) the interior renovation of public and commercial buildings. Subsequently, on September 7, 2012, the EPA and the litigants revised the previous agreement to merge the interior and exterior rulemaking into a combined proposal to be signed by July 1, 2015, unless the EPA determines that such renovations do not create a lead-based paint hazard, and to take final action no later than 18 months after publication of the proposal. In September, 2014, the EPA determined that the agency would not meet the July 1, 2015 deadline for proposal. The agency plans to continue work on the proposed rule in FY 2016 and, after completion of the peer review process, industry survey and Small Business Advocacy Review process revisit the timing of this action.

Revisit the Lead Dust Standard and Definition of Lead-Based Paint

On August 10, 2009, the EPA received a petition requesting the agency to lower lead dust hazard standards and to modify the definition of lead-based paint in its regulations promulgated under Sections 401 and 403 of the Toxic Substances Control Act (TSCA). The EPA responded to the petition on October 22, 2009, agreeing to revisit the current lead dust hazards standard and to work with the U.S. Department of Housing and Urban Development (HUD) to reconsider the definition of lead-based paint in its regulations.²⁹²

In October 2012, HUD published a Notice of Submission in the Federal Register informing the public that HUD proposes to conduct an Information Collection Request (ICR) of HUD Lead Hazard Control Grantees to obtain information about their work practices. This ICR will inform EPA's decision making regarding any potential revisions to the lead dust hazard standards.

²⁹¹ <http://www.epa.gov/lead/pubs/faq2.htm>.

²⁹² <http://www.epa.gov/opptintr/chemtest/pubs/petitions.html>.

Provided the ICR is completed and results are available, the EPA plans in FY 2016 to make use of the information collected in its deliberations on potential changes to the Lead Dust Standard.

Implement the Lead-based Paint Activities (Abatement, Risk Assessment and Inspection) Rule

In FY 2016, the EPA will continue to implement the Lead-based Paint Activities (Abatement, Risk Assessment and Inspection) Rule by administering the federal program to review and certify firms and individuals and to accredit training providers. Additionally, the agency will continue to review and process requests by states, territories and tribes for authorization to administer the lead abatement program in lieu of the federal program. Through December 31, 2014, thirty-nine states and territories, four tribes, the District of Columbia and Puerto Rico have been authorized to run the lead-based paint abatement program.

Provide Education and Outreach

In FY 2016, the agency will continue to provide education and outreach to the public on the hazards of lead-contaminated paint, emphasizing compliance assistance and outreach to support implementation of the RRP rule and to increase public awareness about preventing childhood lead poisoning.

Efforts will continue to help educate low income communities on lead hazards and the importance of lead poisoning prevention. Finally, the EPA will continue to provide support to the National Lead Information Center (NLIC) to disseminate information to the public through a telephone hotline and in electronic form.

Information on state and Tribal grants for implementation of lead programs is presented in the Categorical Grant: Lead budget justification narrative.

Performance Targets:

Measure	(008) Percent of children (aged 1-5 years) with blood lead levels (>5 ug/dl).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target		3.5	No Target Established	1.5	No Target Established	1.0	No Target Established	1.0	Percent
Actual		2.6	Biennial	2.1	Biennial	Data Avail 10/2016			

Measure	(009) Cumulative number of active certified Renovation Repair and Painting firms								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target		100,000	100,000	140,000	140,000	138,000	145,000	152,250	Firms
Actual		59,143	114,834	126,323	133,587	139,702			

Measure	(10D) Percent difference in the geometric mean blood level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	No Target Established	28	No Target Established	13	No Target Established	20	No Target Established	25	Percent
Actual	Biennial	28.4	Biennial	34.8	Biennial	Data Avail 10/2016			

Measure	(10A) Annual percentage of lead-based paint certification and refund applications that require less than 20 days of EPA effort to process.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	92	92	92	95	95	95	95	95	Percent
Actual	92	96	95	97	99	100			

In FY 2016, the EPA will work to ensure that the percentage of children with blood lead levels above 5 micrograms per deciliter does not rise above 1.0 percent, the level set as the FY 2014 target. The agency intends to sustain this level of performance through FY 2018 in accordance with the *FY 2014-2018 EPA Strategic Plan*. Data are obtained from the Centers for Disease Control and Prevention’s (CDC’s) National Health and Nutrition Examination Survey (NHANES), the primary U.S. database for national blood lead statistics.

Additionally, the Lead program tracks the disparities in blood lead levels between low-income children and non-low-income children. The EPA's long-term goal, as reflected in the *FY 2014-2018 EPA Strategic Plan*, is to close the gap between the geometric mean blood lead levels among low-income children versus non-low-income children, from a baseline percentage difference of 28.4 percent (as calculated from 2007-2010 NHANES sampling data) to a difference of 10 percent by FY 2018.

In FY 2010, the Lead program introduced a supporting output measure that tracks the number of firms certified in Renovation, Repair and Painting activities. The EPA’s goal is to increase the number of certified firms from zero in FY 2009 to 152,250 in FY 2016.

The Lead program’s annual efficiency measure tracks improvements in processing time for certification applications for lead-based paint professionals and for refund applications. Since FY 2004, the percent of certification applications processed in under 20 days has increased from 87 to 100 percent as of FY 2014.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$535.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$138.0) This program change reduces resources that were needed in FY 2015 to conduct a Lead-based Paint Hazard Survey of Public and Commercial Buildings and provide other rulemaking support activities necessary to meet a court-ordered settlement date to complete a rulemaking for Renovation Repair and Painting Activities in Public and Commercial Buildings. In FY 2016, the survey and other pre-rulemaking activities will be coming to an end and the associated resources are no longer necessary.
- (-\$390.0 / - 2.6 FTE) This program change reflects a decrease to lead risk reduction education and outreach activities.

Statutory Authority:

Toxic Substances Control Act (TSCA), 15 U.S.C. 2601 et seq. – Sections 401-412.

Program Area: Underground Storage Tanks (LUST / UST)

LUST / UST

Program Area: Underground Storage Tanks (LUST / UST)
 Goal: Cleaning Up Communities and Advancing Sustainable Development
 Objective(s): Restore Land; Preserve Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$11,979.2</i>	<i>\$11,295.0</i>	<i>\$11,657.0</i>	<i>\$362.0</i>
Leaking Underground Storage Tanks	\$10,031.9	\$9,240.0	\$9,409.0	\$169.0
Total Budget Authority / Obligations	\$22,011.1	\$20,535.0	\$21,066.0	\$531.0
Total Workyears	108.4	109.5	108.1	-1.4

Program Project Description:

These resources support the EPA's staff and expenses to direct and manage the national program to prevent releases from underground storage tanks (USTs). This work supports the EPA's cross-agency strategy of making a visible difference in communities and the people living and working near UST sites across the country by working with state,²⁹³ Tribal, and local partners to prevent releases from underground storage tanks and protect precious water resources.

Staff and program activities provide technical support and management for LUST prevention and UST state and Tribal assistance grants. These resources support core program activities and the mandatory three year inspection requirement under Title XV, Subtitle B of the Energy Policy Act of 2005 (EPAct).

Preventing UST releases is more efficient and less costly than cleaning up releases after they occur. Since the beginning of the UST program, preventing UST releases has been one of the program's primary goals. Potential adverse effects from chemicals such as benzene, methyl-tertiary-butyl-ether, alcohols, or lead scavengers in gasoline, and the cost to clean up these contaminants, underscore the importance of preventing UST releases and complying with UST requirements.²⁹⁴ Even a small amount of petroleum released from an underground storage tank can contaminate groundwater, the drinking water source for many Americans. Over the history of the UST program, there have been over 521,000 releases confirmed and thousands of new releases are discovered each year, yet the EPA and our partners have made major progress in reducing the number of new releases.

Over the duration of the program, the EPA found that lack of proper UST system operation and maintenance is a main cause of releases.^{295,296} As a result, the EPA in FY 2012 proposed

²⁹³ States as referenced here also include the District of Columbia and the five territories as described in the definition of state in the Solid Waste Disposal Act.

²⁹⁴ See Title XV, Subtitle B of the Energy Policy Act of 2005.

²⁹⁵ Petroleum Releases at Underground Storage Tank Facilities in Florida, Peer Review Draft, US EPA/OUST, March 2005.

²⁹⁶ Evaluation of Releases from New and Upgraded Underground Storage Tanks, Peer Review Draft, US EPA/OUST, August 2004.

revisions to the UST regulations that address these and other important issues.²⁹⁷ While the agency expects to finalize the revised UST regulations in FY 2015, the EPA and the UST stakeholders will implement these new provisions in FY 2016.

Twice each year, the EPA collects data regarding UST performance measures and makes the data publicly available. The data include information such as the number of active and closed tanks, releases confirmed, cleanups initiated and completed, facilities in compliance with UST requirements, and inspections. The EPA compiles the data and presents it in table format for all states, territories and Indian country. See www.epa.gov/oust/cat/camarchv.htm.

Since 2007, the EPA has placed an increased emphasis on ensuring compliance through increased frequency of inspections and other EPAct provisions.²⁹⁸ Each of the nation's 571,000 federally regulated USTs must be inspected every three years.²⁹⁹ During this time, compliance rates have increased and there has been a significant decrease in newly confirmed releases.

The annual number of confirmed UST releases dropped about 10 percent from 7,570 in FY 2007 to 6,847 in FY 2014. Confirmed releases remain low due to significant release prevention efforts, such as frequent inspections. Continued rigorous prevention and detection activities are necessary to maintain our progress in limiting future confirmed releases.

FY 2016 Activities and Performance Plan:

End of year FY 2014 data show:

- Releases are continuing to occur, with 6,847 reported for FY 2014.
- The program exceeded the FY 2014 performance measure target of 70 percent significant operational compliance; at the end of FY 2014, 72.5 percent of the approximately 205,000 federally regulated UST facilities were in compliance. However, approximately 28 percent still need to attain and maintain compliance.

In FY 2016, the UST program will primarily focus on:

- Maintaining efforts to meet the statutory mandate for the EPA or states to inspect every UST at least once every three years, and implementing other Energy Policy Act of 2005 requirements, such as operator training, prohibiting delivery for non-complying facilities, and secondary containment of tanks and piping, Providing technical assistance, compliance help, and expert consultation to state, Tribal, and other agency partners on both policy and technical matters,
- Strengthening efforts to ensure effective financial assurance mechanisms,
- Ensuring an effective and safe transition to alternative fuels,
- Implementing the UST program in Indian country,

²⁹⁷ See <http://www.gpo.gov/fdsys/pkg/FR-2011-11-18/pdf/2011-29293.pdf>.

²⁹⁸ See confirmed releases and compliance rate charts in the LUST prevention program project description. For more information, see http://www.epa.gov/oust/fedlaws/epact_05.htm.

²⁹⁹ See <http://www.epa.gov/swrust1/cat/ca-13-34.pdf>.

- Working with communities to bring formerly contaminated petroleum brownfields properties into productive use, and
- Implementing the revised UST regulations, once finalized.

As stated in the Association of State and Territorial Solid Waste Management Official's *Development and Implementation of State Tanks Core Programs Report*,³⁰⁰ released June 2014, states spend the majority of their federal funds on inspection and enforcement. In FY 2016, the EPA anticipates that several states may no longer be in compliance with the EPAct provision requiring each UST to be inspected at least once every three years due to declining state and federal program resources. The EPA will use available funding to comply as much as possible with this requirement. Implementing operator training is another EPAct provision that will draw heavily on the EPA and state resources. In FY 2016, providing Environmental Program and Management funding to support these activities will be an important priority for the prevention program.

The EPA will provide technical assistance, compliance help, and expert consultation to state, Tribal, and other agency partners on both policy and technical matters. This support will strengthen our network of federal, state, Tribal, and local partners (specifically communities and people living and working near UST sites) and ensure implementation of the UST regulations, including any revisions. The EPA will prepare guidance materials, provide training opportunities, and develop assistance tools, which will better prepare UST inspectors and better inform UST owners.

The EPA is strengthening efforts to ensure required financial assurance mechanisms³⁰¹ are effective and create incentives for improved compliance by UST owners and operators. In FY 2016, the EPA will continue to better ensure compliance with financial assurance requirements collaboration with state, and other interested stakeholders. The EPA will strive to improve the effectiveness of the two most common UST program financial assurance mechanisms, insurance and state funds, as well as other mechanisms the workgroup identifies.

The EPA is committed to ensuring an effective and safe transition to alternative fuels, which includes identifying potentially widespread and avoidable environmental and health impacts. As a result, the EPA will continue to work with states and tribes to assess and ensure UST compatibility with alternative fuels. This is particularly important given that the EPA's approval of additional ethanol mixtures, such as E15 for use in certain vehicles, will result in some petroleum retailers storing fuel blends containing greater than 10 percent ethanol in their USTs. In FY 2016, the EPA will respond to the increased use of biofuels by implementing the revised UST regulations, once finalized, and through continued assessment of biofuels compatibility.

The EPA is primarily responsible for implementing the UST program in Indian country in partnership with tribes and maintaining information on USTs located in Indian country. With few exceptions, tribes do not have independent UST program resources. As a result, the EPA's funding is critical for advancing the UST prevention and compliance program in Indian country.

³⁰⁰ See http://www.astswmo.org/Files/Policies_and_Publications/Tanks/New_2014-06-ASTSWMO_Tanks_Core_Report_FINAL2.pdf.

³⁰¹ See compatibility requirement at 40 CFR 280.32.

The EPA is working with communities to bring formerly contaminated properties into productive use. Many petroleum brownfields sites, predominately consisting of old gas stations, blight the environmental and economic health of surrounding neighborhoods. While the UST program and the Brownfields program jointly focus attention and resources on cleaning up and reusing petroleum-contaminated brownfield sites, the UST program provides technical expertise on petroleum-specific brownfields efforts. The UST program contributes to area-wide planning approaches that can help communities revitalize petroleum sites. In FY 2016, the EPA will continue implementing our Petroleum Brownfields Action Plan.³⁰²

Once the revisions to the UST regulations are finalized, the EPA will work with states and tribes to implement those regulations, and to provide guidance, training and assistance to the regulated community to improve understanding and compliance.

Performance Targets:

Work under this program also supports performance results in LUST Prevention and is available in the Eight-Year Performance Array.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$479.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$117.0 / -1.0 FTE) This net program change decreases the agency's ability to provide tribes with compliance assistance and support. This change is offset by a small increase that will go toward maintaining efforts to meet the statutory mandate for the EPA or states to inspect every UST at least once every three years.

Statutory Authority:

Solid Waste Disposal Act, as amended by the Energy Policy Act, 42 U.S.C. 6901 et seq. – Section 8001 and Sections 9001 -9011.

³⁰² For more information, see: www.epa.gov/oust/pubs/petrobfactionplan2013.pdf.

Program Area: Water: Ecosystems

National Estuary Program / Coastal Waterways

Program Area: Water: Ecosystems

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$24,385.2	\$26,723.0	\$27,310.0	\$587.0
Total Budget Authority / Obligations	\$24,385.2	\$26,723.0	\$27,310.0	\$587.0
Total Workyears	46.2	45.8	43.6	-2.2

Program Project Description:

The National Estuary Program (NEP)/Coastal Waterways Programs works to restore the physical, chemical, and biological integrity of estuaries of national significance and coastal watersheds by protecting and restoring water quality, habitat, and living resources.³⁰³

The water quality and ecological integrity of estuarine and coastal areas is critical to the economic vitality of the United States (U.S.). While the estuarine regions of the U.S. comprise just 12.6 percent of U.S. land area, they contain 43 percent of the U.S. population and provide 49 percent of all U.S. economic output.³⁰⁴ The economic value of coastal recreation in the United States – for beach going, angling, bird watching, and snorkeling/diving – has been conservatively estimated by NOAA to be in the order of \$20 billion to \$60 billion annually.³⁰⁵ When natural resources such as fisheries are adversely impacted by upstream and coastal development, so too are the livelihoods of those who live and work in estuarine watersheds.

Community Impact:
 The Mobile Bay NEP recently completed a one million dollar project addressing serious erosion and sedimentation problems for Joe's Branch of the D'Olive Creek watershed. This project used funds from the State of Alabama, EPA Section 319 funds as well as EPA Section 320 NEP and local funds. The project was widely supported locally and has successfully addressed the degradation of this waterbody. This is one example of the type of projects that will be accomplished using the FY 2016 requested funds.

FY 2016 Activities and Performance Plan:

- In FY 2016, the EPA will provide \$16.8 million in Clean Water Act Section 320 grants for 28 National Estuary Programs (NEPs) (\$600 thousand per NEP). This funding continues the EPA support for implementation of the NEP Comprehensive Conservation and Management Plans.

³⁰³ For more information, visit <http://www.epa.gov/owow/estuaries>.

³⁰⁴ A 2007 Restore America's Estuaries study, "The Economic and Market Value of Coasts and Estuaries."

³⁰⁵ Pendleton, Lindwood. The Economic and market Value of Coasts and Estuaries: What's at Stake. Available at: <https://www.estuaries.org/the-economic-value-of-coasts-a-estuaries.html>.

- The EPA will continue to strengthen the capacity of coastal communities to adapt to the impacts of climate change and increase their resilience. The agency will provide technical assistance and tools for local organizations, including NEPs, to: (1) develop and implement “Climate-Ready Estuary” (CRE) models assessing watersheds’ vulnerabilities to climate change using a CRE tool published in FY 2014; (2) develop and implement climate adaptation strategies; (3) engage and educate coastal stakeholders about climate change impacts to water quality, habitat, and human well-being in their communities. The agency encourages and supports demonstration projects and widely shares examples and lessons learned about climate change adaptation.
- The EPA will explore opportunities to further partner with NOAA on ocean acidification efforts, particularly where NEPs and National Estuarine Research Reserve System sites are nearby.
- Recent improvements in scientific measurement of carbon sequestered in coastal wetlands indicate that preservation and restoration of coastal wetlands can have significant greenhouse gas reduction benefits, while also reducing storm impacts on coastal areas and enhancing habitat and water quality. The existing NEPs are excellent candidates for developing these “Blue Carbon” opportunities. The EPA will work with NEPs to identify and support key coastal restoration projects that can serve as pilot projects featuring different natural, social and economic characteristics.
- In FY 2016, the EPA will analyze data collected during the FY 2015 National Coastal Condition Assessment for the National Coastal Condition Report VI. This report and the preceding five reports in this series are the only statistically-significant measures of coastal water quality that cover both national and regional scales. Information on coastal ecological conditions generated by the National Coastal Condition Reports is used by resource managers to efficiently and effectively target water quality actions and manage those actions to maximize benefits. For example, the California State Water Resources Control Board drew upon data from the National Coastal Condition Assessment and other sources to develop statewide estuarine sediment quality objectives for the State of California.
- The EPA, as the federal chair of the Gulf Hypoxia Task Force, will work with the other federal agencies and the states that are Task Force members to continue implementation of the 2008 Gulf Hypoxia Action Plan. This activity complements other coordination and implementation resources in the Geographic Program: Gulf of Mexico and Surface Water Protection Program. A key goal of the Gulf Hypoxia Action Plan is to improve water quality in the Mississippi River Basin and the Gulf of Mexico by implementing existing and innovative program approaches to reduce nitrogen and phosphorus pollution into the Basin and to the Gulf. Excessive nutrients can have both ecological and human health effects – high nitrate levels in drinking water have been linked to serious illness.³⁰⁶ In addition to the public health risks, the economic costs from impaired drinking water are

³⁰⁶ State-EPA Nutrient Innovations Task Group. (2009). *An Urgent Call To Action Report of the State-EPA Nutrient Innovations Task Group*.
http://water.epa.gov/scitech/swguidance/standards/criteria/nutrients/upload/2009_08_27_criteria_nutrient_nitgreport.pdf.

considerable. Effective nutrient reduction in the Gulf will be coordinated with other Hypoxia Task Force agencies, such as the U.S. Department of Agriculture and U.S. Geological Survey, in high-priority watersheds.

Performance Targets:

Measure	(202) Acres protected or restored in National Estuary Program study areas.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	Acres
Actual	125,410	89,985	62,213	114,575	127,594	93,557			

Resources support efforts to achieve the EPA’s goal of protecting and restoring 100 thousand additional acres of habitat in FY 2016 and promoting alignment of National Estuary Program restoration goals with those of Tribal, state, regional, and local agencies. Since 2002, approximately 1.4 million acres of habitat have been protected or restored within the NEP study areas.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$320.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$133.0 / -2.2 FTE) This program change reflects a reduction in NEP oversight and administration. Under the FY 2016 proposal, the EPA will continue to provide national support for protecting and enhancing water quality and living resources in estuaries and coastal watersheds.
- (+\$400.0) This program change reflects an increase in NEP “Blue Carbon” pilot projects. The EPA will continue to work with the NEPs to support key coastal restoration projects that will develop and promote standardized methods to measure and map carbon and will describe and promote best practices for wetland, mangrove, and seagrass projects.

Statutory Authority:

1990 Great Lakes Critical Programs Act; 2002 Great Lakes and Lake Champlain Act; Clean Water Act, Section 320; Estuaries and Clean Waters Act of 2000; Protection and Restoration Act of 1990; North American Wetlands Conservation Act; Water Resources Development Act; 1909 The Boundary Waters Treaty; 1987 Great Lakes Water Quality Agreement; 1987 Montreal Protocol on Ozone Depleting Substances; 1996 Habitat Agenda; 1997 Canada-U.S. Great Lakes Bi-national Toxics Strategy; Coastal Wetlands Planning; U.S.-Canada Agreements.

Wetlands

Program Area: Water: Ecosystems

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$20,629.1	\$21,065.0	\$23,334.0	\$2,269.0
Total Budget Authority / Obligations	\$20,629.1	\$21,065.0	\$23,334.0	\$2,269.0
Total Workyears	138.8	138.9	137.3	-1.6

Program Project Description:

The EPA's Wetlands Protection Program has two primary areas: the Clean Water Act (CWA) Section 404 regulatory program and the state and Tribal development program, both of which use authorities established under the CWA to ensure effective, scientifically based and coordinated efforts to protect the nation's water resources. The Wetlands Protection Program operates under the broad national goal of "no net loss" of wetlands for the Section 404 permit policy and review functions, and strives to increase the quality and quantity of wetlands nationwide.

Major activities of the program include development and dissemination of guidance, information and scientific tools to improve management and public understanding of wetland programs and legal requirements; review of Section 404 permit applications submitted to the U.S. Army Corps of Engineers (Corps) or authorized states; and assistance to support development of state and Tribal wetland protection programs under the CWA.

Wetlands provide numerous functions critical to the nation's public health and environmental integrity. According to one assessment of natural ecosystems, the dollar value of wetlands worldwide was estimated to be \$14.9 trillion.³⁰⁷ Wetlands improve water quality; recharge water supplies, including public drinking water sources; provide many recreational opportunities, including hunting and fishing; reduce flood risks and storm damage; provide fish and wildlife habitat; and support valuable recreational and commercial fishing and shellfish industries. For example, coastal wetlands were estimated in 2008 to provide \$23 billion of storm protection services each year in the United States.³⁰⁸

³⁰⁷ Costanza, et. al. (1997) The value of the world's ecosystem services and natural capital." Nature 387:253-260.

³⁰⁸ Costanza et al. (2008) The Value of Coastal Wetlands for Hurricane Protection. Royal Swedish Academy of Sciences Ambio Vol. 37, No. 4, June 2008.

FY 2016 Activities and Performance Plan:

Implement Clean Water Act Section 404:

The Corps has responsibility for managing the day-to-day permit processes under Section 404 of the CWA across the nation, and the EPA has a statutory role to provide input to the Corps as it develops proposed permits. Also, the EPA has an oversight role in the Section 404 program in the states of Michigan and New Jersey, which have assumed the responsibility for Section 404 permitting in some waters of their respective states. In its national role, the EPA develops and interprets environmental criteria for evaluating permit applications; has final authority to determine the scope of CWA jurisdiction; approves and oversees state assumption; identifies activities that are exempt from permitting; reviews and comments on individual permits; has authority to prohibit, deny or restrict the use of waters as a disposal site (Section 404(c)); can elevate specific proposed Corps permit decisions to Army Headquarters (Section 404(q)); and enforces Section 404 provisions.

The EPA tracks its performance and agency actions regarding Section 404 permit review using a tracking system known as *Data on Aquatic Resources Tracking for Effective Regulation* (DARTER). In FY 2014, the EPA tracked 1,070 Section 404 standard permit public notices for proposed projects in DARTER, and reviewed and sent a total of 226 comment letters on 205 of those projects. For 95 percent of these 205 projects, the EPA sent its comment letter(s) to the Corps within 60 days after the request(s) for comments. Starting in FY 2014, the agency began tracking additional information in DARTER regarding the EPA's comments and environmental improvements related to Section 404 permitting, such as mitigation success.

The agency, working with the Corps and other partners, will continue to implement the joint Corps-EPA Compensatory Mitigation Rule finalized in FY 2008. The EPA's primary goal is to avoid or minimize aquatic resource losses. Where losses are unavoidable, the EPA and the Corps promote using a watershed approach to compensatory mitigation site selection and design, using flexible tools such as mitigation banking and in-lieu fee mitigation programs to help offset lost aquatic resource functions. In partnership with the U.S. Fish and Wildlife Service (USFWS), the EPA will continue emphasis on stream assessment and monitoring in order to develop functionally-based crediting and debiting protocols and ecological performance standards for stream compensatory mitigation projects. The EPA will continue to focus on wetland and stream corridor restoration to regain lost aquatic resources. The EPA and the Corps will provide technical training in targeted regions, in addition to providing our annual training course on mitigation banking and in-lieu fee programs for interagency review teams.

In FY 2016, the EPA will conduct activities pursuant to responsibilities as a member of the Gulf Coast Ecosystem Restoration Council authorized under the RESTORE Act. Activities will include coordinating with the Army Corps of Engineers and other federal, state, and local partners to design and implement RESTORE Act projects, and reviewing proposed activities that require authorization by the Corps under CWA Section 404.

Improve Clean Water Act Review of Surface Coal Mining:

Consistent with the CWA and existing regulation and memoranda, the EPA will collaborate with the Corps, as appropriate, to review proposed discharges of dredged or fill material pursuant to CWA Section 404. It is through this interaction that both the EPA and the Corps work together most effectively to share information, identify issues of concern, and reach environmentally responsible permit outcomes. These actions have resulted in more timely reviews and allowed projects that meet the requirements of the law to proceed under Section 404 permits. The EPA also will continue to coordinate with other EPA, state, and federal programs, including the Section 402 permitting, Section 303 water quality standards, state Section 401 water quality certification, National Environmental Policy Act, and environmental justice programs, to assure more effective and coordinated review of new surface coal mining projects.

The EPA will work to develop and disseminate improved technical information regarding the aquatic resource effects of pollutants from mining-related discharges to waters of the U.S. These activities will enable the agency to assist the Corps in reviewing proposed projects, identifying environmental concerns, minimizing impacts, and working together toward timely and defensible permit decisions that meet the requirements of the law.

Implement Executive Order 13604 for Modernizing Federal Permitting and Review:

Although the agency is not the principal permitting agency for CWA Section 404 permits, the agency has a statutory role to provide input to the Corps as it reviews proposed discharges. The agency will continue to work with the Corps in its implementation of the Executive Order for efficient permit decisions for nationally and regionally significant infrastructure projects. As necessary, the EPA also will participate in interagency forums designed to effectively resolve issues of concern and ensure that permit decisions are both timely and environmentally protective.

Build State and Tribal Wetlands Program:

The EPA will continue to work with its state and Tribal partners to strengthen their wetland programs in the areas of monitoring and assessment, voluntary restoration and protection, regulatory programs (including CWA Section 401 certification), and wetland water quality standards. The agency will assist states and tribes to develop and implement integrated monitoring and assessment programs that improve wetland data for decision-making on wetlands within watersheds. In addition, the EPA will continue to work with states and tribes interested in assuming administration of the CWA Section 404 program. In FY 2016, the EPA expects to publish a rule clarifying the requirements for a state assuming the Section 404 permit program, based on recommendations from a FACA committee. In support of state and Tribal wetland programs, the EPA will continue to administer Wetland Program Development Grants with a focus on working more efficiently with states and tribes to achieve specific program development outcomes.³⁰⁹

³⁰⁹ For more information, visit <http://www.epa.gov/owow/wetlands/> or <http://www.cfda.gov>.

Continue the National Wetland Condition Assessment:

The EPA's National Wetland Condition Assessment is part of the National Aquatic Resource Surveys, designed to assess the condition of our nation's waters while advancing state capacity to monitor and assess aquatic resources. Taken together, the National Wetland Condition Assessment and the USFWS *Wetland Status and Trends* results will be used to measure progress toward attainment of the national goal to increase the quantity and quality of the nation's wetlands. The National Wetland Condition Assessment will be published in FY 2015 and will represent the first-ever statistically valid comprehensive survey of national wetland condition. In FY 2016, the EPA will conduct the field sampling phase of the second National Wetland Condition Assessment, in partnership with federal agencies, states, and tribes.

Clarify Scope of Clean Water Act Protections for Clean Water Rule:

Another key activity will be the EPA's continued work, in coordination with the Corps, to define the geographic scope of waters protected under the CWA. The value of our nation's water is tremendous. At least 117 million Americans—more than one-third of the U.S. population—get at least part of their drinking water from sources that are fed by small streams.³¹⁰ In FY 2015, the EPA and the Corps expect to complete a rulemaking that will provide greater consistency, certainty, and predictability nationwide regarding where the CWA applies – and where it does not. In FY 2016, the EPA will continue to assist the Corps in implementing the regulatory definition of waters protected by the Clean Water Act, and in making jurisdictional determinations, including site visits.

Lead Interagency Team to Study and Address Coastal Wetlands Loss:

The USFWS reports the loss of 84.1 thousand acres of wetlands in coastal watersheds between 2004 and 2009.^{311,6} The EPA will use the agency's wetland program resources and authorities to improve coastal wetland natural resource protection and to collaborate with other agencies on coastal wetland restoration, including following through on the agency's designated actions for the Regional Ecosystem Restoration and Protection Objective of the National Ocean Policy. The Gulf of Mexico will remain an area of emphasis and attention, in light of documented wetland losses in that region.

³¹⁰ U.S. EPA (2009). Percentage of Surface Drinking Water from Intermittent, Ephemeral, and Headwater Streams. http://water.epa.gov/lawsregs/guidance/wetlands/surface_drinking_water_index.cfm.

³¹¹ **Estuarine Emergent Wetland** - Includes all tidal wetlands dominated by erect, rooted, herbaceous hydrophytes (excluding mosses and lichens) and all such wetlands that occur in tidal areas in which salinity due to ocean-derived salts is equal to or greater than 0.5 percent and that are present for most of the growing season in most years. Perennial plants usually dominate these wetlands.

⁶ Status and Trends of Wetlands in the Conterminous United States 2004 to 2009, available at: <http://www.fws.gov/wetlands/Documents/Status-and-Trends-of-Wetlands-in-the-Conterminous-United-States-2004-to-2009.pdf>.

Performance Targets:

Measure	(4E) In partnership with the U.S. Army Corps of Engineers, states, and tribes, achieve no net loss of wetlands each year under the Clean Water Act Section 404 regulatory program. ("No net loss" of wetlands is based on requirements for mitigation in CWA 404 permits and not the actual mitigation attained.)								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	Acres
Actual	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss			

Measure	(4G) Number of acres restored and improved under the 5-Star, NEP, 319, and great water body programs (cumulative).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	88,000	110,000	150,000	170,000	190,000	220,000	230,000	240,000	Acres
Actual	103,507	130,000	154,000	180,000	207,000	221,000			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,084.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$1,185.0 / -1.6 FTE) This net program change includes support to the EPA's implementation of core Clean Water Act responsibilities under Section 404, including timely review of Section 404 permits, science and technical reviews needed for defensible permits, and support for state efforts to establish and implement effective wetlands protection programs.

Statutory Authority:

Clean Water Act.

Program Area: Water: Human Health Protection

Beach / Fish Programs

Program Area: Water: Human Health Protection

Goal: Protecting America's Waters

Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$1,505.4</i>	<i>\$2,015.0</i>	<i>\$750.0</i>	<i>(\$1,265.0)</i>
Total Budget Authority / Obligations	\$1,505.4	\$2,015.0	\$750.0	(\$1,265.0)
Total Workyears	3.4	3.8	3.8	0.0

Program Project Description:

The Beach/Fish Program provides sound science, guidance, technical assistance, and nationwide information to state, Tribal, and, federal agencies on the human health risks associated with eating locally caught fish with contaminants at levels of concern. The agency pursues the following activities to support this program: 1) developing and disseminating methodologies and guidance that states and tribes can use to sample, analyze, and assess fish tissue in support of waterbody-specific or regional consumption advisories; 2) developing and disseminating guidance that states and tribes can use to conduct local fish consumption surveys; 3) developing and disseminating guidance that states and tribes can use to communicate the risks of consuming chemically contaminated fish; and 4) gathering, analyzing, and disseminating information to the public and health professionals that inform decisions on when and where to fish, and how to prepare fish caught for recreation and subsistence.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to:

- Update science and public policy to assess and manage the risks and benefits of fish consumption; and,
- Provide technical support to states in the operation of their fish advisory programs.

Performance Targets:

Measure	(fs1) Percent of women of childbearing age having mercury levels in blood above the level of concern.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	5.2	5.1	4.9	4.9	4.9	4.9	2.3	2.3	Women of Childbearing Age
Actual	2.8	Data Unavailable	Data Unavailable	2.3	2.3	2.3			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$19.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.

- (-\$1,284.0) This program change reflects a reduction in support for the Beach component of the Beach/Fish Program and aligns with the proposed elimination of the Beach Grant Program in the STAG account.

Statutory Authority:

Clean Water Act (CWA).

Drinking Water Programs

Program Area: Water: Human Health Protection

Goal: Protecting America's Waters

Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$95,283.5	\$96,492.0	\$125,018.0	\$28,526.0
Science & Technology	\$3,750.9	\$3,519.0	\$3,766.0	\$247.0
Total Budget Authority / Obligations	\$99,034.4	\$100,011.0	\$128,784.0	\$28,773.0
Total Workyears	521.5	521.6	522.7	1.1

Program Project Description:

The EPA's Drinking Water Program is based on a multiple-barrier, or a source-to-tap, approach to protecting public health from contaminants in drinking water. The EPA protects public health through: (1) source water assessment and protection programs; (2) promulgation of new or revised, scientifically sound National Primary Drinking Water Regulations (NPDWRs); (3) training, technical assistance, public health and environmental education, and financial assistance programs to enhance public water systems' capacity to comply with existing and new regulations; (4) underground injection control programs; (5) supporting implementation of NPDWRs by state and Tribal drinking water programs through regulatory, non-regulatory, and voluntary programs and policies; and (6) supporting states and tribes in helping public water systems finance the costs of infrastructure improvements.³¹²

Aging systems and the increasing impacts of climate change create opportunities for innovation and new approaches for drinking water and wastewater infrastructure. The Budget includes \$2.3 billion for EPA's Clean Water and Drinking Water State Revolving Funds (SRFs) and \$50 million in technical assistance, training, and other efforts to enhance the capacity of communities and states to plan and finance drinking water and wastewater infrastructure improvements. Within this \$50 million, in FY 2016, the EPA requests over \$24 million (the remaining funds are requested in EPM Surface Water Protection) to build the technical, managerial, and financial capabilities of drinking water systems to reliably provide safe drinking water to their customers now and into the future. This investment is designed to promote economic growth through innovative financing, techniques such as system partnerships, capacity building, full cost pricing, and public and private collaboration. These initiatives will complement the successful state revolving fund programs.

FY 2016 Activities and Performance Plan:

Safe drinking water is critical to protecting human health. Approximately 300 million Americans rely on the safety of tap water provided by public water systems that are subject to national

³¹² For more information, please see <http://www.epa.gov/safewater> and <https://www.cfda.gov> for more information.

drinking water standards.³¹³ In FY 2016, the EPA will continue to protect the public from contaminants in the drinking water by: (1) developing new and revising existing drinking water standards; (2) supporting states, tribes, and water systems in implementing standards; (3) promoting sustainable management of drinking water systems; and (4) implementing the underground injection control program. For FY 2016, the agency's goal is that 92 percent of the population served by community water systems will receive drinking water that meets all applicable health-based standards. Since FY 2008, the agency has met or surpassed its community water system goals. In FY 2014, 93 percent of the population served by community water systems (CWSs) received drinking water that met all applicable health-based drinking water standards, surpassing the performance target of 92 percent. In addition, in FY 2014, CWSs provided safe drinking water during 97 percent of total person months (all persons served by community water systems multiplied by 12 months), exceeding the performance target of 95 percent.

The agency will continue to implement the Drinking Water Strategy in FY 2016³¹⁴ to expand public health protection for drinking water. The strategy focuses on: 1) addressing contaminants in groups to accelerate advancement of drinking water protection; 2) fostering development of new innovations in drinking water technologies (especially those applicable to small systems) to address health risks posed by a broad array of contaminants; 3) finding ways to use the authority of multiple statutes to help protect drinking water; and 4) partnering with the states to share more complete data from monitoring at public water systems (PWSs).

Drinking Water Implementation

In FY 2016, the agency will continue to work with states to implement requirements for all NPDWRs to ensure that systems install and maintain appropriate levels of treatment and manage their distribution systems. In particular, the EPA will continue to focus on working with states with newer requirements to protect against *Cryptosporidium*, to control disinfection byproducts, and to implement the Revised Total Coliform Rule.

While most small systems consistently provide safe and reliable drinking water to their customers, many small systems face challenges with aging infrastructure, complying with regulatory requirements, workforce shortages/high-turnover, increasing costs, and declining rate bases. In FY 2014, small community water system violations made up 94 percent³¹⁵ of the overall violations from all size systems and, while the 87 percent target was exceeded, only 89 percent of the Indian Country population served by CWSs received drinking water that met all applicable health-based standards. The EPA will continue to focus on small systems under the following principles: (1) every person served by a public water system should be provided with safe drinking water; (2) target assistance to small systems that are most in need; and (3) use a variety of strategies to address the full spectrum of needs in order to promote the long-term sustainability of small systems.

³¹³ U.S. Environmental Protection Agency Safe Drinking Water Information System (SDWIS/FED), <http://water.epa.gov/scitech/datait/databases/drink/sdwisfed/index.cfm>.

³¹⁴ For more information, please see <http://water.epa.gov/lawsregs/rulesregs/sdwa/dwstrategy/index.cfm> for additional information.

³¹⁵ <http://water.epa.gov/scitech/datait/databases/drink/sdwisfed/pivottables.cfm>

EPA continues to work with states and tribes, as well as with utility associations, third-party technical assistance providers and other federal partners, to promote the sustainability practices that are the foundation for building technical, managerial, and financial capacity, known as Capacity Development.³¹⁶ This includes the implementation of system-wide planning practices such as asset management, water conservation and efficiency, energy efficiency, rate setting and effective pricing practices. A new small drinking water system priority goal is included in the FY 2014-2018 Strategic Plan that focuses on the next phase of the 2012-2013 priority goal – to have additional states and tribes improve system capacity:

- By September 30, 2015, the EPA will engage with an additional ten states (for a total of 30 states) and three tribes to improve small drinking water system capability to provide safe drinking water, an invaluable resource.

Key to addressing the most pressing water system issues is being able to identify which systems have the greatest need and then efficiently interacting with those systems. Since FY 2013, the EPA has been working to replace obsolete and expensive-to-maintain drinking water information management technology. The new system (SDWIS Primacy Agency, formerly known as SDWIS NextGen) will focus on the following:

- 1) Providing tools to states that will automate preliminary compliance determinations that will increase ease and consistency in determining whether systems are in compliance with drinking water rules;
- 2) Automating processes for verifying the accuracy of data;
- 3) Supporting efficient sharing of drinking water data between states and the EPA; and,
- 4) Reducing states' and the EPA's total cost of system ownership through a central system.

The transition to the new program management system will enable states to save resources currently used to maintain individual data systems allowing funds and staff to be redirected for other public health protection activities including providing additional technical assistance to systems in non-compliance and most in need. States will be able to use a new system that will improve the overall accuracy and availability of data on drinking water quality.

In FY 2016, the agency will continue to develop and support programs and activities in ways that are aligned with the E-Enterprise business strategy, an integral part of the agency's focus on launching a new era of state, local, Tribal, and international partnerships. E-Enterprise for the Environment is a transformative 21st century strategy – jointly governed by states and EPA – for modernizing government agencies' delivery of environmental protection. Under this strategy, the agency will streamline its business processes and systems to reduce reporting burden on states and regulated facilities, and improve the effectiveness and efficiency of regulatory programs for the EPA, states and tribes. Consistent with E-Enterprise, the agency began the transition to all-electronic reporting in the drinking water program in FY 2014 by conducting analyses of what data would be reported electronically and determining which shared services could be leveraged and what technology should be constructed to transmit the data. The EPA will work with states to build the SDWIS Drinking Water Gateway in FY 2015 to enable water systems and laboratories to electronically report compliance monitoring data to primacy agencies. In FY

³¹⁶ Read more on Capacity Development at <http://water.epa.gov/type/drink/pws/smallsystems/index.cfm>

2016, the EPA will initiate nationwide use of the SDWIS Drinking Water Gateway and will work with states toward completion of SDWIS Primacy Agency, a centralized, cloud-hosted system that will replace SDWIS State and other systems that are hosted and operated separately by each primacy agency. In order to require public water systems to submit compliance monitoring data electronically, rather than through paper, the agency may need to develop a rulemaking. Benefits of this mandated transition to all-electronic reporting of compliance monitoring data include improvements in program efficiency and data quality, greater public access to drinking water data, reductions in reporting burdens on laboratories and water utilities, reductions in data management burden for states, and ultimately reduction in public health risk.

In FY 2016, the EPA also will continue the following activities in order to facilitate compliance with rules:

- Support states in their efforts to assist small systems in attaining and maintaining the technical, managerial, and financial capacity to consistently meet regulatory requirements and achieve long-term sustainability;
- Oversee the national Public Water System Supervision (PWSS) program by working with states to establish drinking water program priorities, reviewing state programs, measuring program results, and administering the PWSS Grants;
- Directly implement the Aircraft Drinking Water Rule, which affects over five thousand aircraft;
- Carry out the Drinking Water Program where the EPA has primacy (*e.g.*, Wyoming, the District of Columbia, and Tribal lands), and carry out direct implementation activities where states have not yet adopted new regulations, including the Revised Total Coliform Rule;
- Provide guidance, training, and technical assistance to states, tribes, laboratories and utilities on the implementation of drinking water regulations and sustainable management practices; and,
- Complete remaining guidance and compliance assistance materials related to the Revised Total Coliform Rule, and work with states to help states obtain primacy for the rule.

Drinking Water Standards

To assure the American people that their water is safe to drink, the EPA's drinking water regulatory program monitors for a broad array of contaminants, evaluates whether contaminants are of public health concern, and regulates, when public health is at risk. As part of the Drinking Water Strategy, the EPA will continue to focus on regulating groups of drinking water contaminants, which may more effectively address potential risks and could create a framework for regulating similar contaminants and/or groups in the future. This group regulation requires more scientific input, complex analyses, and supporting documentation than a regulation for a single contaminant. The innovative nature of the group regulation also dictates the need for

increased public/scientific outreach and comment in the form of webinars and/or public meetings. The EPA will continue its communication with states, tribes, and communities, thereby maintaining confidence in the quality of drinking water.

The agency will continue to evaluate and address drinking water risks in FY 2016, including:

- Publishing the final regulatory determinations for the third Contaminant Candidate List (CCL 3). A “regulatory determination” is a formal decision on whether the EPA should initiate a rulemaking process to develop a regulation for a specific contaminant or group of contaminants. These final regulatory determinations are based on the evaluation of the chemical and microbial contaminants listed on CCL 3.
- Subsequent to publication of the final regulatory determinations for CCL 3, initiating the necessary rulemaking process to develop an NPDWR (or NPDWRs) for a specific contaminant, or group of contaminants for which there is a meaningful opportunity for public health protection through a NPDWR. SDWA requires that the agency publish the proposed NPDWR (regulation) within 24 months of the corresponding positive final determination and promulgate the final NPDWR within 18 months following the publication of the proposal.
- Publishing the final fourth Contaminant Candidate List (CCL 4). The SDWA requires the EPA to publish a list of unregulated contaminants every five years, which may require regulation and are known or anticipated to occur in public water systems. CCL 3 was published in October 2009. CCL 4 will be proposed in 2015.
- Reviewing and evaluating data from Unregulated Contaminant Monitoring Rule (UCMR) 3, which was collected during 2013-2015, regarding carcinogenic volatile organic compounds (cVOCs). The EPA expects to propose a cVOCs national primary drinking water (group) regulation in 2018 as part of the Drinking Water Strategy. The EPA is proposing to regulate these contaminants as a group rather than individually to provide public health protection more quickly and allow utilities to more effectively and efficiently plan for improvements.
- Proposing a perchlorate national primary drinking water regulation based in large part on substantial scientific analysis conducted by the EPA to inform the derivation of a perchlorate Maximum Contaminant Level Goal (MCLG) in response to the recommendations of the Science Advisory Board (SAB). The EPA also is collaborating with Food and Drug Administration scientists to implement the SAB’s recommendations and is committed to using the best available science to develop the proposed perchlorate MCLG and regulation.
- Considering and addressing public comments received in response to the proposed revisions to the Lead and Copper Rule (LCR) and developing a final LCR for promulgation in 2017. The Retrospective Review sought ways to simplify and clarify requirements imposed on drinking water systems to maintain safe levels of lead and copper in drinking water. As part of this process, the EPA solicited input from a working

group of stakeholders who informed Lead and Copper Rule recommendations from the National Drinking Water Advisory Council to the Administrator. These recommendations were addressed in the proposed rule.

- Proposing regulations for the Reduction of Lead in Drinking Water Act of 2011. The EPA will review and evaluate the public comments received on the proposed rule. This rule will clarify and codify the changes to the definition of lead free plumbing materials.
- Publishing the results of the third Six-Year Review of more than 80 existing regulations for chemical, microbial, and radiological contaminants. As a part of the third Six-Year Review and in accordance with the EPA's Final Plan for Periodic Retrospective Review of Existing Regulations, the agency has reviewed the Long-Term 2 Enhanced Surface Water Treatment Rule (LT2) by assessing and analyzing scientific data/information regarding occurrence, treatment, analytical methods, and health effects to evaluate whether there are new or additional ways to manage risk while assuring equivalent or improved public health protection. If appropriate, a rule revision may be proposed.

Sustainable Infrastructure and Sustainable Systems

With the aging of the nation's infrastructure and a growing need for investment, the drinking water and wastewater sectors face a significant challenge to maintain and advance the achievements attained in protecting public health and the environment. The EPA's water and wastewater sustainability efforts are designed to promote more effective management of water systems in order to continuously improve their performance and achieve long-term sustainability.

The EPA will develop and disseminate tools and conduct training necessary to facilitate small system partnerships; develop a framework to promote system-wide planning that reflects climate resiliency, asset management, energy management and water loss control; and provide technical assistance and training to states and drinking water systems on effective pricing structures that cover a system's full capital and operations and maintenance costs while also encouraging water efficiency. The goals of these initiatives are to:

- Develop new capacity building efforts that emphasize climate resiliency planning so communities of all sizes can better plan for future water conditions such as drought and flooding. Tools and training will be developed and disseminated to systems on viable techniques to manage extreme water conditions including opportunities for water reuse and aquifer storage and recovery;
- Promote sound asset management by educating systems on the importance of having detailed asset inventories, performing operation and maintenance tasks, identifying opportunities to reduce energy consumption and control water loss, and long-range financial planning to ensure that repair and replacement are conducted efficiently, and that annual revenue reserves and reinvestment are sufficient to facilitate long-term sustainability of the system to serve its community;
- Support small system partnerships through dissemination of best practices, training, and technical assistance to help small systems plan and facilitate regionalization or

consolidation agreements in order to improve the delivery of safe water, reduce operational costs, and increase rate bases; and,

- Provide technical assistance to help promote the adoption of full-cost pricing to narrow the difference between utility expenditures and rates.

In addition, within the \$50 million in technical assistance investments described above, the EPA's FY 2016 budget includes resources for the Water Infrastructure and Resiliency Finance Center to help communities across the country improve their wastewater, drinking water, and stormwater systems, particularly through innovative financing and building resiliency to climate change. These investments are designed to enhance system capacity and ultimately increase the efficiency and effectiveness of available water infrastructure funding.

The FY 2016 budget also provides for the realignment of the Environmental Finance program (from the Office of the Chief Financial Officer) that manages the Environmental Financial Advisory Board and provides grants to a network of university-based Environmental Finance Centers which deliver financial outreach services, such as technical assistance, training, expert advice, finance education, and full cost pricing analysis to states, local communities and small businesses. This results in a total FY 2016 request of \$2.8 million across the Drinking Water and Surface Water Protection programs.

The EPA will continue to encourage drinking water systems to adopt sustainable management practices by providing funding, technical assistance, and training including the following:

- Providing states with funds, through the Drinking Water State Revolving Fund (DWSRF) capitalization grants, for low-interest loans to assist utilities with financing drinking water infrastructure needs and to support utility compliance with SDWA standards;
- Working with states, tribes, water systems, and other stakeholders to enhance water system technical, financial, and managerial capacity to address infrastructure replacement and rehabilitation, and enhance system performance and efficiency;
- Providing effective oversight of the DWSRF funds;
- Continuing to work with the states to enhance their capacity development and operator certification programs to ensure effective and ongoing compliance by public water systems with the SDWA.
- Partnering with states and utility associations as part of the EPA's Sustainability Policy to promote: upfront planning processes to ensure that projects are environmentally and financially sustainable; system partnerships to achieve greater efficiencies; and development of asset management programs, water and energy efficiency, and source water protection approaches to manage water resources; and
- Working with states, other federal agencies, and utility associations to identify options for utilities in response to climate change impacts and water resource limitations.

Source Water Protection

The EPA will continue supporting state and local efforts to identify and address current and potential sources of drinking water contamination. These efforts are integral to the sustainable infrastructure effort because source water protection can reduce the need for additional drinking water treatment and the associated additional infrastructure costs and energy usage, while better protecting public health. Success has resulted from these efforts, as 91 percent of CWSs met all applicable health-based standards through approaches that included source water protection in FY 2014, surpassing the performance target of 90 percent. In FY 2016, the agency will:

- Continue to work with national, state, Tribal, local stakeholder organizations, and the Source Water Collaborative³¹⁷ to promote a unified approach in protecting drinking water sources and to update source water assessments and plans as information becomes available. The EPA also will work with other federal agencies to support state, Tribal, and local source water protection actions.
- Continue its partnership with the American Water Works Association (AWWA) and the Association of State Drinking Water Administrators (ASDWA) to encourage and support states, drinking water utilities, and local communities in redoubling their efforts to identify susceptible drinking water systems, revisit their source water assessments, and take steps to ensure that adequate preventative and response measures are in place. To support states and utilities in their efforts, in FY16, the agency will complete the development of a GIS-based interactive drinking water tool. - Drinking Water Mapping Application for Protecting Source Waters (DWMAPS). DWMAPS will provide EPA Regions, states, tribes, utilities and other members of the drinking water community with access to GIS-based information to comprehensively identify, map and evaluate threats to drinking water sources.
 - The application will have the capability for states, utilities or others to upload state datasets for their own use, such as chemical storage facilities and sensitive drinking water intakes, to evaluate threats to drinking water from chemical storage tanks with the agricultural community, CWA programs, forming a state or local source water collaborative).
 - DWMAPS will also provide capability to analyze and coordinate water quality assessment, impaired waters, and point source permit data to protect drinking water sources leveraging Clean Water Act (CWA) programs and provisions.
 - As part of this effort, the EPA plans to host training for users in how to apply this and other tools for source water assessment and protection activities (e.g., collaboration with the agricultural community, CWA programs, forming a state or local source water collaborative).
- Continue our work with states and other stakeholders to characterize current and future pressures on drinking water supplies and how to address them.

³¹⁷ <http://water.epa.gov/infrastructure/drinkingwater/sourcewater/protection/sourcewatercollaborative.cfm>.

- Continue efforts to integrate across programs, media and federal agencies to more effectively identify and achieve mutual Clean Water Act and Safe Drinking Water Act goals. The agency will work with states and other stakeholders to promote actions outlined in the State-EPA Collaboration Toolkit: *Opportunities to Protect Drinking Water Sources and Advance Watershed Goals through the CWA*.³¹⁸

Underground Injection Control (UIC)

In order to safeguard current and future underground sources of drinking water from contamination, the UIC program regulates the construction, operation, permitting, and closure of injection wells that place fluids underground for storage, disposal, enhanced recovery of oil and gas, and minerals recovery. The number of UIC wells, especially Class II oil- and gas-related wells, has risen significantly in recent years, and we expect this trend to continue. Additionally, as population growth, land use changes and changes in local climatic weather patterns exacerbate water supply challenges in many areas of the country, management of water availability is now as important to the goal of sustaining water sources for the future as is prevention of contamination.

In FY 2016, the EPA will continue to provide technical support to states and tribes in making sound permitting decisions, provide oversight related to implementation of underground injection regulations, and directly implement the UIC regulations where the EPA has primary authority. Activities include:

- Encouraging states to apply best practices contained in the EPA’s guidance for hydraulic fracturing activities released on February 12, 2014, and for states to participate in agency-wide activities to improve safety of unconventional oil and natural gas operations.³¹⁹ This supports the agency’s priorities of safeguarding public health and environmental justice, while recognizing the important role that energy extraction, including natural gas development plays in our energy future;
- Overseeing authorized state and Tribal agencies in their efforts to effectively manage Class II enhanced oil and gas recovery wells and oil and gas-related disposal wells in a rapidly growing energy sector to prevent endangerment of underground sources of drinking water;
- Working towards transferring primary enforcement authority for Class II wells from the EPA direct implementation to state programs that apply for primacy;
- Supporting protection of both water quality and supply by providing policy input and technical support to facilitate aquifer storage and recovery and promoting consideration of groundwater as part of stormwater management and water reuse;

³¹⁸<http://www.asdwa.org/document/docWindow.cfm?fuseaction=document.viewDocument&documentid=3007&documentFormid=3779>.

³¹⁹<http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/upload/epa816r14001.pdf>

- Managing aquifer exemptions related to uranium solution mining, other mineral extraction and oil and gas activities by promoting implementation of a nationally consistent and predictable approach to reviewing and approving aquifer exemption requests, providing training and policy clarification to states, addressing legal actions and continuing development of a national aquifer exemption data set;
- Promoting voluntary strategies for improving compliance with Class II regulations, including risks from induced seismic events from disposal wells;
- Evaluating options to make the process of state program revision approval and codification more efficient and continuing to move forward with review and approval of state programs currently underway;
- Using the national UIC database and data collected from SF 7520s (permit applications) to assist with program oversight of UIC Direct Implementation programs; and
- Continuing to implement the Class VI Geologic Sequestration (GS) Rule by:
 - 1) Reviewing and processing (by rulemaking) Class VI primacy applications from states and tribes;
 - 2) Directly implementing the regulation, where states have not yet obtained primacy by working directly with permit applicants, and
 - 3) Providing technical assistance to states to analyze complex modeling, monitoring, siting, and financial assurance data for new GS projects and for determining if enhanced oil/gas wells storing carbon dioxide need to be transitioned from Class II to Class VI permits.

Performance Targets:

Measure	(E) Percent of the population in Indian Country served by community water systems that receive drinking water that meets all applicable health-based drinking water standards.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	87	87	87	87	87	87	87	87	Population
Actual	81.2	87.2	81.2	84	77	89			

Measure	(aa) Percent of population served by CWSs that will receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	90	90	91	91	92	92	92	92	Population
Actual	92.1	92	93.2	94.7	92	93			

Measure	(aph) Percent of community water systems that have undergone a sanitary survey within the past three years (five years for outstanding performance or those ground water systems approved by the primacy agency to provide 4-log treatment of viruses).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	95	95	95	95	95	83	79	79	CWSs
Actual	88	87	92	89	93	87			

Measure	(apm) Percent of community water systems that meets all applicable health-based standards through approaches including effective treatment and source water protection.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	90	90	90	90	90	90	90	90	Systems
Actual	89.1	89.6	90.7	91	91	91			

Measure	(dw2) Percent of person months during which community water systems provide drinking water that meets all applicable health-based standards.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	95	95	95	95	95	95	95	95	Person Months
Actual	97.2	97.3	97.4	97.8	96.9	97			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$3,346.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$650.0 / +2.5 FTE) This increase of resources reflects the realignment of the Center for Environmental Finance to the Drinking Water and Surface Water Protection Programs to support the new Water Infrastructure and Resiliency Finance Center as part of the water infrastructure investments.
- (+\$24,061.0 / +4.0 FTE) This program change reflects an increase in funds to complement the EPA's state revolving fund infrastructure investments and promote economic growth through innovative financing techniques such as system partnerships, capacity building, full cost pricing, and public and private collaboration. As part of this change, the EPA will:
 - Invest \$8.5 million to promote small system partnerships through dissemination of best practices, training, and technical assistance to help small systems plan and facilitate regionalization or consolidation agreements in order to improve the delivery of safe water, reduce operational costs, and increase rate bases.
 - Invest \$8.5 million to expand upon EPA's existing technical, managerial, and financial capacity programs and develop a framework to promote system-wide planning that reflects climate resiliency, asset management, energy management, and water loss control.
 - Invest \$4 million to provide technical assistance and training to states and drinking water systems on effective pricing structures that cover a system's full capital and operations and maintenance costs while also encouraging water efficiency.
 - Invest \$2.8 million for the Water Infrastructure and Resiliency Finance Center and Center for Environmental Finance to help communities across the country improve their wastewater, drinking water, and stormwater systems, particularly through innovative financing and by building resilience to climate change.

These investments are designed to enhance system capacity to reliably provide safe drinking water and ultimately increase the efficiency and effectiveness of available drinking water infrastructure funding.

- (+\$1,541.0) This program change reflects an increase to fund the drinking water needs survey. As directed by the SDWA, the EPA uses the results of the survey to set the state DWSRF allocations every four years. The cycle for the next required Needs Survey was delayed due to reductions in drinking water programs. In FY 2016, the EPA must collect and analyze the results of the 2015 Needs Survey so that it can be reported in 2017 and applied to the allocation of the state DWSRF grants beginning in 2018.
- (-\$1,072.0 / -5.4 FTE) This program change reflects a reduction as the agency is reviewing and redesigning many core business processes to be more efficient. The EPA expects these actions as well as improved IT systems and processes will provide existing staff the tools necessary to reduce staff time and costs.

Statutory Authority:

SDWA; CWA.

Program Area: Water Quality Protection

Marine Pollution

Program Area: Water Quality Protection

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$11,877.3</i>	<i>\$10,628.0</i>	<i>\$10,481.0</i>	<i>(\$147.0)</i>
Total Budget Authority / Obligations	\$11,877.3	\$10,628.0	\$10,481.0	(\$147.0)
Total Workyears	38.4	38.0	37.4	-0.6

Program Project Description:

Ocean and coastal waters are environmentally and economically valuable to the nation. Healthy ocean and coastal waters support fishing, recreation, tourism, and industry. The Environmental Protection Agency works to integrate its management of the oceans and coasts across federal agencies and with state, Tribal, and local governments.³²⁰ The goals of the EPA's Marine Pollution Program are to: 1) ensure marine ecosystem protection by controlling and preventing pollutants from land-based sources and vessels, 2) manage ocean dumping of dredged material and disposal of other pollutants in the ocean, 3) develop strategies and programs to address emerging environmental threats to the marine and coastal water quality such as ocean acidification and aquatic trash and debris, 4) develop strategies to protect sensitive marine habitats such as coral reefs, and 5) gather data and undertake research to inform policy and program decisions for protection of the marine and near coastal environment.

FY 2016 Activities and Performance Plan:

Addressing Pollution from Vessels, Marinas, and Ports

Major areas of effort for FY 2016 include:

- Developing regulations for the joint EPA and Department of Defense Uniform National Discharge Standards (UNDS) rulemaking to control operational discharges from vessels of the Armed Forces;
- Developing strategies and implementing projects to address vessel-related impacts from sewage discharge, invasive species, ballast water, and pollution from shipping;
- Developing strategies and implementing projects to address water impacts from ports;

³²⁰ See <http://water.epa.gov/type/oceb/index.cfm> for more information.

- Developing strategies and implementing projects to promote best practices for recreational boaters and marina facilities through regulatory and/or non-regulatory means;
- Participating on the U.S. delegation to the Marine Environment Protection Committee of the International Maritime Organization to develop international standards and guidance under the International Convention for the Prevention of Pollution from Ships and other International Maritime Organization conventions addressing operational discharges from ships; and,
- Developing communication and education tools and resources to promote best practices to prevent pollution from vessels, marinas, and ports.

Managing the Marine Protection, Research, and Sanctuaries Act / Ocean Dumping Management Program (including Dredged Material)

In order to ensure U.S. ports can be reached by large sea-going vessels, several hundred million cubic yards of sediment are dredged each year from U.S. waterways, ports, and harbors. This directly impacts the U.S. economy, national security, and the environment. The EPA's ocean dumping management program regulates ocean dumping (including disposal of wastes and dredged material) to protect the environment from any material that will degrade or endanger human health, welfare, or amenities, the marine environment, ecological systems, and/or economic opportunities.

Major areas of effort for FY 2016 include:

- Managing regional programs that monitor active dredged material ocean dump sites nationwide to ensure achievement of environmentally acceptable conditions, as reflected in each site's Management and Monitoring Plan. In FY 2014, 95 percent of all active dredged material ocean disposal sites achieved environmentally acceptable conditions. Since FY 2013, the EPA has leased and secured vessel time through InterAgency Agreements with NOAA and the Army Corps of Engineers and through leased vessels and has acquired contractor support for survey and analysis work. The EPA will continue this approach in FY 2016;
- Evaluating past ocean disposal site monitoring activities to identify potential improvements, including those related to scientific developments, for future EPA monitoring efforts;
- Evaluating ocean dumping permitting and site designation requests and supporting implementation of general and other permits issued under the MPRSA;
- Assessing impacts of the disposal of wastes from seafood processing operations in the marine environment;

- Ensuring that U.S. policy and procedures regarding ocean dumping are consistent with the 1972 London Convention and 1996 London Protocol. The EPA is Head of the U.S. Delegation for the annual London Convention/London Protocol Scientific Groups Meetings and Alternate Head of the U.S. Delegation for the annual London Convention/London Protocol Consultative Meeting of the Parties. At the 36th London Convention Consultative Meeting and 9th London Protocol Consultative Meeting, a U.S. official from the EPA was elected as Vice-Chair of the London Convention/London Protocol Governing Bodies.
- Developing, with U.S. Army Corps of Engineers, the annual United States Ocean Dumping Report to the International Maritime Organization;
- Working with other federal agencies and the international community to provide technical guidance related to sub-seabed carbon sequestration and marine geo-engineering, and coordinating with federal partners to address any proposals for ocean fertilization or sub-seabed carbon sequestration; and,
- Coordinating with the U.S. Army Corps of Engineers, U.S. Coast Guard, and other federal agencies and other EPA programs on activities related to ocean dumping, including managing dredged material and encouraging beneficial use.

Ocean and Coastal Acidification

Recent research is showing that, in addition to the contribution of atmospheric carbon dioxide to ocean and coastal acidification, local land-based anthropogenic sources of nutrients and organic carbon can significantly change the biogeochemistry of coastal waters, resulting in increased acidification. Because ocean and coastal acidification has the potential to affect key species at the base of marine food webs, it has the potential to affect fishery species of interest. Further, decreases in the rate of calcium carbonate production may alter benthic ecosystems, thereby affecting marine organisms that depend on the complex habitat provided by corals and other associated organisms.

Major areas of effort for FY 2016 include:

Continue participation in interagency efforts to assess and mitigate environmental impacts from ocean and coastal acidification, including the following activities:

- Supporting a “state of the science” assessment on acidification stressors and impacts in the Pacific Northwest and New England regions;
- Providing targeted data and research to fill gaps in regional understanding of stressors and impacts (e.g., pH monitoring in New England; carbon/nitrogen loadings model in the Pacific Northwest; ecosystem services valuation analysis);
- Facilitating stakeholder planning dialogues to explore mitigation strategies; and

- If possible, identifying the best potential parameters for developing water quality criteria for ocean and coastal acidification.
- Continue to coordinate with NOAA and other federal partners through active participation in the Interagency Ocean Acidification Working Group.

Reducing Marine Trash

Major areas of effort for FY 2016 include:

- Implementing and continuing to build the EPA’s Trash Free Waters (TFW) Program;
- Developing and managing regional TFW programs in California and the Pacific Islands, the Mid-Atlantic, the Gulf of Mexico, Puerto Rico and the Caribbean, and other locations;
- Making the cost-benefit case that aquatic trash requires priority action;
- Addressing major research needs and assessing scientific findings for purposes of making policy and program decisions regarding possible human health effects of plastic trash in the food chain and the ecosystem impacts of aquatic trash;
- Developing public/private partnerships with corporate commitments to achieve major reductions in trash entering U.S. water bodies; and,
- Continuing to work with other members of the Interagency Marine Debris Coordinating Committee to assess, reduce, and prevent marine debris per the Marine Debris Research, Prevention, and Reduction Act of 2006.

Coral Reef Protection

Major areas of effort for FY 2016 include:

- Developing strategies and implementing projects to address land-based stressors of coral reef ecosystems (e.g., analysis of the coral reef/climate nexus; communicating the impacts on corals from all stressor sources; assessing the impacts of national and regional action strategies); and,
- Continuing to represent the EPA on the U.S. Coral Reef Task Force.

Performance Targets:

Measure	(co5) Percent of active dredged material ocean dumping sites that will have achieved environmentally acceptable conditions (as reflected in each site's management plan).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	98	98	98	95	95	95	95	95	Sites
Actual	99	90.1	93	97	96	95			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$318.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$465.0 / -0.6 FTE) This program change reflects a reduction in resources from ocean monitoring and assessment activities through strategic targeting of ocean dumpsites.

Statutory Authority:

Clean Boating Act (PL 110-288); CWA; Marine Debris Research, Prevention and Reduction Act of 2006; Marine Plastic Pollution Research and Control Act of 1987; Marine Protection, Research, and Sanctuaries Act; Ocean Dumping Ban Act of 1988; the Endangered Species Act.

Surface Water Protection

Program Area: Water Quality Protection

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$198,879.2</i>	<i>\$199,789.0</i>	<i>\$238,818.0</i>	<i>\$39,029.0</i>
Total Budget Authority / Obligations	\$198,879.2	\$199,789.0	\$238,818.0	\$39,029.0
Total Workyears	1,011.4	1,006.4	1,015.9	9.5

Program Project Description:

The Surface Water Protection Program, under the Clean Water Act (CWA), directly supports efforts to protect, improve, and restore the quality of our nation's rivers, lakes, and streams. The EPA works with states and tribes to make continued progress toward the clean water goals identified in the agency's Strategic Plan by implementing core clean water programs, including accelerating innovations that implement programs on a watershed basis. It also supports enforcement case development as appropriate. The program also integrates environmental outreach and training activities to educate the public on improving water quality.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will focus its work with states, interstate agencies, tribes and others in key areas of the National Water Program. The main components and projected funding levels are: water quality standards and technology (\$46.1 million); National Pollutant Discharge Elimination System (NPDES) (\$48.5 million); water monitoring (\$25.8 million); TMDLs (\$26.2 million); watershed and nonpoint source management (\$29.2 million); sustainable infrastructure management (\$44.8 million); water infrastructure grants management (\$11.8 million); and Clean Water Act Section 106 program management (\$6.3 million).

The FY 2016 budget includes an agencywide investment in Communities. The EPA must work each and every day - hand-in-hand with other federal agencies, states, tribes and local communities - to improve the health of American families and protect the environment one community at a time, all across the country. We must expand the work we do to enhance the livability and economic vitality of neighborhoods; strengthen our relationship with America's agricultural community; support green infrastructure to manage urban waters; and take into consideration the impacts of our decisions on environmental justice communities through increased analysis, better science, and enhanced community engagement to ensure the protection of basic fundamental rights. The investment in Community activities focuses resources and programs to better support the efforts of environmentally overburdened, underserved, and economically distressed communities. These efforts will proactively address endemic and emerging environmental challenges in ways that build a community's long-term sustainability.

Communities

In FY 2016, the EPA will provide a total of \$1.1 million and 2.5 FTE for Advanced Monitoring to assist communities to reduce environmental impacts. Many communities are seeking to incorporate waterways as part of the aesthetic and benefit of living in the community, creating an interest in the health of waterways. This proposal will provide tools to demonstration communities to help enhance their understanding of how they can better protect their waters. Interactive web tools will describe water quality monitoring data using clear, understandable indicators. The EPA also would make monitoring equipment available via equipment loans through the EPA Regional Offices to enable the community to collect data at key points along the waterway.

The Water program will provide 10 FTE for EPA Community Resource Coordinators (CRCs). The CRCs will be a team of 20 FTE who will work cross-media to provide on the ground technical assistance to multiple communities, specifically focused on improving community adaptation and resiliency in the face of climate change and extreme weather events.

Water Quality Criteria and Standards

Water quality criteria and standards provide the scientific and regulatory foundation for water quality protection programs under the Clean Water Act. The criteria define which waters are clean and which waters are impaired, and thereby serve as benchmarks for decisions about allowable pollutant loadings into waterways.³²¹

In FY 2016, the EPA will continue to support state and Tribal programs by providing scientific water quality criteria information, which will include conducting scientific studies and developing or improving criteria for nutrients, pathogens, and chemical pollutants in ambient water. The EPA will continue to work with state and Tribal partners to help them develop standards that are “approvable” under the Clean Water Act, including providing advance guidance and technical assistance, where appropriate, before the standards are formally submitted to the EPA.

Excessive nutrients continue to be one of the leading causes for impaired waters. A key element to making progress in reducing nutrient pollution is the development of numeric nutrient criteria. However, many states and tribes lack the technical and financial resources to develop them. The EPA will continue its efforts to work with states and tribes to accelerate adoption of numeric nutrient criteria into their state water quality standards.

The EPA will focus on the following key strategic areas:

- Support states and authorized tribes in adopting and implementing the Water Quality Standards regulations at 40 CFR part 131.
- Provide technical advice and assistance to states and authorized tribes in updating their water quality criteria to reflect the latest scientific information, including adoption of

³²¹ For more information, visit <http://www.epa.gov/waterscience/>.

revised criteria to protect recreational uses after the EPA's December 2012 issuance of updated criteria for pathogen indicators, and adoption of numeric nutrient criteria.

- Update the Water Quality Criteria prioritization process for aquatic life and human health to be more systematic, comprehensive, science-driven, and transparent.
- Develop Human Health Ambient Water Quality Criteria for viruses commonly believed to be responsible for gastrointestinal illness in contaminated water with recreational uses. This includes developing criteria for a viral indicator and working with the EPA's Research and Development Program to modify biomolecular methods to function in surface water for pathogenic viruses developed for the Unregulated Contaminant Monitoring Rule.
- Develop new and revised Health Advisories or Health Advisory values that will support state needs for information for their own standards setting processes. Where data is not available, the EPA will leverage resources from states and international bodies on chemical safety to help develop Health Advisories.
- Ensure methodologies for developing Ambient Water Quality Criteria for aquatic life are based on state-of-the-art science.
- Many new methods are developed by small businesses seeking access to the market provided by water regulation. The EPA's Water Program will work with the Water Innovation Technology Center (WITC) to develop standardized approaches to validating and calibrating new biomolecular methods. This will facilitate introduction of new and emerging analytical methods for use in criteria and advisory values. The WITC will hold colloquia with stakeholders that will lead to guidance for validation and calibration of new methods for use by industry and other stakeholders.

National Pollutant Discharge Elimination System and Effluent Guidelines

In FY 2016, the EPA will continue to implement and support the core water quality programs that control point source discharges. The National Pollutant Discharge Elimination System (NPDES) program requires point source dischargers to be permitted and requires pretreatment programs to control discharges from industrial and other facilities to the nation's wastewater treatment plants. The EPA works with states to structure the permit program to better support comprehensive protection of water quality on a watershed basis and also support the recent increases in the scope of the program arising from court orders and environmental issues.

The number of entities required to obtain NPDES permits has increased three-fold over the past 15 years, from 372 thousand in 1999 to nearly one million regulated entities in 2014. As a result, the EPA and the states have experienced increasing demands to provide analytical and outreach services to the regulated community and other interested stakeholders.

The EPA's key strategic objectives for the NPDES programs include a diverse array of program initiatives, including:

- Ongoing efforts to work with states and Regional offices to ensure the integrity of the NPDES program in the 46 states and the U.S. Virgin Islands that are authorized to issue NPDES permits. The EPA will continue to improve management systems and look for program efficiencies to ensure the optimal balance of flexibility and national consistency. In addition, the EPA will continue efforts to ensure that program assessments are publicly available and result in meaningful program improvements.
- Outreach, training and technical assistance to states and permittees in development of water quality-based permit limits for nutrient pollution, which is one of the largest remaining causes of water body impairment nationwide.
- Outreach, training and technical assistance in implementation of the national technology-based standards for discharges from Steam Electric power plants and related cooling water intake structures, and support for states in developing site-specific permit conditions for such facilities' wastestreams, such as those from flue gas desulfurization.
- Active engagement with communities and States to implement the EPA's Integrated Municipal Stormwater and Wastewater Planning Approach by providing timely technical assistance on permitting issues;
- Assistance to states to address permitting issues arising from unconventional oil and gas extraction, such as shale gas and coal-bed methane, in a timely manner that is consistent with state water quality standards and Clean Water Act technology requirements, and development of effluent guidelines to address such discharges on a consistent, national basis.
- Efforts to control pollutant discharges from Concentrated Animal Feeding Operations (CAFOs). The EPA will continue to work with states and tribes to implement fully its 2008 CAFO rule to ensure that all CAFOs that discharge pollutants obtain NPDES permit coverage.
- Collaborative efforts to increase water quality protection from livestock operations using non-regulatory techniques, such as conducting industry partnership demonstration projects and partnering with other federal agencies and stakeholders to hold workshops on best conservation practices to educate farmers on most effective best management practices (BMPs).
- Enhanced implementation of the permitting process to strengthen the stormwater program. Stormwater is a main contributor of nutrients and sediments, which are two of the top three pollutants impairing waters in the United States.
- Actions to promote the use of green infrastructure to improve and protect urban waters and to make communities more resilient. The EPA is strengthening its partnership with other federal agencies to direct greater focus and funding for green infrastructure, providing technical assistance to communities, and developing tools that communities can use to evaluate green infrastructure.

- Ongoing efforts to work with states and permittees to resolve issues related to overflows in separate sanitary sewer systems and bypasses at the treatment plant to ensure that water quality is protected during wet weather events.
- Issuing the most recent Vessel General Permit (VGP) in 2013 and the small Vessel General Permit (sVGP) in 2014. The permits reduce the risk of invasive species introduction and reduce the discharge of pollutants from vessels. Together, the permits provide NPDES permit coverage to approximately 200 thousand vessel operators. The EPA will be responsible for implementing the permits, conducting outreach to the domestic and international shipping communities, developing tools and training, evaluating the efficacy of those permits, managing and analyzing data from tens of thousands of these vessels, and beginning to identify and research effluent limits and other requirements to be explored to improve or streamline the next VGP.
- Accelerating e-reporting as part of an agencywide effort to make regulations easier to implement, resources have been directed to: (1) accelerate implementation of e-reporting in order to reap the benefits of reduced burden for data entry and error resolution, (2) reduce effort in responding to public requests for data, (3) promote consistent requirements for electronic reporting across all states, and (4) create more timely access to NPDES program data in an electronic format for the EPA, states, regulated entities, and the public.
- Incorporate and strengthen elements of the NPDES program to acknowledge and address relevant climate resiliency needs of permitted entities and improve permit writer tools associated with changes in temperature, precipitation, stream flows, and other factors.

Monitoring and Assessment

In FY 2016, the EPA will continue working with the states and tribes to implement the Monitoring Initiative, which includes enhancements to state and interstate monitoring programs consistent with their individual monitoring strategies and collaboration on statistically-valid surveys of the nation's waters. Through the Monitoring and Assessment Partnership, the EPA will work with states to develop and apply innovative and efficient monitoring tools and techniques to optimize availability of high-quality data to support Clean Water Act program needs, to expand the use of monitoring data and geo-spatial tools for water resource protection, and set priorities and evaluate effectiveness of water protection. This will allow the EPA, states, and tribes to continue to report on the condition of the nation's waters, and make significant progress toward assessing trends in water condition in a scientifically-defensible manner.

As part of the national surveys, the EPA, states, and tribes will collaborate to conduct field sampling for the 2016 National Wetland Condition Assessment. In FY 2016, the EPA and states will release the 2013/2014 National Rivers and Streams Assessment for partner and external peer review. The EPA and states will initiate data analysis of the National Coastal Condition Assessment 2015 report. Additionally, in FY 2016, the EPA/State Steering Committee for the National Lakes Assessment will be planning the third lakes survey which will be in the field in calendar year 2017.

The EPA will work closely with states as they continue to enhance their monitoring programs. The EPA stresses the importance of using statistical surveys: to generate cost effective statewide water quality assessments; targeted monitoring approaches to develop and evaluate local protection and restoration activities; transmission of water quality data to the national storage and retrieval warehouse using the Water Quality Exchange protocol; development of automated data analysis tools to streamline water quality assessments; and electronic reporting of assessment decisions using the new Assessment and TMDL tracking system described in the Accountability section below. The Water Quality Exchange allows states, tribes, and other organizations to submit water quality data and share the data over the Internet. The EPA will assist tribes in developing and implementing monitoring strategies appropriate to their water quality programs, support tribes to provide data in a format accessible for storage in the EPA data systems, and encourage tribes to use water quality data to protect and restore waters in Indian country.

Total Maximum Daily Loads

Development and implementation of Total Maximum Daily Loads (TMDLs) for CWA 303(d) listed impaired waterbodies is a critical tool for meeting water quality restoration goals. TMDLs focus on clearly defined environmental goals and establish a pollutant budget, which is then implemented via permit requirements and through local, state, and federal watershed plans and programs. In FY 2016, the CWA 303(d) Listing (of impaired waters) and TMDL Program will continue to engage with states to implement the new 10-year vision for the program.³²² As part of this effort, the EPA will continue to encourage states to: develop processes for setting priorities; identify priorities (waters and/or impairments) for assessment; and complete TMDLs and other restoration plans to address impaired segments. The EPA will work with states and other partners to develop and implement activities and watershed plans to restore these waters. Additionally, the EPA will work with states and other partners to improve our ability to identify and protect healthy waters/watersheds, and will work with states to pursue integration of protection priorities with priorities identified under the CWA 303(d) program. Cumulatively, states and the EPA have made significant progress in the development and approval of Total Maximum Daily Loads and have completed more than 71 thousand TMDLs through FY 2014. The EPA also will continue to work with states to implement a new measure that looks more comprehensively at the 303(d) program by measuring the extent of state priorities addressed by TMDLs, alternative restoration, or protection approaches.

Accountability in Water Quality Protection and Restoration

Most impaired waters take years to recover fully, and incremental improvements are currently not readily visible. In FY 2016, the EPA will continue to support a new approach for measuring local improvements in water quality, resulting in a more transparent and efficient measure of progress and better allowing cross-program integration. This new approach will use the National Hydrography Dataset Plus (NHDPlus) to calculate watershed area to describe previously impaired waters where actions are being implemented and are now attaining water quality standards.

³²² For more information see: <http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/programvision.cfm>.

This tiered, evidence-based approach to tracking environmental outcomes integrates data from the national, state and local scales and enables the EPA to transition from tracking program outputs to tracking environmental outcomes as strategic measures to show the effectiveness of the Nation's investments in water quality. This approach will provide greater accountability and transparency while supporting more flexibility in how the EPA and states achieve the CWA goal to restore and maintain the chemical, physical and biological integrity of the Nation's waters.

In FY 2016, the EPA will be implementing the new approach to allow states to more efficiently report their Integrated Reporting information. In FY 2014, the EPA completed outreach, engaging with states to design the new approach. In FY 2015, the EPA will complete the tools for automating the assessments to *NHDPlus*. In FY 2016, the EPA will complete the redesign of the system to improve the approaches that states use for submitting Integrated Reporting information to support this new approach. The EPA also will begin efforts to assist states in the following areas:

- Developing or implementing tools (e.g. the Recovery Potential Screening Tool) to identify priorities in support of the 303(d) Program 10-year vision and this new approach;
- Developing GIS data for assessed and impaired waters;
- Developing assessment methods and tracking abilities for healthy/unimpaired waters;
- Developing data management capabilities to track and report water quality assessments;
- Developing methods to automate the screening of monitoring data against water quality criteria;
- Developing approaches to integrate state-scale statistical surveys with local-scale assessments; and,
- Integrating water quality data across the various water quality programs.

This assistance will be coordinated through the EPA regional offices to identify state needs and to align those investments in support of this improved approach for accountability.

Nonpoint Source Management

Nonpoint Source pollution, generated by runoff that carries excess nutrients, pesticides, pathogens, toxics and other contaminants to waterbodies, is the greatest remaining source of surface water quality impairments and threats in the United States. Nonpoint source management is the integral piece to addressing most of the remaining water quality problems and threats in the United States. Protection and restoration of water quality on a watershed basis requires a careful assessment of the nature and sources of pollution, the location and setting within the watershed, the relative influence on water quality, and the amenability to preventive or control methods. In FY 2016, the EPA will support efforts of states, tribes, other federal agencies, and local communities to develop and implement watershed-based plans that successfully address all of these factors to restore waters through the national Nonpoint Source Program (Section 319) while also continuing to protect those waters that are healthy.

In FY 2016, the EPA will continue to provide nonpoint source program leadership and technical support to states, municipalities, watershed organizations, and concerned citizens by:

- Continuing coordination with the U.S. Department of Agriculture (USDA) to focus federal resources on agricultural sources of pollution in select watersheds in every state. Also, the EPA will continue to work with the U.S. Forest Service, Bureau of Land Management, and other federal agencies with land management responsibilities to address water quality impairments;
- Creating, supporting, and promoting technical tools that states and tribes need to accurately assess water quality problems and analyze and implement solutions;
- Assuring accountability for results through (1) use of the EPA's nonpoint source program grants tracking system (GRTS), which will continue to track the nationwide pollutant load reductions achieved for phosphorus, nitrogen, and sediment and (2) tracking the remediation of waterbodies that had been primarily impaired by nonpoint sources and that were subsequently restored so that they may be removed from the Section 303(d) list of impaired waters;³²³
- Continuing to work closely with a broad set of partners to promote the implementation of low-impact development practices; and focusing on the development and dissemination of new tools to promote Low-Impact Development (LID), thereby preventing new nonpoint sources of pollution.³²⁴ LID can be used as part of an integrated Smart Growth strategy to reduce stormwater runoff;
- Implementing the Healthy Watersheds Strategy, in cooperation with states, academia and non-governmental organizations, which focuses on protecting the watersheds of healthy waters, as well as healthy components of other watersheds. Through technical support, tools, and a Healthy Watersheds grant program, the EPA will continue to provide assistance to states, tribes, and nonprofit organizations interested in conducting healthy watershed assessments, planning, and implementation; and communicating the importance of protection of healthy waters; and,
- Targeting efforts within critical watersheds to implement effective strategies that can yield significant progress in addressing nonpoint source nutrient pollution. Specifically, the EPA will continue to support state efforts to design and implement nutrient reduction strategies and to design watershed plans; promote sustainable agricultural practices; collaborate to leverage and focus the most effective nutrient and sediment reduction practices; work to leverage resources of federal and state partners to address development and wetland restoration; and support critical monitoring needs to inform decision-making.

In FY 2013, the EPA issued new Section 319 Program and Grant Guidelines and other program documents that enhance program accountability and performance. The EPA continues to oversee implementation of these program enhancements and to provide technical assistance to support state and tribal nonpoint source programs. One of the foundational changes in the grant guidelines is the renewed expectation that all states will maintain current NPS management

³²³ For more information, visit www.epa.gov/nps/success.

³²⁴ For more information, visit www.epa.gov/owow/nps/lid/lidlit.html.

programs, revising them at least every five years. In FY 2016, the EPA will continue to work with states to ensure adherence to the Section 319 program reforms, including the new grant guidelines and annual assessments of state progress.

The EPA has a priority goal that tracks the updates of nonpoint source management plans that will result in better targeting of resources through prioritization and increased coordination with USDA. The EPA's goal is that 100 percent of State Plans will be up-to-date by September 2015. The update of state Nonpoint Source Management Programs is important for the setting of state priorities and strategic targeting of Section 319 funds (along with state match and other funds) towards the most pressing nonpoint source problems.

Nonpoint Source activities support efforts toward achieving the agency's priority goal: *Improve, restore, and maintain water quality by enhancing nonpoint source program leveraging, accountability, and on-the-ground effectiveness to address the nation's largest sources of pollution. By September 30, 2015, 100 percent of the states will have updated nonpoint source management programs that comport with the new Section 319 grant guidelines that will result in better targeting of resources through prioritization and increased coordination with USDA.*

Sustainable Infrastructure

The EPA will continue to implement its Sustainable Infrastructure Strategy and work with its partners to facilitate the voluntary adoption of effective management practices by water sector utilities. The agency will work with other key partners, such as local officials and academia, to help increase public understanding and support for sustaining the nation's water infrastructure. In FY 2014 and beyond, the EPA, along with its partners, will continue to recognize and enhance efforts to more effectively manage water and wastewater utilities, especially in small and disadvantaged communities through promotion of Best Practices for Sustainability, effective utility management workshops, and improved access to information.

The WaterSense program is a key component of the agency's efforts to ensure long-term sustainable water infrastructure, contribute to GHG reductions, and help communities adapt to drought and climate change. WaterSense provides consumers with a reference tool to identify and select water-efficient products to help reduce water demand and wastewater flows. In July 2014, the agency issued voluntary specifications for three water-efficient service categories (certification programs for irrigation system auditors, designers, and installation and maintenance professionals) and six product categories (residential toilets, bathroom faucets and accessories, showerheads, flushing urinals, pre-rinse spray valves, and weather-based irrigation controllers). The program also has a new homes specification designed to save water indoors as well as outdoors for new single family and multi-family homes. Product specifications include water efficiency as well as performance criteria to ensure that products not only save water but also work as well as standard products in the marketplace. Products may only bear the WaterSense label after being independently certified to ensure that they meet WaterSense specifications.

In a short timeframe, WaterSense has become a national symbol for water efficiency among utilities, plumbing manufacturers, and consumers. Awareness of the WaterSense label is growing every day. As of December 2014, more than 2,200 different models of high-efficiency toilets,

8,700 faucet models and accessories, 338 models of flushing urinals, 3,000 models of showerheads, and 181 models of weather-based irrigation controllers had earned the WaterSense label. More than 390 homes also have earned the WaterSense label. Cumulative savings in the program due to products shipped through the end of 2013 (the most recent year for which there is data) exceeds 757 billion gallons, enough water to supply all the homes in the United States for 26 days – and \$14.2 billion in water, sewer, and energy bill savings. The energy savings associated with reducing the need to move, treat, and heat that water is equivalent to 37 MMTCO₂E of greenhouse gas reductions.³²⁵

WaterSense has more than 1,600 partners which include manufacturers, retailers, builders, utilities, and community organizations that help to educate consumers on the benefits of switching to water-efficient products. WaterSense also is working within the federal government to ensure that it leads by example through the use of water-efficient products and practices. In FY 2015, the agency plans to release a final specification for commercial flushometer valve toilets.

In FY 2016, the agency will work on specifications for soil moisture-base irrigation controllers and landscape irrigation sprinklers building on research initiated in FY 2014. The program will also research other residential and commercial product and service categories to inform future specifications. The program will continue a campaign initiated in 2014 to work with the hospitality sector and other sectors to promote best management practices developed to support commercial and institutional facilities.

Wastewater System Capabilities

Aging systems and the increasing impacts of climate change create opportunities for innovation and new approaches for drinking water and wastewater infrastructure. The Budget includes \$2.3 billion for EPA's Clean Water and Drinking Water State Revolving Funds (SRFs) and \$50 million in technical assistance, training, and other efforts to enhance the capacity of communities and states to plan and finance drinking water and wastewater infrastructure improvements. Within this \$50 million, \$22 million is requested to build the technical, managerial, and financial capabilities of wastewater systems (remaining resources are included in the Drinking Water program). These resources build on the successful Clean Water State Revolving Fund program, and aim to make wastewater infrastructure more resilient and better able to protect and improve public health, the natural environment, and economic vitality. An integrated planning process has the potential to identify a prioritized critical path to achieving the water quality objectives of the CWA by identifying efficiencies in implementing competing requirements that arise from separate wastewater and stormwater projects, including capital investments and operation and maintenance requirements. This approach also can lead to more sustainable and comprehensive solutions, such as green infrastructure, that improve water quality. The integrated planning approach is not about lowering existing regulatory or permitting standards or delaying necessary improvements. Rather, it is intended to be an option provided to help municipalities meet their CWA obligations by optimizing the benefits of their infrastructure improvement investments through the appropriate sequencing of work. Also within this \$50 million is funding for the

³²⁵Watersense Accomplishment Report (updated monthly) http://www.epa.gov/watersense/docs/ws_accomplishments_2013_3-page_508.pdf.

Water Infrastructure and Resiliency Finance Center, which will help communities across the country improve their wastewater and stormwater systems, particularly through innovative financing and by building resiliency to climate change.

The agency's request includes a realignment of the Environmental Finance program from the Office of the Chief Financial Officer, for a total 2016 request of \$2.8 million across the Surface Water Protection and Drinking Water programs. This program manages the Environmental Financial Advisory Board and provides grants to a network of university-based Environmental Finance Centers which deliver financial outreach services, such as technical assistance, training, expert advice, finance education, and full cost pricing analysis to states, local communities and small businesses. The EPA's FY 2016 request also includes additional resources above the realigned base for the Environmental Finance Centers.

The EPA plans on assisting communities develop integrated plans through a combination of direct technical assistance and competitive awards. The EPA will develop and disseminate tools and conduct training to promote improved planning and enhance capacity to address asset management and finance alternatives, energy management, water efficiency and climate resiliency. The EPA will continue to expand efforts to promote effective utility management for small systems in coordination with other agencies and to promote improved energy efficiency and management at all wastewater treatment works. The EPA will conduct case studies of innovative financing approaches and barriers to water and energy efficiency, water reuse and green infrastructure investments.

Policy and oversight of the Clean Water State Revolving Funds, which provide low-interest loans to help finance wastewater treatment facilities and other water quality projects, also are supported by this program. In managing the Clean Water State Revolving Funds, the EPA continues to work with states to meet several key objectives:

- Fund projects designed as part of an integrated watershed approach to sustain communities, encourage and support green infrastructure, and preserve and create jobs;
- Link projects to environmental results through the use of water quality and public health data;
- Maintain the excellent financial condition of the funds;
- Continue to support states' efforts in developing integrated priority lists to address all eligible project types; and,
- Work with state and local partners to assess ongoing needs and implement a sustainability policy, including a focus on management and pricing issues for wastewater utilities, to encourage conservation and to provide adequate long-term funding for future capital needs.

The agency also will provide oversight and support for Congressionally-mandated projects related to water and wastewater infrastructure as well as management and oversight of grant

programs, such as the Section 106 grants, the Mexico Border program, and the Alaska Native Villages program.

Healthy Communities

The EPA's request includes enhanced support for green infrastructure activities and efforts directed toward Municipal Separate Storm Sewer Systems (MS4s) to further sustainability goals and to make a visible difference at the local level by protecting water resources and increasing community resiliency. Green Infrastructure is a cost-effective and resilient approach to our stormwater infrastructure needs that provides many community benefits: improving water and air quality; reducing energy use and mitigating climate change; improving habitat for wildlife; and reducing a community's infrastructure cost and promoting economic growth.³²⁶ Incorporating green infrastructure and enhancing stormwater management helps to create livable urban communities and improve the quality of urban waters.

Efforts directed toward MS4s, particularly newly regulated MS4s, will support clean water goals of protecting the Nation's waterbodies from the harmful effects of stormwater discharges. In FY 2016, the EPA will continue to strengthen the MS4 program in communities across the country, by directing resources toward a focused effort to support MS4s in addressing a full range of stormwater management issues.

In 2016, the EPA will assist and support communities in a numbers of areas, including:

Green Infrastructure

- Continue technical assistance to help communities more easily implement green infrastructure programs that can improve water quality and increase resiliency to the effects of climate change and disseminate information about successful approaches for adopting green programs.
- Provide outreach and resources on the benefits of using green infrastructure including cost savings, improved environmental outcomes, and community enhancements.
- Collaborate with federal and community partners to leverage complementary efforts to lower the barriers to local green infrastructure use and increase the rate of adoption.

Municipal Separate Storm Sewer Systems

- Provide technical assistance to help MS4s evaluate and change their codes and ordinances, develop pollution prevention and illicit discharge detection programs, and develop programs to oversee active and post construction discharges. Funds would be used to assist newly regulated MS4s develop stormwater programs.
- Develop training and mentoring relationships between the new MS4s and nearby seasoned MS4s that could provide guidance and advice. The funds will assist new MS4s

³²⁶ http://water.epa.gov/infrastructure/greeninfrastructure/gi_why.cfm#Community.

to develop proactive programs to prevent water quality impairment and result in the issuance of better permits.

- Work with EPA regional offices to develop and implement plans to strengthen MS4 permits as they are renewed, and provide support to states on permit development including developing permit provisions, fact sheets, and response to comments.

Urban Waters

In FY 2016, the agency will continue to assist communities, particularly underserved communities, to support local efforts to restore and protect the quality of their urban waters. The EPA will implement this Urban Waters program and will continue to co-lead the Urban Waters Federal Partnership.

Many urban waters are impaired by pathogens, excess nutrients, and contaminated sediments that result from sanitary sewer and combined sewer overflows, polluted runoff from urban landscapes, and legacy contamination. Such impairments impact public and aquatic health and impact local economic growth. The EPA will assist communities, particularly underserved communities, in restoring and revitalizing urban waterways and the surrounding land through partnerships with governmental, business, community organizations and other local partners. Areas of focus may include: water quality restoration as a driver for economic development; human health and related risk communication, climate resiliency efforts such as green infrastructure solutions to integrate water quality and community development goals, youth engagement, education and outreach, planning for sustainable financing, technical support, and training. In FY 2016, the EPA will support place-based work by:

- Providing small grants and targeted technical assistance to support innovative community-driven solutions that accelerate measurable improvements in water quality. Resources will go to projects that advance program priorities, which may include: community greening and green infrastructure, community-driven water quality monitoring and data collection, and community planning and visioning.
- Continuing to provide technical assistance and networking support through the EPA's Urban Waters Learning Network, a network of urban waters practitioners across the country. This peer-to-peer network is designed to increase sustainability of local efforts by providing support such as: one-on-one technical support, webinars on topics identified by Network members and by providing a venue for training and resources announcements. Resources developed through this network will be made available nationally, thus effectively upscaling the EPA's activities with communities and leveraging the program's place-based efforts for greater national impact.

The EPA will continue to co-lead the Urban Water Federal Partnership to advance urban water goals at the 19 Partnership locations. At these locations, urban waters partnerships implement policy actions and on-the-ground projects that integrate federal support with local stakeholder actions. Each of these local partnerships works to remove barriers to achieving local workplans consistent with national action principles and existing authorities. The partnership will continue

to align and leverage federal resources from the EPA, DOI, USDA and other partners to meet local needs more effectively and to advance shared multi-agency priorities. For example, the partnership will help address storm water management and promote green infrastructure to improve water quality through identification and transfer of best practices and successful local approaches. The Partnership will continue to identify and champion innovative approaches to making the delivery of Federal resources to communities more effective and integrated. To that end, EPA and other Partnership members will continue to develop and support many local partners by providing the following resources:

- The EPA will continue to support the Five-Star Urban Waters Grant Restoration Program, a public-private partnership that leverages private funding for local water quality projects. This fund is directly responsive to a long-standing need at the local level for a funding source that integrates support for both design and implementation of important local projects. This integration is made possible through the combination of federal and private sector funding.
- The EPA will work with the Partnership to support an Urban Waters Ambassador in each of its 19 designated Partnership locations. These individuals coordinate with local partners and leverage resources for on-the-ground results. They play a critical role in technical assistance transfer across communities. Ambassadors develop and disseminate models for interagency coordination on key issues such as green infrastructure implementation and funding.
- The EPA will continue to support development of the Urban Waters mapping tool. This tool helps local communities to identify existing and planned projects in the watershed in order to leverage efficiencies and identify opportunities to collaborate for more effective and integrated local action.

Performance Targets:

Measure	(bpv) Percent of high-priority EPA and state NPDES permits (including tribal) that are issued in the fiscal year.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	95	95	100	100	80	80	80	80	Permits
Actual	144	138	132	128	55	77			

Measure	(uw1) Number of urban water projects initiated addressing water quality issues in the community.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				3	10	30	22	49	Projects
Actual				46	9	65			

Measure	(uw2) Number of urban water projects completed addressing water quality issues in the community (cumulative).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target							61	78	Projects
Actual									

Measure	(L) Number of water body segments identified by states in 2002 as not attaining standards, where water quality standards are now fully attained (cumulative).								Units
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	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	2,270	2,809	3,073	3,324	3,727	3,829	4,016	4,166	Segments
Actual	2,505	2,909	3,119	3,527	3,679	3,866			

Measure	(bpx) Extent of priority areas identified by each state that are addressed by EPA-approved TMDLs or alternative restoration approaches for impaired waters that will achieve water quality standards. These areas may also include protection approaches for unimpaired waters to maintain water quality standards.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target							8	8	Priority Watershed Areas
Actual									

Measure	(wq2) Remove the specific causes of water body impairment identified by states in 2002 (cumulative).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	6,891	8,512	9,016	10,161	11,634	12,134	12,788	13,288	Causes
Actual	7,530	8,446	9,527	11,134	11,754	12,288			

Measure	(wq3) Improve water quality conditions in impaired watersheds nationwide using the watershed approach (cumulative).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	102	141	208	312	370	408	446	484	Watersheds
Actual	104	168	271	332	376	411			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$5,992.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$650.0 / +2.5 FTE) This increase reflects a realignment of funding for the Center for Environmental Finance to the Drinking Water and Surface Water Protection Programs to support the new Water Finance Center as part of the water infrastructure investments.
- (-\$2,200.0) Resources have been realigned to the new program/project for WIFIA. This realignment represents a transfer of base FY 2015 resources for WIFIA in Surface Water Protection to the new program project for WIFIA. This adjustment better reflects the need for WIFIA administration, planning, and development to occur across wastewater and drinking water programs.
- (+\$1,010.0) This program change reflects an increase of IT and telecommunications resources for background checks and GIS services to manage increasing costs.
- (+\$21,866.0 / +4.0 FTE) This program change reflects an increase in funding for water infrastructure to build the technical, managerial, and financial capabilities of wastewater systems. As part of this change the EPA will:

- Invest \$5.2 million to develop capacity of wastewater systems to better address asset management, energy management, water efficiency, and climate resiliency.
 - Invest \$13 million to assist communities to develop integrated plans through a combination of direct technical assistance and competitive grants.
 - Invest \$2.9 million for the Water Infrastructure and Resiliency Finance Center and Center for Environmental Finance to help communities across the country improve their wastewater, drinking water, and stormwater systems, particularly through innovative financing.
- (+\$4,500.0) This program change reflects an increase in support for a new approach for measuring improvements in water quality. It will aid in the development of tools needed to automate the linking of state assessment data, make updates and necessary improvements to incorporate data into EPA data systems, and begin efforts to assist states in implementing the new approach.
 - (+\$7,500.0) This program change reflects an increase in support for green infrastructure and MS4 activities to further the agency's sustainability goals. The EPA will expand Green Infrastructure technical assistance efforts to include more communities. The agency also will assist newly regulated MS4s to develop effective stormwater plans.
 - (-\$2,611.0 / -9.5 FTE) This program change reflects a reduction for surface water activities, including NPDES regulatory and technical assistance; water quality criteria; TMDL program implementation; and non-point source management.
 - (+\$2,322.0 / +12.5 FTE) This program change reflects an increase for Community activities in the clean water program. This increase will enable EPA to focus resources and programs to better support the efforts of environmentally overburdened, underserved, and economically distressed communities. These efforts will proactively address endemic and emerging environmental challenges in ways that build a community's long-term sustainability.

Statutory Authority:

Clean Water Act, 33 U.S.C. – Various Sections 1251 to 1387.

Water Infrastructure Finance and Innovation

Program Area: Water Quality Protection

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$0.0</i>	<i>\$0.0</i>	<i>\$5,000.0</i>	<i>\$5,000.0</i>
Total Budget Authority / Obligations	\$0.0	\$0.0	\$5,000.0	\$5,000.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

Increasing investment in the nation's water infrastructure has been a major priority of the Administration and the Congress. To help address this priority, the Congress enacted the Water Infrastructure Finance and Innovation Act of 2014. WIFIA is a subtitle within the Water Resources Reform and Development Act of 2014. WIFIA creates a 5-year pilot program for water infrastructure investment and provides low-interest federal loans to eligible entities for large water and wastewater projects. In addition to the existing State Revolving Fund programs, WIFIA can provide an additional source of low cost capital to help meet the United States' ever growing water infrastructure needs and address key priorities.

WIFIA authorizes the EPA to provide federal credit assistance to eligible entities. Federal credit assistance may be in the form of a direct federal loan or a guarantee of a loan or other debt obligation funded by an outside lender. It is expected that entities with complex water and wastewater projects will be attracted to WIFIA and the EPA would work to assure that the goal of providing assistance to a diverse set of projects is reached.

Beginning in FY 2015 and continuing into FY 2016, the EPA will conduct the significant work of developing a WIFIA program. The agency's FY 2016 budget request will continue the development and lay the groundwork for the program.

FY 2016 Activities and Performance Plan:

The agency is focused on executing a thoughtful and efficient design and plan to implement WIFIA. Beginning in late FY 2014, the agency hosted numerous listening sessions across the country in order to gain insight from stakeholders and potential borrowers, and those with experience with other federal credit programs.

The EPA will direct resources as available in FY 2016 to continue the complex work necessary to stand up a new federal loan program. Funding is requested to establish policy goals, program, scope, policies, procedures, evaluation criteria, application processes, internal controls and governance, and other similar efforts necessary to inform credit subsidy models. The agency will work within overall staffing levels to support this program. The EPA may use contract resources for additional specialized financial, legal, and engineering expertise to address potentially very complex issues.

Performance Targets:

Currently, there are no performance targets for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$268.0) This change reflects fixed and other costs for working capital fund.
- (+\$2,200.0) This realignment of resources is for the new program project for WIFIA. This realignment represents a transfer of base FY 2015 resources for WIFIA in Surface Water Protection to the new program project for WIFIA. This adjustment better reflects the need for WIFIA administration, planning, and development to occur across wastewater and drinking water programs.
- (+\$2,532.0) This program change reflects an increase that will lay the groundwork for a WIFIA program that would provide additional assistance nationwide for water and wastewater infrastructure.

Statutory Authority:

Water Resources Reform and Development Act of 2014 (P.L. 113-121).

Program Area: Indoor Air and Radiation

Indoor Air: Radon Program

Program Area: Indoor Air and Radiation

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$1,790.0</i>	<i>\$3,055.0</i>	<i>\$3,386.0</i>	<i>\$331.0</i>
Science & Technology	\$219.3	\$198.0	\$0.0	(\$198.0)
Total Budget Authority / Obligations	\$2,009.3	\$3,253.0	\$3,386.0	\$133.0
Total Workyears	9.3	10.6	10.6	0.0

Program Project Description:

Title III of the Toxic Substances Control Act (TSCA) directs the EPA to undertake a variety of activities to address the public health risk posed by exposure to indoor radon. Under the statute, the EPA studies the health effects of radon, assesses exposure levels, sets an action level, provides technical assistance, and advises the public of steps they can take to reduce exposure.

Radon is the second leading cause of lung cancer in the United States – and the leading cause of lung cancer mortality among non-smokers – accounting for about 21,000 deaths per year. The EPA’s non-regulatory indoor radon program promotes actions to reduce the public’s health risk from indoor radon. The EPA and the Surgeon General recommend that people do a simple home test and, if levels above EPA’s guidelines are confirmed, reduce those levels by home mitigation using inexpensive and proven techniques. The EPA also recommends that new homes be built using radon-resistant features in areas where there is elevated radon. Nationally, risks from radon have been reduced in many homes over the years, but many are still in need of mitigation. The percent increase in the number of homes with operating mitigation systems from 1990 to 2012 increased by 547 percent, going from 175,000 to 1,047,000 homes over 23 years. During the same period, the estimated number of homes needing mitigation (i.e., having radon levels at or above 4 pCi/L and no mitigation system) increased by 14 percent; from about 6.2 million to 7.1 million homes.³²⁷ This voluntary program has succeeded in promoting partnerships between national organizations, the private sector, and more than 50 state, local, and Tribal governmental programs to achieve radon risk reduction.

FY 2016 Activities and Performance Plan:

In FY 2011, the EPA launched a new radon initiative with other federal agencies – the Federal Radon Action Plan – to attempt to significantly increase radon testing, mitigation, and radon resistant new construction within each agency’s sphere of responsibility. A significant number of the risk reduction activities in the Federal Radon Action Plan are targeted toward low income households. In FY 2016, the EPA will continue to lead the federal government’s response to

³²⁷ The number of homes with radon mitigation systems was developed from unpublished sales data provided by U.S. radon vent fan manufacturers (U.S. EPA, 2013).

radon and continue to implement the agency’s own multi-pronged radon program. The EPA will drive action at the national level to reduce radon risk in homes and schools through expansion of the Federal Radon Action Plan, partnerships with the private sector and public health groups, public outreach and education activities. The agency will encourage radon risk reduction as a normal part of doing business in the real estate marketplace, will promote local and state adoption of radon prevention standards in building codes, and will participate in the development of national voluntary standards (e.g., mitigation and construction protocols) for adoption by states and the radon industry.³²⁸

Performance Targets:

Measure	(R50) Percentage of existing homes with an operating radon mitigation system compared to the estimated number of homes at or above EPA's 4pCi/L action level.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	11.5	12.0	12.5	13.3	13.9	13.9	14.9	14.9	Percent of Homes
Actual	12.0	12.3	12.9	14.1	15	Data Avail 12/2015			

Measure	(R51) Percentage of all new single-family homes (SFH) in high radon potential areas built with radon reducing features.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	31.5	33.0	34.5	36.0	37.5	37.5	40.5	40.5	Percent of Homes
Actual	36.1	40.1	38.2	44.6	Data Avail 4/2015	Data Avail 12/2015			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$50.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$281.0) This program change reflects an increase to support important activities for increased action on radon, including data management improvement and implementation of policy changes for more sustainable and institutionalized radon risk reduction.

Statutory Authority:

CAA Amendments of 1990; Radon Gas and Indoor Air Quality Research Act; Title IV of the SARA of 1986; TSCA, Section 6, Titles II and Title III (15 U.S.C. 2605 and 2641-2671); and IRAA, Section 306.

³²⁸ <http://www.epa.gov/radon>.

Reduce Risks from Indoor Air

Program Area: Indoor Air and Radiation

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$12,437.0</i>	<i>\$13,552.0</i>	<i>\$14,057.0</i>	<i>\$505.0</i>
Science & Technology	\$245.5	\$289.0	\$412.0	\$123.0
Total Budget Authority / Obligations	\$12,682.5	\$13,841.0	\$14,469.0	\$628.0
Total Workyears	45.2	40.4	40.7	0.3

Program Project Description:

Title IV of the Superfund Amendments and Reauthorization Act of 1986 (SARA) gives the EPA broad authority to conduct and coordinate research on indoor air quality, develop and disseminate information, and coordinate risk reduction efforts at the federal, state, and local levels.

In this non-regulatory program, the EPA utilizes a range of strategies, including partnerships with non-governmental, professional, federal, state and local organizations, to educate and equip individuals, school districts, industry, the health care community, and others to take action to reduce health risks from poor indoor air quality in homes, schools, and other buildings. The air inside homes, schools, and offices can be more polluted than outdoor air even in the largest and most industrialized cities.³²⁹ People typically spend close to 90 percent of their time indoors – where concentrations of certain volatile organic compounds and air toxic pollutants are often two to five times higher than outdoors.³³⁰ Exposure to radon poses long term cancer risks and secondhand tobacco smoke is both a cancer risk in adults and a major contributor to childhood illnesses, including asthma attacks. People also are exposed indoors to unhealthy levels of combustion by-products such as carbon monoxide and asthma triggers, including mold, pests dust mites, and nitrogen dioxide. These conditions can impact everyone, but there is a disproportionate burden for children, the elderly, low-income families and people with respiratory conditions, including asthma.

Approximately 7 million children in the U.S. have asthma resulting in 151 thousand hospitalizations and nearly 10.5 million school days lost annually.^{331,332,333} Asthma persists into adulthood and the costs to society are high with medical and lost productivity costs estimated to

³²⁹ U.S. EPA. 1987. *The Total Exposure Assessment Methodology (TEAM) Study: Summary and Analysis Volume I*. EPA 600-6-87-002a. Washington, DC: Government Printing Office.

³³⁰ U.S. EPA. 1989. *Report to Congress on Indoor Air Quality, Volume II: Assessment and Control of Indoor Air Pollution*. EPA 40-6-89-001C. Washington, DC: Government Printing Office.

³³¹ National Health Interview Survey (NHIS) Data, 2011 <http://www.cdc.gov/asthma/nhis/2011/data.htm>;

³³² Hall MJ, DeFrances CJ, Williams SN, Golosinskiy A, Schwartzman A. National Hospital Discharge Survey: 2007 summary. National health statistics reports; no 29. Hyattsville, MD: National Center for Health Statistics. 2010.

³³³ National Surveillance of Asthma: United States, 2001-2010 http://www.cdc.gov/nchs/data/series/sr_03/sr03_035.pdf.

be \$56 billion annually³³⁴. Reducing racial and ethnic asthma disparities is a priority given that the prevalence of asthma in non-Hispanic Blacks and Puerto Rican children is twice that of white children. Compared to white children with asthma, black children are twice as likely to have an emergency department visit and to require hospitalization, and four times more likely to die due to asthma. According to the Centers for Disease Control, more than 3,400 people die unnecessarily from asthma each year in the U.S.³³⁵

Globally, indoor air pollution, primarily from unvented cooking and heating appliances, is the fourth leading cause of premature death and the worst environmental health risk factor in the world.⁴ The EPA provides important technical expertise to projects addressing these risks.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA's Indoor Air Program will continue to promote and assist the improvement of the design, operation, and maintenance of buildings, including homes and schools, to promote healthier indoor air and protect children and other vulnerable populations. The EPA will continue to build the capacity of community-based organizations to provide comprehensive asthma care that integrates management of indoor environmental asthma triggers and health care services, with a particular focus on populations disproportionately impacted by asthma, including low-income, minority and Tribal communities. Strong evidence indicates that asthma, which disproportionately affects these communities, is exacerbated and sometimes caused by exposures to environmental pollutants in homes. Further evidence indicates that investment in home interventions offers a powerful strategy for improving health outcomes and reducing or shifting health care costs from medical treatment to secondary prevention and thereby, improving a community's health, resilience and sustainability. EPA's asthma education and outreach program will continue to equip state, local and community-based programs to support delivery, infrastructure and sustainability of comprehensive asthma programs with an effective indoor environmental intervention component. The EPA will place a particular emphasis on serving low-income and minority populations disproportionately impacted by poor asthma outcomes. The EPA is one of three agency co-chairs of the Coordinated Federal Action Plan to Reduce Racial and Ethnic Asthma Disparities, an initiative under the auspices of the President's Taskforce on Environmental Health Risks and Safety Risks to Children.

Additionally, the EPA will continue to develop and provide indoor air quality technical guidance and assistance that directly supports states, tribes, local governments, the general public, and a wide range of non-governmental organizations and networks, such as those representing public health professionals, business officials, residential and commercial building designers and managers, school administrators, energy managers, and indoor air quality service providers. As part of this effort, the EPA will collaborate with public and private sector organizations to provide clear and verifiable protocols and specifications for promoting good indoor air quality and efficiently integrate these protocols and specifications into existing energy efficiency, green building, and health-related programs and initiatives to promote healthy buildings for a changing climate. The comprehensive and integrated specifications and protocols will address the control

³³⁴ Centers for Disease Control and Prevention, (May 2011) Asthma in the U.S. Vital Signs

<http://www.cdc.gov/vitalsigns/asthma/>

³³⁵ Centers for Disease Control. 2013. National Vital Statistics Report, Vol. 61, No. 4, May 8, 2013.

and management of moisture and mold, combustion gases, particles and VOCs, and protection and management of HVAC systems to ensure adequate ventilation and combustion safety. FY 2016 activities will include equipping the affordable housing sector with guidance to promote the adoption of these best practices with the aim of creating healthier, more energy efficient homes for low income families.

Internationally, the EPA will continue to support the efforts of the Global Alliance for Clean Cookstoves, a public-private initiative dedicated to developing a global market for clean and efficient cookstoves, to achieve adoption of clean cookstoves and fuels in 100 million households by 2020. The EPA also will continue to provide technical expertise and assistance to developing countries to assist organizations within those countries to reduce human health risks due to indoor smoke from cooking and heating fires. Since 2003, 18 million households worldwide have been documented to have adopted clean and efficient cooking practices through the EPA's and the Alliance's programs, reducing 60 million people's exposure to dangerous pollutants.

Performance Targets:

Measure	(R16) Percentage of parents of children with asthma aware of the EPA asthma program media campaign.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	>20	>30	>30	>30	>30	>30	>30	>30	Percent Aware
Actual	30	Data Not Avail	36	Data Not Avail	37	37			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$424.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$81.0 / + 0.3 FTE) This program change reflects an increase to support building, health, and physical science capacity and indoor air quality technical guidance development.

Statutory Authority:

CAA Amendments of 1990; Title IV of the SARA of 1986.

Radiation: Protection

Program Area: Indoor Air and Radiation

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Minimize Exposure to Radiation

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$8,945.8	\$8,576.0	\$9,517.0	\$941.0
Science & Technology	\$2,586.6	\$1,984.0	\$2,160.0	\$176.0
Hazardous Substance Superfund	\$1,992.1	\$1,985.0	\$2,180.0	\$195.0
Total Budget Authority / Obligations	\$13,524.5	\$12,545.0	\$13,857.0	\$1,312.0
Total Workyears	62.9	59.1	59.1	0.0

Program Project Description:

Congress has designated the EPA as the primary federal agency charged with protecting human health and the environment from harmful and avoidable exposure to radiation. The EPA has important general and specific duties depending on the enabling legislation (e.g., Atomic Energy Act, Nuclear Waste Policy Act, Clean Air Act, etc). The EPA’s Radiation Protection Program carries out these responsibilities through its federal guidance and regulatory development activities, including: oversight of operations at the Waste Isolation Pilot Plant (WIPP)³³⁶; regulation of airborne radioactive emissions, and development and determination of appropriate methods to measure radioactive releases and exposures under Section 112 of the Clean Air Act, which governs the EPA’s authority to regulate hazardous air pollutants.

Other agency responsibilities include radiation cleanup and waste management guidance, radiation pollution prevention and guidance to federal agencies on radiation protection standards and practices. The agency’s radiation science is recognized nationally and internationally; it is the foundation that the EPA, other federal agencies and states use to develop radiation risk management policy, guidance, and rulemakings. The agency works closely with other national and international radiation protection organizations, such as the National Academy of Sciences, the National Council on Radiation Protection and Measurements, the International Atomic Energy Agency, the International Commission on Radiation Protection and the Organization of Economic and Cooperative Development’s Nuclear Energy Agency to advance scientific understanding of radiation risk.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to implement its regulatory oversight responsibilities for Department of Energy (DOE) activities at the Waste Isolation Pilot Plant (WIPP) facility, as mandated by Congress in the WIPP Land Withdrawal Act of 1992. This includes conducting inspections of waste generator facilities and evaluating DOE’s compliance with applicable

³³⁶ Additional information at: <http://www.epa.gov/radiation/wipp/background.html>.

environmental laws and regulations to ensure the permanent and safe disposal of all radioactive waste shipped to WIPP.

The EPA expects to complete review of public comment received on its proposed revisions to the Uranium Mill Tailings Radiation Control Act, Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings (40 CFR 192), last reviewed in 1995. The agency also expects to issue its final rule for the related Hazardous Air Pollutants, Subpart W Standard for Radon Emissions from Operating Uranium Mill Tailings (40 CFR 61). Also, as recommended from the President’s Blue Ribbon Commission (BRC) on America’s Nuclear Future, the agency will work to ensure that the nation has generic, non-site-specific standards that protect public health and the environment from risks associated with geologic disposal of high-level radioactive waste.

Performance Targets:

Measure	(R37) Time to approve site changes affecting waste characterization at DOE waste generator sites to ensure safe disposal of transuranic radioactive waste at WIPP.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	70	70	70	70	70	70	70	70	Days
Actual	75	66	64	73	64	66			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$267.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$674.0) This program change reflects an increase to support ongoing rulemakings related to protection against radiation and radon from uranium mill tailings.

Statutory Authority:

AEA of 1954, as amended, 42 U.S.C. 2011 et seq. (1970), and Reorganization Plan #3 of 1970; CAA Amendments of 1990; CERCLA as amended by the SARA of 1986; Energy Policy Act of 1992, P.L. 102-486; Executive Order 12241 of September 1980, National Contingency Plan, 3 CFR, 1980; NWPA of 1982; PHSAs as amended, 42 U.S.C. 201 et seq.; SDWA; Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978; WIPP Land Withdrawal Act of 1992.

Radiation: Response Preparedness

Program Area: Indoor Air and Radiation

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Minimize Exposure to Radiation

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	\$2,844.2	\$2,454.0	\$3,317.0	\$863.0
Science & Technology	\$4,162.2	\$3,526.0	\$4,043.0	\$517.0
Total Budget Authority / Obligations	\$7,006.4	\$5,980.0	\$7,360.0	\$1,380.0
Total Workyears	37.1	37.5	39.2	1.7

Program Project Description:

The EPA generates policy guidance and procedures for the agency’s radiological emergency response under the National Response Framework (NRF) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The agency maintains its own Radiological Emergency Response Team (RERT) and is a member of the Federal Radiological Preparedness Coordinating Committee (FRPCC) and the Federal Advisory Team for Environment, Food and Health (the “A-Team”). The EPA responds to radiological emergencies, conducts national and regional radiological response planning and training, and develops response plans for radiological incidents or accidents.

FY 2016 Activities and Performance Plan:

In FY 2016, the RERT will maintain and improve its level of readiness to support federal radiological emergency response and recovery operations under the NRF and NCP. The EPA will design training and exercises to enhance the RERT’s ability to fulfill the EPA’s responsibilities and use them to improve overall radiation response preparedness.³³⁷

The EPA will continue to coordinate with interagency partners under the FRPCC to revise federal radiation emergency response plans and develop radiological emergency response protocols and standards. The agency will continue to develop guidance addressing lessons learned from incidents, including the Fukushima nuclear incident, and exercises to ensure more effective coordination of the EPA’s support with other federal and state response agencies. The EPA will continue to develop and maintain Protective Action Guides (PAGs) for use by federal, state and local responders. Additionally, the EPA will provide training on the use of PAGs to users through workshops and radiological emergency response exercises.

The EPA will continue to participate in planning and implementing international and federal table-top and field exercises including radiological anti-terrorism activities with the Nuclear Regulatory Commission (NRC), Department of Energy (DOE), Department of Defense (DOD) and Department of Homeland Security (DHS). The EPA also will continue to train state, local

³³⁷ Additional information can be accessed at: <http://www.epa.gov/radiation/rert/>.

and federal officials and provide technical support to federal and state radiation, emergency management, solid waste and health programs that are responsible for radiological emergency response and the development of their own preparedness programs.

The EPA will continue to develop and use both laboratory and field measurement methods, procedures and quality systems to support expedited assessment and characterization of outdoor and indoor areas impacted with radiological contamination. Application of these methods and procedures will support rapid assessment and triage of impacted areas (including buildings, indoor environments and infrastructure) and the development of cleanup strategies.

Performance Targets:

Measure	(R35) Level of readiness of radiation program personnel and assets to support federal radiological emergency response and recovery operations.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	90	90	90	90	90	93	93	93	Percent Readiness
Actual	90	97	97	92	99	94			

Measure	(R36) Average time before availability of quality assured ambient radiation air monitoring data during an emergency.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	0.8	0.7	0.7	0.5	0.5	0.5	0.3	0.3	Days
Actual	0.8	0.5	0.5	0.4	0.3	0.3			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$144.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$719.0 / +0.7 FTE) This program change reflects an increase for technical radiation expertise to support core emergency response activities including the development of guidance for radiation response.

Statutory Authority:

Atomic Energy Act (AEA) of 1954, as amended, 42 U.S.C. 2011 et seq. (1970), and Reorganization Plan #3 of 1970; Clean Air Act (CAA) Amendments of 1990; Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR 300; Executive Order 12241 of September 1980, National Contingency Plan, 3 CFR, 1980; Executive Order 12656 of November 1988, Assignment of Emergency Preparedness Responsibilities, 3 CFR, 1988; Homeland Security Act of 2002; Post-Katrina Emergency Management Reform Act of 2006 (PKEMRA); Public Health Service Act (PHSA), as amended, 42 U.S.C. 201 et seq.; Robert T. Stafford Disaster Relief and EAA, as amended, 42 U.S.C. 5121 et seq.; Safe Drinking Water Act (SDWA); and Title XIV of the Natural Disaster Assistance Act (NDAA) of 1997, PL 104-201 (Nunn-Lugar II).

Program Area: Climate Protection

Water Quality Research and Support Grants

Program Area: Congressional Priorities

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems; Protect Human Health

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Science & Technology	\$2,450.1	\$4,100.0	\$0.0	(\$4,100.0)
<i>Environmental Program & Management</i>	<i>\$12,700.0</i>	<i>\$12,700.0</i>	<i>\$0.0</i>	<i>(\$12,700.0)</i>
Total Budget Authority / Obligations	\$15,150.1	\$16,800.0	\$0.0	(\$16,800.0)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

In 2015, Congress appropriated \$12.7 million for an Environmental Protection: National Priority competitive grant program to provide training and technical assistance to small public water systems, wastewater systems and private well owners located in rural and urban communities to improve water quality and provide safe drinking water. The EPA expects to award from four to nine cooperative agreements totaling up to \$12.7 million. The purpose of these cooperative agreements is to provide training and technical assistance for small public water systems to help such systems achieve and maintain compliance with the Safe Drinking Water Act (SDWA), and to provide training and technical assistance for small publicly-owned wastewater systems, communities served by onsite/decentralized wastewater systems, and private well owners to improve water quality under the Clean Water Act (CWA).

FY 2016 Activities and Performance Plan:

EPA is not requesting funds to support this grant program in FY 2016.

Performance Targets:

There are no performance targets for this program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$12,700.0) There is no request for this program in FY 2016.

Statutory Authority:

SDWA, 42 U.S.C. §300j-1c, Section 1442. CWA.104(b)(3)

**Environmental Protection Agency
2016 Annual Performance Plan and Congressional Justification**

Table of Contents - Inspector General

Resource Summary Table	567
Program Area: Audits, Evaluations And Investigations.....	568
Audits, Evaluations, and Investigations.....	569

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

**APPROPRIATION: Inspector General
Resource Summary Table
(Dollars in Thousands)**

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inspector General				
Budget Authority	\$41,448.0	\$41,489.0	\$50,099.0	\$8,610.0
Total Workyears	252.4	263.0	268.0	5.0

*For ease of comparison, Superfund transfer resources for the audit and research functions are shown in the Superfund account.

Bill Language: Inspector General

For necessary expenses of the Office of Inspector General in carrying out the provisions of the Inspector General Act of 1978, \$50,099,000, to remain available until September 30, 2017. (Department of the Interior, Environment, and Related Agencies Appropriations Act, 2015.)

**Program Projects in IG
(Dollars in Thousands)**

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Audits, Evaluations, and Investigations				
Audits, Evaluations, and Investigations	\$41,448.0	\$41,489.0	\$50,099.0	\$8,610.0
Subtotal, Audits, Evaluations, and Investigations	\$41,448.0	\$41,489.0	\$50,099.0	\$8,610.0
TOTAL, EPA	\$41,448.0	\$41,489.0	\$50,099.0	\$8,610.0

*For ease of comparison, Superfund transfer resources for the audit and research functions are shown in the Superfund account.

Program Area: Audits, Evaluations And Investigations

Audits, Evaluations, and Investigations

Program Area: Audits, Evaluations, and Investigations

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Inspector General</i>	<i>\$41,448.0</i>	<i>\$41,489.0</i>	<i>\$50,099.0</i>	<i>\$8,610.0</i>
Hazardous Substance Superfund	\$9,435.9	\$9,939.0	\$8,459.0	(\$1,480.0)
Total Budget Authority / Obligations	\$50,883.9	\$51,428.0	\$58,558.0	\$7,130.0
Total Workyears	308.9	321.5	318.1	-3.4

Program/Project Description:

The EPA's Office of Inspector General provides independent audit, program evaluation, inspection and investigative services and products that fulfill the requirements of the Inspector General Act, as amended, by identifying fraud, waste, and abuse in agency, grantee and contractor operations, and by promoting economy, efficiency, and effectiveness in the operations of the agency's programs. Although OIG is a part of the EPA, to ensure its independence, as specified in the IG Act (as amended), the OIG is funded with a separate appropriation within the agency. OIG activities add value and enhance public trust and safety by providing the agency, the public, and Congress with independent analyses and recommendations that help the EPA management resolve risks and challenges, achieve opportunities for savings, and implement actions for safeguarding the EPA resources and accomplishing the EPA's environmental goals. OIG activities also prevent and detect fraud in the EPA's programs and operations, including financial fraud, laboratory fraud, and cybercrime. The OIG consistently provides a significant positive return on investment to the public in the form of recommendations for improvements in the delivery of the EPA's mission, reduction in operational and environmental risks, costs savings and recoveries, and improvements in program efficiencies and integrity.

In addition, the EPA Inspector General was designated by Congress in 2004 to serve as the IG for the U.S. Chemical Safety and Hazard Investigation Board and provides the full range of audit, evaluation and investigative services specified by the Inspector General Act, as amended. Specifically, the OIG will conduct required audits of the CSB's financial statements and of CSB's compliance with the Federal Information Security Management Act. In addition, the OIG will perform audits and evaluations of the CSB's programmatic and management activities and follow-up on prior audit recommendations.

FY 2016 Activities and Performance Plan:

The EPA OIG will assist the agency and the CSB in their efforts to reduce environmental and human health risks by making recommendations to improve program operations, save taxpayer dollars, and resolve previously identified major management challenges and internal control weaknesses. In FY 2016, the OIG will continue focusing on areas associated with risk, fraud, waste, and cybercrimes, and will expand its attention to making recommendations that improve operating efficiency, transparency, secured and trustworthy systems, and the cost effective attainment of the EPA's strategic goals and positive environmental impacts.

OIG's plans will be implemented through audits, evaluations, investigations, inspections and follow-up reviews in compliance with the Inspector General Act, applicable professional standards of the U. S. Comptroller General, and the Quality Standards for Federal Offices of Inspector General of the Council of Inspectors General on Integrity and Efficiency. OIG conducts the following types of audits: (1) program performance audits of agency operations, including those focused on the award and administration of grants and contracts; (2) financial statement audits; (3) financial audits of grantees and contractors; (4) efficiency audits; and (5) information resources management audits. In addition, program evaluations will be conducted in the areas of the EPA's mission objectives for improving and protecting the environment and public health via reviews of: (1) air; (2) water; (3) land cleanup and waste management; (4) toxics, chemical management and pollution prevention, (5) science, research, and management integrity; and (6) special program reviews including those generated by Hotline or Congressional requests.

The investigative mission of the OIG continues to evolve in conducting criminal, civil, and administrative investigations into fraud and serious misconduct within the EPA programs and operations that undermine the organization's integrity, public trust, and create an imminent risk or danger. OIG investigations are coordinated with the Department of Justice and other Federal, State, and Local law enforcement entities. These investigations often lead to successful prosecution and civil judgments wherein there is a recovery and repayment of financial losses. Major areas of investigative focus include: financial fraud, program integrity, threats to the agency's resources, employee integrity, cyber-crimes and theft of intellectual or sensitive data.

A significant portion of audit resources will be devoted to statutorily mandated work assessing the financial statements of the EPA and the CSB, as required by the Chief Financial Officers Act and the Accountability of Tax Dollars Act of 2002, respectively. OIG work will also include assessing the information security practices of the EPA and the CSB as required by the Federal Information Security Management Act and oversight of audits of the EPA assistance agreement recipients conducted pursuant to the Single Audit Act. The OIG will examine the delivery of national programs, as well as specific cross-regional and single region or place based issues including inspection of facilities that represent a risk to public health in response to stakeholder concerns, and continue providing audit and investigative oversight on the application of, and accountability for Recovery Act funds.

The OIG recognizes that as staffing levels continue to decrease, it will become increasingly challenging to keep up with current workload priorities. The OIG must balance the workload

with the capacity of a smaller workforce, while continuing to meet statutorily-mandated requirements and delivering a strong return on investment.

Based on prior work, cross-agency risk assessment, agency challenges, including those associated with the Chemical Safety Board, future priorities, and extensive stakeholder input, the OIG will concentrate its resources on efforts in the following strategic themes and continuing or prospective assignment areas during FY 2016:

Sound and Economical Financial Management

- improper payments
- internal controls
- annual financial statements
- audits of costs claimed by grantees and contractors
- grant and contract administration
- information technology capital investments
- technological changes create transformation opportunities
- the EPA transit subsidy program
- accounting system implementation excess costs
- travel card review
- purchase card and convenience check program
- oversight of clean water state revolving loan funds

Efficient Processes and Use of Resources

- management of the EPA's process improvement activities
- examination of and identification of the operational efficiencies, including consolidation of functions and facilities management
- organizational structure
- partnering or coordination with other agencies to maximize efficiencies
- impact of CSB's safety recommendations
- opportunities to reduce duplication, overlap and fragmentation within the EPA
- controls for travel of CSB employees, travel and purchase card
- CSB's Incident Screening, Deployment and Investigation Selection Processes
- the EPA's use of electronic reporting to enhance enforcement activities
- the EPA's leasing of computer equipment
- review of STAR grants for inefficiencies
- awareness of the EPA on policies and procedures related to Scientific Integrity and Research
- ORD management of reimbursable funds for research

Ensuring the Integrity of Science and Information

- protection from advanced persistent threats to steal/modify data
- Federal Information Security Management Act compliance
- scientific integrity, including peer review
- agency efforts to enhance its capability to respond to cyber-attacks

- cyber security/infrastructure development; and assessment of processes to ensure protection and security of information systems from fraud, waste and abuse
- the EPA Research and the Technology Transfer Act

Addressing At-Risk Populations, Chronic and Emerging Environmental Health Challenges

- energy and natural resources (exploration/extraction of oil, natural gas, and coal)
- inspection of High-Risk Management Program Facilities
- incorporating Environmental Justice into CAA Inspections for Air Toxics
- inspections and evaluations of CAA sources
- inspections of High-Risk management program facilities in Region 6
- assessment of progress toward program goals of Chesapeake Bay Initiative

Assessing Risk Management and Performance Measurement

- implementation of Federal Managers Financial Integrity Act, Federal Information Security Management Act and Government Performance and Results Act
- disaster response and homeland security and emergency preparedness and response including the Chemical Safety and Hazard Investigation Board
- Brownfields Revolving Loan Fund Assistance Agreement
- Construction Grants Awarded to the District of Columbia Water and Sewer Authority
- assessment of the EPA's classification of National Security Information
- evaluation of pollution prevention grant results and measures

Reviewing Effectiveness of Stewardship, Sustainability and Prevention

- sustainability importance in relation to agency decision-making processes, including Tribal programs
- assessment of the Clean Water State Revolving Fund Green Project Reserve Program
- review of the EPA and states regulating Mercury Contamination
- effectiveness of identifying contaminated recreational waters and communicating health risks

Assessing Program Integrity, Oversight, Enforcement and Efficient Rulemaking

- oversight of delegated programs, data systems, relationships with states/regions
- regulatory reform and elimination of duplicative programs
- grant/contract results in the achievement of intended environmental objectives
- data systems/requirements for state oversight
- the EPA's relationships with regions and states
- adequacy of the EPA's Oversight of State FIFRA Programs
- oversight of Clean Water State Revolving Loan Funds
- environmental risks from hazardous waste post-closure landfills
- the EPA's progress on meeting RCRA statutory mandate for minimum frequency of inspections at hazardous waste disposal facilities
- audit of the EPA's system development activities for the hazardous waste electronic manifest system (eManifest)

- oversight of Guam American Samoa and Commonwealth and Northern Marinas Islands Support Grants.

Investigations

The Office of Investigations’ (OI) mission is to conduct criminal, civil, and administrative investigations of fraud, waste and abuse and serious misconduct within the EPA’s programs, projects, and resources. OI investigations are worked in conjunction with the Department of Justice for criminal and civil litigation or the EPA’s management for administrative action. OI currently investigates the following: 1) fraudulent practices in awarding, performing, and paying the EPA contracts, grants, or other assistance agreements; 2) program fraud or other acts that undermine the integrity of, or confidence in agency programs, and create imminent environmental risks; 3) laboratory fraud relating to data, and false claims for erroneous laboratory results that undermine the basis for decision-making, regulatory compliance, or enforcement actions; 4) threats directed against the EPA’s employees or facilities; 4) criminal conduct or serious administrative misconduct by the EPA’s employees; and 5) intrusions into and attacks against the EPA’s network supporting program data, as well as incidents of computer misuse and theft of intellectual property or sensitive/proprietary data. Special attention will be directed towards identifying the tactics, techniques, and procedures that are being utilized by cyber criminals to obtain the EPA’s information.

Finally, OI develops recommendations or “lessons learned” for the EPA’s management to reduce the agency’s vulnerability to criminal activity. OI’s investigations provide measurable results wherein recovery and restitution of financial losses are achieved and administrative actions are taken to prevent those involved from further participation in any EPA’s programs or operation.

Follow-up and Policy/Regulatory Analysis

To further promote economy, efficiency and effectiveness, the OIG will conduct follow-up reviews of agency responsiveness to OIG recommendations to determine if appropriate actions have been taken and intended improvements have been achieved. This process will serve as a means for keeping Congress and the EPA leadership apprised of accomplishments, opportunities for needed corrective actions, and facilitate greater accountability for results from OIG operations.

Additionally, as directed by the IG Act, the OIG also conducts reviews and analysis of proposed and existing policies, rules, regulations and legislation to identify vulnerability to waste, fraud and abuse. These reviews also consider possible duplication, gaps or conflicts with existing authority, leading to recommendations for improvements in their structure, content and application.

Performance Targets:

Measure	(35B) Environmental and business recommendations or risks identified for corrective action.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	903	903	903	903	786	687	967	1,096	Recommendations
Actual	983	945	2011	1242	1003	944			

Measure	(35D) Criminal, civil, administrative, and fraud prevention actions.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	80	75	80	85	90	125	175	210	Actions
Actual	95	115	160	152	256	213			

Measure	(35A) Environmental and business actions taken for improved performance or risk reduction.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	318	334	334	334	307	248	268	303	Actions
Actual	272	391	315	216	215	324			

Measure	(35C) Return on the annual dollar investment, as a percentage of the OIG budget, from audits and investigations.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	120	120	120	110	125	132	220	248	Percent
Actual	150	36	151	743	248	734			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$4,117.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$1,531.0 / +5.0 FTE) This realigns resources from the Superfund account to the IG Management account to maximize the flexibility of resources for prioritizing audit activities.
- (+\$2,962.0) This program change reflects an increase of critical resources to allow the agency to carry out all critical mission essential functions, including audit functions for the EPA and the U.S. Chemical Safety Hazard and Investigation Board.

Statutory Authority:

Inspector General Act, as amended; Inspector General Reform Act; Reports Consolidation Act; Single Audit Act; CFO Act; Accountability of Tax Dollars Act of 2002, GMRA; PRIA; RCRA; FFMIA; FISMA; FQPA; TSCA; eManifest; DATA Act.

Inspector General Reform Act:

The following information is provided pursuant to the requirements of the Inspector General Reform Act:

- the aggregate budget request from the Inspector General for the operations of the OIG is \$58.6 million (\$50.1 million Inspector General; \$8.5 million Superfund Transfer);

- the aggregate enacted budget for the operations of the OIG is \$51.4 million (\$41.5 million Inspector General; \$9.9 million Superfund Transfer);
- the portion of the aggregate enacted budget needed for training is \$700 thousand (\$574 thousand Inspector General; \$126 thousand Superfund Transfer);
- the portion of the aggregate enacted budget needed to support the Council of the Inspectors General on Integrity and Efficiency is \$158 thousand (\$129.6 thousand Inspector General; \$28.4 thousand Superfund Transfer).

“I certify as the Inspector General of the Environmental Protection Agency that the amount I have requested for training satisfies all OIG training needs for FY 2016”.

“Pursuant to section 6(f)(3)(E) of the Inspector General Act of 1978, as amended (the Act), the Inspector General has submitted comments setting forth the Inspector General's conclusion that this Budget's request for the Office of Inspector General would substantially inhibit the Inspector General from performing the duties of the office. These comments are included in Appendix A in this document. Because this conclusion was not reached in time for it to be printed in the 2016 President's Budget request, the concern will be transmitted separately to Congress to meet the requirements of section 6(f)(3)(E).”

**Environmental Protection Agency
2016 Annual Performance Plan and Congressional Justification**

Table of Contents - Buildings and Facilities

Resource Summary Table	577
Program Area: Homeland Security	578
Homeland Security: Protection of EPA Personnel and Infrastructure.....	579
Program Area: Operations and Administration.....	581
Facilities Infrastructure and Operations.....	582

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

**APPROPRIATION: Building and Facilities
Resource Summary Table
(Dollars in Thousands)**

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Building and Facilities				
Budget Authority	\$27,691.3	\$42,317.0	\$51,507.0	\$9,190.0
Total Workyears	0.0	0.0	0.0	0.0

Bill Language: Building and Facilities

For construction, repair, improvement, extension, alteration, and purchase of fixed equipment, land or facilities of, or for use by, the Environmental Protection Agency, \$51,507,000, to remain available until expended: Provided, that the Environmental Protection Agency is authorized to purchase land for the construction of a consolidated research and office facility. (Department of the Interior, Environment, and Related Agencies Appropriations Act, 2015.)

**Program Projects in B&F
(Dollars in Thousands)**

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Homeland Security				
Homeland Security: Protection of EPA Personnel and Infrastructure	\$4,158.7	\$6,676.0	\$7,875.0	\$1,199.0
Operations and Administration				
Facilities Infrastructure and Operations	\$23,532.6	\$35,641.0	\$43,632.0	\$7,991.0
Subtotal, Facilities Infrastructure and Operations	\$23,532.6	\$35,641.0	\$43,632.0	\$7,991.0
TOTAL, EPA	\$27,691.3	\$42,317.0	\$51,507.0	\$9,190.0

Program Area: Homeland Security

Homeland Security: Protection of EPA Personnel and Infrastructure

Program Area: Homeland Security

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$4,805.0	\$5,460.0	\$5,118.0	(\$342.0)
Science & Technology	\$545.0	\$542.0	\$605.0	\$63.0
<i>Building and Facilities</i>	<i>\$4,158.7</i>	<i>\$6,676.0</i>	<i>\$7,875.0</i>	<i>\$1,199.0</i>
Hazardous Substance Superfund	\$1,057.1	\$1,097.0	\$1,113.0	\$16.0
Total Budget Authority / Obligations	\$10,565.8	\$13,775.0	\$14,711.0	\$936.0
Total Workyears	2.7	4.9	8.9	4.0

Program Project Description:

This program supports physical security and safeguards the agency's workforce, facilities, and assets based on federally mandated priorities related to physical access control and protecting critical infrastructure. The program aims to protect classified national security information through the construction and build-out of Secure Access Facilities (SAFs) and Sensitive Compartmented Information Facilities (SCIFs). Work under the Building and Facilities appropriation supports larger physical security improvements to leased and owned space.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to mitigate physical vulnerabilities in its facilities and incorporate physical security measures in new construction, new leases, and major renovations. In accordance with the Interagency Security Committee Physical Security Criteria for federal facilities, the agency provides a full range of security improvements. The EPA also will continue to install upgraded Physical Access Control Systems as mandated by Homeland Security Presidential Directive 12 and its implementing standards and will expand or realign existing laboratories for homeland security support activities that protect critical infrastructure. Construction and build-out of SAFs and SCIFs will be carried out as needed.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,199.0) This program change increases funding that is critical to fund projects that mitigate physical vulnerabilities and improve physical security at EPA facilities nationwide.

Statutory Authority:

Executive Order 13526; 32 CFR 2001; Interagency Security Committee Physical Security Criteria for Federal Facilities; Homeland Security Presidential Directive 12; Design Basis Threat, Interagency Security Committee, March 2013.

Program Area: Operations and Administration

Facilities Infrastructure and Operations
Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inland Oil Spill Programs	\$456.9	\$584.0	\$1,762.0	\$1,178.0
Environmental Program & Management	\$305,366.3	\$310,399.0	\$312,180.0	\$1,781.0
Science & Technology	\$75,013.3	\$68,339.0	\$79,170.0	\$10,831.0
Leaking Underground Storage Tanks	\$797.4	\$792.0	\$1,103.0	\$311.0
<i>Building and Facilities</i>	<i>\$23,532.6</i>	<i>\$35,641.0</i>	<i>\$43,632.0</i>	<i>\$7,991.0</i>
Hazardous Substance Superfund	\$70,445.1	\$75,055.0	\$78,160.0	\$3,105.0
Total Budget Authority / Obligations	\$475,611.6	\$490,810.0	\$516,007.0	\$25,197.0
Total Workyears	355.4	367.4	359.5	-7.9

Program Project Description:

The EPA's Buildings and Facilities (B&F) appropriation supports the design, construction, repair, and improvement of the EPA's federally owned and leased land and structures. Construction renovation and alteration projects costing more than \$150 thousand must use B&F funding.

B&F resources ensure that the agency complies with various mandates and goals including: the Energy Policy Act of 2005, the Energy Independence and Security Act of 2007 (EISA), Executive Orders (EO) 13514 and 13423,¹ and regulatory mandates associated with soil and water pesticides testing. B&F also enables the EPA to meet federal facility environmental targets and objectives related to: Greenhouse Gas Scope 1 and 2 emissions (25 percent by FY 2020); energy efficiency (the EPA expects a requirement for annual energy use reductions of two percent per year through FY 2025); water conservation (annual water use reductions of two percent per year through FY 2020); advanced metering; stormwater management; upgrades to the EPA's existing real estate portfolio to meet "high performance sustainable" green building standards (17 percent of existing real estate by FY 2016); and, the reduction of fossil fuel use in new buildings.

¹ Information is available at <http://www.fedcenter.gov/programs/eo13514/>, Federal Leadership in Environmental, Energy, and Economic Performance; and <http://www.fedcenter.gov/programs/eo13423/>, Strengthening Federal Environmental, Energy, and Transportation Management.

FY 2016 Activities and Performance Plan:

As part of the EPA's efforts toward becoming a High Performing Organization, the agency reviews space needs, and is implementing a long-term space consolidation plan that will reduce the number of occupied facilities, consolidate space within remaining facilities, and reduce square footage wherever practical. B&F resources support facility-related construction, and the repair and improvement (R&I) of the EPA's aging real estate inventory. Good stewardship practices demand that the physical conditions, functionality, safety and health, security and research capabilities of our facilities are adequately maintained to ensure successful completion of the EPA's mission requirements/goals.

The B&F appropriation is under significant strain in response to the massive demand for its resources and starting in FY 2016, new GSA imposed leasing requirements. In any given year, the EPA's programs and Regional Offices submit approximately \$80 to \$100 million in requests for B&F projects, well above the funding available. Almost every project is important to the long term condition or efficiency of the buildings. To further complicate matters, the agency projects that the need for B&F will increase in response to new GSA leasing practices, which restrict agencies from including sustainable features² in new leases to be paid over the life of the lease, and now require the agency to pay for them as tenant improvements [(TI) or up front and ongoing project costs]. This has significantly increased the TI cost for new leases at the same time that GSA and the agency are attempting to consolidate and move into new locations to meet new space utilization requirements. Projections indicate that in some cases, leasing a new office could cost the equivalent of the total B&F resources appropriated in a given fiscal year.

In FY 2016, the agency will continue to explore opportunities to reconfigure the EPA's workplaces with the goal of reducing long-term rent costs. This work will enable the agency to release office space in support of the President's June 10, 2010 memorandum on "Disposing of Unneeded Federal Real Estate." Space consolidation and reconfiguration will enable the EPA to reduce its footprint through a more efficient, collaborative, and technologically sophisticated workplace. Even if modifications are kept to a minimum, each move requires resources. For example, the EPA needed to relocate an additional 1,000 HQ employees from five program offices in existing Federal Triangle Space to accommodate the transfer of 450 employees from 1310 L Street. To accomplish such consolidations, the EPA must use a mix of EPM, S&T, B&F and/or Superfund funds depending upon the nature of the project. In order to capitalize on similar opportunities across EPA's facilities and capture significant cost savings, the President's Budget supports an investment in space optimization and reconfiguration.

The FY 2016 Budget also includes resources for ongoing projects that will provide critical support to aging laboratory facilities and are key to ensuring that the preeminent laboratory science can be provided to maintain a safe workplace, provide high quality science, support agency priorities, and advance the agency mission. Delaying essential repairs results in the deterioration of the EPA's facilities, which increases long-term repair costs.

² Many of these features are required by EISA or executive orders.

In FY 2016, the agency proposes to initiate space optimization projects with the potential for the greatest long-term cost savings, including the following:

- **Co-location of the Region 8 laboratory with the NEIC laboratory.** The EPA requests \$9 million in FY 2016 and will require an additional investment in FY 2018 in order to complete the space optimization in FY 2019. This space optimization project will provide the EPA with an efficient laboratory capable of high quality science that will advance the agency mission. In addition, the investment will produce non-B&F savings and avoided costs. Upon completion in FY 2019, the EPA will achieve a non-B&F annual rent avoidance of \$1.6 million and a \$500 thousand annual reduction in operation and maintenance costs. In addition, there will be no need to perform a costly renovation on the Region 8 laboratory. This project will reduce the space footprint by 39,215 rentable square feet and 84 parking spaces.
- **Space optimization of the Willamette Research Station to the Corvallis laboratory.** This project will cost \$1 million to complete. The agency anticipates that it will complete the project in FY 2019 and GSA will commence its process for releasing the excess property. Release of this property will avoid the need to perform a renovation on Willamette, estimated at approximately \$800 thousand, in addition to modest annual savings in operation and maintenance. Through this project, EPA will reduce its space footprint by 20,918 rentable square feet.

In FY 2016, the EPA will continue its phased approach to accomplish major B&F projects across the country involving mechanical systems nearing the end of their useful life that also will ultimately result in energy savings. A few examples are listed below.

- **Replacement of fume hoods and air handlers at the Air and Radiation Lab, Montgomery, AL., Phase 3.** This phase of the project will replace the fume hoods and air handler systems within the laboratory and complete the infrastructure replacement project. Phase 3 is estimated at \$3.3 million.
- **Implementation of Phase 2 of the Infrastructure Replacement Project at the Research and Development laboratory in Corvallis, OR.** This project will replace the ductwork, reduce the number of fume hoods by more than 40 percent and energy usage will be reduced by about 20 percent. New energy efficient equipment, procedures and methods will incorporate reliability, sustainability and safety while meeting mission requirements. This project is ongoing and the cost for Phase 2 is estimated at \$4.4 million.
- **Replacement of the main boiler #2 at the Andrew W. Breidenbach Environmental Research Center (AWBERC) in Cincinnati, OH.** This project is estimated at \$2.7 million.
- **Replacement of the Heating, Ventilation and Air Conditioning system (HVAC) with high performance variable air volume system and new fume hoods at the Chapel Hill, NC.** This project is estimated at \$4 million.

Performance Targets:

Work under this program also supports performance results in the Facilities Infrastructure and Operations program under the EPM appropriation and can be found in the Eight Year Performance Array in the Program Performance and Assessment section. Information on the agency's energy/GHG reduction initiative can be found in the agency's Strategic Sustainability Performance Plan at http://www.epa.gov/greeningepa/documents/sspp2013_508.pdf.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$7,991.0) This net program change, which includes a reduction in resources associated with the construction design and engineering for a consolidated Las Vegas laboratory, \$5 million supports construction associated with the agency's space consolidation efforts at headquarters and \$10 million supports space optimization projects to initiate work and laboratory upgrades at the NEIC/Region 8 laboratories and the Willamette Research Station/Corvallis laboratories.

Statutory Authority:

Federal Property and Administration Services Act; Public Building Act; Annual Appropriations Act; Robert T. Stafford Disaster Relief and Emergency Assistance Act; CWA; CAA; RCRA; TSCA; NEPA; CERFA; D.C. Recycling Act of 1988; Energy Policy Act of 2005; Energy Independence and Security Act of 2007; Executive Orders 10577, 12598, 13150, 13423, 13514, and 13653; Emergency Support Functions (ESF) #10 Oil and Hazardous Materials Response Annex; Homeland Security Presidential Decision Directive 63 (Critical Infrastructure Protection).

**Environmental Protection Agency
2016 Annual Performance Plan and Congressional Justification**

Table of Contents - Superfund

Resource Summary Table	588
Program Area: Indoor Air and Radiation.....	591
Radiation: Protection	592
Program Area: Audits, Evaluations and Investigations.....	594
Audits, Evaluations, and Investigations	595
Program Area: Compliance	600
Compliance Monitoring	601
Program Area: Enforcement	603
Environmental Justice	604
Superfund: Enforcement	606
Superfund: Federal Facilities Enforcement	610
Criminal Enforcement.....	613
Forensics Support.....	616
Program Area: Homeland Security	618
Homeland Security: Preparedness, Response, and Recovery	619
Homeland Security: Protection of EPA Personnel and Infrastructure.....	624
Program Area: Information Exchange / Outreach.....	626
Exchange Network	627
Program Area: IT / Data Management / Security	630
Information Security	631
IT / Data Management	634
Program Area: Legal / Science / Regulatory / Economic Review	638
Alternative Dispute Resolution.....	639
Legal Advice: Environmental Program	641
Program Area: Operations and Administration.....	644
Facilities Infrastructure and Operations	645
Financial Assistance Grants / IAG Management.....	648
Acquisition Management	651
Human Resources Management	654
Central Planning, Budgeting, and Finance	656

Program Area: Research: Sustainable Communities.....	659
Research: Sustainable and Healthy Communities	660
Program Area: Research: Chemical Safety and Sustainability	664
Human Health Risk Assessment.....	665
Program Area: Superfund Cleanup.....	668
Superfund: Emergency Response and Removal	669
Superfund: EPA Emergency Preparedness	674
Superfund: Federal Facilities	677
Superfund: Remedial	683
Superfund Special Accounts	693
Superfund Special Accounts	694

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

**APPROPRIATION: Hazardous Substance Superfund
Resource Summary Table**

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Hazardous Substance Superfund				
Budget Authority	\$1,167,097.3	\$1,088,769.0	\$1,153,834.0	\$65,065.0
Total Workyears	2,828.0	2,686.4	2,662.6	-23.8

*For ease of comparison, Superfund transfer resources for the audit and research functions are shown in the Superfund account.

Bill Language: Hazardous Substance Superfund

For necessary expenses to carry out the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), including sections 111(c)(3), (c)(5), (c)(6), and (e)(4) (42 U.S.C. 9611) \$1,153,834,000, to remain available until expended, consisting of such sums as are available in the Trust Fund on September 30, 2015, as authorized by section 517(a) of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and up to \$1,153,834,000 as a payment from general revenues to the Hazardous Substance Superfund for purposes as authorized by section 517(b) of SARA: Provided, That funds appropriated under this heading may be allocated to other Federal agencies in accordance with section 111(a) of CERCLA: Provided further, That of the funds appropriated under this heading, \$8,459,000 shall be paid to the "Office of Inspector General" appropriation to remain available until September 30, 2017, and \$16,217,000 shall be paid to the "Science and Technology" appropriation to remain available until September 30, 2017. (Department of the Interior, Environment, and Related Agencies Appropriations Act, 2015.)

Program Projects in Superfund

(Dollars in Thousands)

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Indoor Air and Radiation				
Radiation: Protection	\$1,992.1	\$1,985.0	\$2,180.0	\$195.0
Audits, Evaluations, and Investigations				
Audits, Evaluations, and Investigations	\$9,435.9	\$9,939.0	\$8,459.0	(\$1,480.0)
Compliance				
Compliance Monitoring	\$1,014.9	\$995.0	\$1,067.0	\$72.0

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Enforcement				
Criminal Enforcement	\$7,430.4	\$7,243.0	\$7,643.0	\$400.0
Environmental Justice	\$609.1	\$581.0	\$609.0	\$28.0
Forensics Support	\$2,291.2	\$1,083.0	\$1,124.0	\$41.0
Superfund: Enforcement	\$161,712.6	\$150,257.0	\$156,539.0	\$6,282.0
Superfund: Federal Facilities Enforcement	\$7,536.8	\$7,211.0	\$7,348.0	\$137.0
Subtotal, Enforcement	\$179,580.1	\$166,375.0	\$173,263.0	\$6,888.0
Homeland Security				
Homeland Security: Preparedness, Response, and Recovery	\$35,513.6	\$35,265.0	\$32,654.0	(\$2,611.0)
Homeland Security: Protection of EPA Personnel and Infrastructure	\$1,057.1	\$1,097.0	\$1,113.0	\$16.0
Subtotal, Homeland Security	\$36,570.7	\$36,362.0	\$33,767.0	(\$2,595.0)
Information Exchange / Outreach				
Exchange Network	\$1,383.0	\$1,328.0	\$1,366.0	\$38.0
IT / Data Management / Security				
Information Security	\$705.1	\$683.0	\$704.0	\$21.0
IT / Data Management	\$15,129.1	\$13,802.0	\$14,938.0	\$1,136.0
Subtotal, IT / Data Management / Security	\$15,834.2	\$14,485.0	\$15,642.0	\$1,157.0
Legal / Science / Regulatory / Economic Review				
Alternative Dispute Resolution	\$888.0	\$750.0	\$774.0	\$24.0
Legal Advice: Environmental Program	\$506.3	\$503.0	\$467.0	(\$36.0)
Subtotal, Legal / Science / Regulatory / Economic Review	\$1,394.3	\$1,253.0	\$1,241.0	(\$12.0)
Operations and Administration				
Central Planning, Budgeting, and Finance	\$21,723.1	\$22,352.0	\$24,277.0	\$1,925.0
Facilities Infrastructure and Operations	\$70,445.1	\$75,055.0	\$78,160.0	\$3,105.0
Acquisition Management	\$23,499.7	\$21,989.0	\$23,923.0	\$1,934.0
Human Resources Management	\$6,590.7	\$5,984.0	\$7,953.0	\$1,969.0
Financial Assistance Grants / IAG Management	\$3,221.4	\$2,725.0	\$3,027.0	\$302.0
Subtotal, Operations and Administration	\$125,480.0	\$128,105.0	\$137,340.0	\$9,235.0
Research: Sustainable Communities				
Research: Sustainable and Healthy	\$14,450.2	\$14,032.0	\$12,220.0	(\$1,812.0)

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Communities				
Research: Chemical Safety and Sustainability				
Human Health Risk Assessment	\$3,113.9	\$2,843.0	\$2,831.0	(\$12.0)
Superfund Cleanup				
Superfund: Emergency Response and Removal	\$190,290.6	\$181,306.0	\$190,732.0	\$9,426.0
Superfund: EPA Emergency Preparedness	\$7,710.2	\$7,636.0	\$7,843.0	\$207.0
Superfund: Federal Facilities	\$23,610.5	\$21,125.0	\$26,265.0	\$5,140.0
Superfund: Remedial	\$555,236.7	\$501,000.0	\$539,618.0	\$38,618.0
Subtotal, Superfund Cleanup	\$776,848.0	\$711,067.0	\$764,458.0	\$53,391.0
TOTAL, EPA	\$1,167,097.3	\$1,088,769.0	\$1,153,834.0	\$65,065.0

*For ease of comparison, Superfund transfer resources for the audit and research functions are shown in the Superfund account.

Program Area: Indoor Air and Radiation

Radiation: Protection

Program Area: Indoor Air and Radiation

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Minimize Exposure to Radiation

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$8,945.8	\$8,576.0	\$9,517.0	\$941.0
Science & Technology	\$2,586.6	\$1,984.0	\$2,160.0	\$176.0
<i>Hazardous Substance Superfund</i>	<i>\$1,992.1</i>	<i>\$1,985.0</i>	<i>\$2,180.0</i>	<i>\$195.0</i>
Total Budget Authority / Obligations	\$13,524.5	\$12,545.0	\$13,857.0	\$1,312.0
Total Workyears	62.9	59.1	59.1	0.0

Program Project Description:

This program addresses potential radiation risks found at some Superfund and hazardous waste sites. Through this program, the EPA ensures that Superfund site cleanup activities reduce and/or mitigate the health and environmental risk of radiation to safe levels. In addition, the program makes certain that appropriate cleanup technologies and methods are adopted to effectively and efficiently reduce the health and environmental hazards associated with radiation problems encountered at these sites, some of which are located near at-risk communities. Finally, the program ensures that appropriate technical assistance is provided on remediation approaches for National Priorities List (NPL) and non-NPL sites.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA's National Analytical Radiation Environmental Laboratory (NAREL) in Montgomery, Alabama, and National Center for Radiation Field Operations (NCRFO) in Las Vegas, Nevada, will continue to provide limited analytical and field support to manage and mitigate radioactive releases and exposures. These two organizations provide analytical and technical support for the characterization and cleanup of Superfund and Federal Facility sites. Support focuses on providing high quality data to support agency decisions at sites across the country.

The Radiation and Indoor Air program also provides specialized technical support on-site, including field measurements using unique tools and capabilities. In addition, NAREL and NCRFO provide data evaluation and assessment, document review, and field support through ongoing fixed and mobile capability. Thousands of radiochemical and mixed waste analyses are performed annually at NAREL on a variety of samples from contaminated sites. NAREL is the EPA's only laboratory with this in-house mixed waste analytical capability. NCRFO provides field-based technical support for screening and identifying radiological contaminants at NPL and non-NPL sites across the country, including air sampling equipment and expert personnel.

Performance Targets:

Work under this program also supports performance results in the Radiation: Protection Program found under the Environmental Programs and Management Tab and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$80.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$115.0) This program change reflects an increase to cover necessary updates to analytical and field equipment used at Superfund and Federal Facility sites.

Statutory Authority:

CERCLA, as amended by the SARA of 1986.

Program Area: Audits, Evaluations and Investigations

Audits, Evaluations, and Investigations

Program Area: Audits, Evaluations, and Investigations

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inspector General	\$41,448.0	\$41,489.0	\$50,099.0	\$8,610.0
<i>Hazardous Substance Superfund</i>	<i>\$9,435.9</i>	<i>\$9,939.0</i>	<i>\$8,459.0</i>	<i>(\$1,480.0)</i>
Total Budget Authority / Obligations	\$50,883.9	\$51,428.0	\$58,558.0	\$7,130.0
Total Workyears	308.9	321.5	318.1	-3.4

Program Project Description:

The EPA's Office of Inspector General provides audit, program evaluation, and investigative services and products that fulfill the requirements of the Inspector General Act, as amended, by identifying fraud, waste, and abuse in agency, grantee and contractor operations, and by promoting economy, efficiency, and effectiveness in the operations of the agency's Superfund program. OIG activities add value, promote transparency and enhance public trust by providing the agency, the public, and Congress with independent analyses and recommendations that help the EPA management resolve risks and challenges, achieve opportunities for savings, and implement actions for safeguarding the EPA resources and accomplishing the EPA's environmental goals. OIG activities also prevent and detect fraud in the EPA's programs and operations, including financial fraud, laboratory fraud, and cybercrimes. The OIG consistently provides a significant positive return on investment to the public in the form of recommendations for improvements in the delivery of the EPA's mission, program efficiency and integrity, reduction in operational and environmental risks, costs savings and recoveries.

FY 2016 Activities and Performance Plan:

The EPA's OIG will assist the agency in its efforts to reduce environmental and human health risks by making recommendations to improve Superfund program operations, save taxpayer dollars, and resolve previously identified major management challenges and internal control weaknesses. In FY 2016, the OIG will continue focusing on areas associated with risk, fraud, waste, and cybercrimes, and will expand its attention to making recommendations that improve operating efficiency, transparency, secured and trustworthy systems, and the cost effective attainment of the EPA's strategic goals and positive environmental impacts related to the Superfund program.

OIG plans will be implemented through audits, evaluations, inspections investigations, and follow-up reviews in compliance with the Inspector General Act, applicable professional standards of the U. S. Comptroller General, and the Quality Standards for Federal Offices of Inspector General of the Council of Inspectors General on Integrity and Efficiency. OIG conducts the following types of audits: (1) program performance audits, including those focused on the award and administration of grants and contracts; (2) financial audits of grantees and contractors; (3) efficiency audits; and (4) information resources management audits. In addition, program evaluations will be conducted in the areas of the EPA's mission objectives for improving and protecting the environment and public health via reviews of Superfund and other land issues. The OIG will also conduct investigations of, and seek prosecution of criminal activity and serious misconduct in the EPA's Superfund program and operations that undermine agency integrity, the public trust, and create imminent environmental risks, as well as seek civil judgments to obtain recovery and restitution of financial losses. Areas of investigative emphasis include financial fraud, program, employee and system integrity, and theft of intellectual or sensitive data.

The OIG recognizes that as staffing levels continue to decrease, it will become increasingly challenging to keep up with current workload priorities. The OIG must balance its workload with the capacity of a smaller workforce while continuing to meet statutorily mandated requirements and delivering a strong return on taxpayer investment.

Audits and Evaluations

OIG audits and program evaluations and inspections related to Superfund will identify program and management risks and determine if the EPA is efficiently and effectively reducing human health risks; taking effective enforcement actions; cleaning up hazardous waste; managing waste, restoring previously polluted sites to appropriate uses; and ensuring long-term stewardship of polluted sites. OIG assignments will include: (1) assessing the adequacy of internal controls in the EPA and its grantees and contractors to protect resources and achieve program results; (2) project management to ensure that the EPA and its grantees and contractors have clear plans and accountability for performance progress; (3) enforcement to evaluate whether there is consistent, adequate and appropriate application of the laws and regulations across jurisdictions with coordination between federal, state and local law enforcement activities; and (4) grants and contracts to verify that such awards are made based upon uniform risk assessment and capacity to account and perform, and that grantees and contractors perform with integrity and value.

Prior audits and evaluations of the Superfund program have identified numerous barriers to implementing effective resource management and program improvements. Therefore, the OIG will concentrate its resources on efforts in the following assignment areas:

- the EPA's oversight of the import/export of hazardous waste
- siting renewable energy on potentially contaminated land and mine sites
- the EPA's Region 2 oversight of the environmental programs operated by the US Virgin Islands
- optimization of Superfund-financed pump and treat systems
- the EPA's progress on reducing Taxpayer environmental liabilities

- confirmation of the EPA's time-critical removal actions in Cherryvale and other communities with lead contamination
- Superfund portion of the EPA's financial statement and FISMA audit
- Environmental Justice collaborative problem-solving Cooperative Agreement program
- Superfund Technical Assessment and Response Team (START) IV contract # EPS71306 awarded to Tetra Tech Inc.
- oversight of Superfund State Contract for Remedial Activities

The OIG also will evaluate ways to minimize fraud, waste, and abuse, with emphasis on identifying opportunities for cost savings and reducing risk of resource loss, while maximizing results achieved from Superfund contracts and assistance agreements.

Investigations

The Office of Investigations (OI) mission is to conduct criminal, civil, and administrative investigations of fraud, waste and abuse and serious misconduct within the EPA's Superfund program. OI investigations are worked in conjunction with the Department of Justice for criminal and civil litigation or the EPA's management for administrative action. OI currently investigates the following: 1) fraudulent practices in awarding, performing, and paying Superfund contracts, grants, or other assistance agreements; 2) program fraud or other acts that undermine the integrity of, or confidence in the Superfund program; 3) laboratory fraud relating to data, and false claims for erroneous laboratory results that undermine the basis for decision-making, regulatory compliance, or enforcement actions in the Superfund program; 4) threats directed against Superfund program employees or facilities; 4) criminal conduct or serious administrative misconduct by the EPA's employees involved in the Superfund program; and 5) intrusions into and attacks against the EPA's network supporting superfund program data, as well as incidents of computer misuse and theft of intellectual property or sensitive/proprietary superfund data. Special attention will be directed towards identifying the tactics, techniques, and procedures that are being utilized by cyber criminals to obtain Superfund program information.

Finally, OI develops recommendations or "lessons learned" for the EPA's management which works on the Superfund program to reduce the agency's vulnerability to criminal activity. OI's investigations provide measurable results wherein recovery and restitution of financial losses are achieved and administrative actions are taken to prevent those involved from further participation in any Superfund program or operation.

Follow-up and Policy/Regulatory Analysis

To further promote economy, efficiency and effectiveness, the OIG will conduct follow-up reviews of agency responsiveness to OIG recommendations for the Superfund program to determine if appropriate actions have been taken, and intended improvements have been achieved. This process will keep Congress and the EPA leadership informed of accomplishments, apprised of needed corrective actions, and will facilitate greater accountability for results from OIG operations.

Additionally, as directed by the IG Act, the OIG will review and analyze proposed and existing policies, rules, regulations and legislation pertaining to the Superfund program to identify vulnerability to waste, fraud and abuse. These reviews also consider possible duplication, gaps or

conflicts with existing authority, leading to recommendations for improvements in their structure, content and application.

Performance Targets:

Work under this program also supports performance measures in the Audits, Evaluations, and Investigations program project under the OIG appropriation. These measures can be found in the Eight-Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from the FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$591.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$1,531.0 / -5.0 FTE) This realigns resources from the Superfund account to the IG Management account to maximize the flexibility of resources for prioritizing audit activities.
- (-\$540.0 / -3.4 FTE) This program change reduces FTE in anticipation of savings from business process changes and the use of strategic sourcing for support required for the work of the OIG.

Statutory Authority:

Inspector General Act, as amended; Inspector General Reform Act; Reports Consolidation Act; Single Audit Act; CFO Act; Accountability of Tax Dollars Act of 2002, GMRA; PRIA; RCRA; FFMIA; FISMA; FQPA; TSCA; eManifest; DATA Act.

Inspector General Reform Act:

The following information is provided pursuant to the requirements of the Inspector General Reform Act:

- the aggregate budget request from the Inspector General for the operations of the OIG is \$58.6 million (\$50.1 million Inspector General; \$8.5 million Superfund Transfer);
- the aggregate enacted budget for the operations of the OIG is \$51.4 million (\$41.5 million Inspector General; \$9.9 million Superfund Transfer);
- the portion of the aggregate enacted Budget needed for training is \$700 thousand (\$574 thousand Inspector General; \$126 thousand Superfund Transfer);
- the portion of the aggregate enacted budget needed to support the Council of the Inspectors General on Integrity and Efficiency is \$158 thousand (\$129.6 thousand Inspector General; \$28.4 thousand Superfund Transfer).

“I certify as the Inspector General of the Environmental Protection Agency that the amount I have requested for training satisfies all OIG training needs for FY 2016”.

“Pursuant to section 6(f)(3)(E) of the Inspector General Act of 1978, as amended (the Act), the Inspector General has submitted comments setting forth the Inspector General's conclusion that this Budget's request for the Office of Inspector General would substantially inhibit the Inspector General from performing the duties of the office. These comments are included in Appendix A in this document. Because this conclusion was not reached in time for it to be printed in the 2016 President's Budget request, the concern will be transmitted separately to Congress to meet the requirements of section 6(f)(3)(E).”

Program Area: Compliance

Compliance Monitoring

Program Area: Compliance

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inland Oil Spill Programs	\$143.9	\$139.0	\$155.0	\$16.0
Environmental Program & Management	\$101,883.5	\$101,665.0	\$122,424.0	\$20,759.0
<i>Hazardous Substance Superfund</i>	<i>\$1,014.9</i>	<i>\$995.0</i>	<i>\$1,067.0</i>	<i>\$72.0</i>
Total Budget Authority / Obligations	\$103,042.3	\$102,799.0	\$123,646.0	\$20,847.0
Total Workyears	533.9	536.6	539.6	3.0

Program Project Description:

The EPA's Compliance Monitoring program's goal is to assure compliance with the nation's environmental laws and protect human health and the environment through inspections and other compliance monitoring activities. Compliance monitoring is comprised of all activities that determine whether regulated entities are in compliance with applicable laws, regulations, permit conditions, and settlement agreements. Compliance monitoring activities include data collection, analysis, data quality review, on and off-site compliance inspections, evaluations, investigations, and reviews of facility records and monitoring reports. The program conducts these activities to determine whether conditions that exist at Superfund sites may present imminent and substantial endangerment to human health or the environment. The program also verifies whether or not regulated sites are in compliance with environmental laws and regulations. The program focuses on providing information and system support for monitoring compliance with Superfund-related environmental regulations and contaminated site clean-up agreements. The program also ensures the security and integrity of its compliance information systems.

FY 2016 Activities and Performance Plan:

Superfund-related compliance monitoring activities are mainly reported and tracked through the agency's Integrated Compliance Information System (ICIS). In FY 2016, the Enforcement and Compliance Assurance program will focus on improvements to ICIS to support customers (e.g., the EPA, states, tribes, and local agencies) use of and access to the system for reporting and retrieval of regulatory requirements of the federal Enforcement and Compliance programs. In FY 2016, the Compliance Monitoring program is scheduled to complete ongoing and routine enhancements to ICIS for continued support of the federal Enforcement and Compliance Assurance program, and improve reporting to the public on government and facility compliance. The EPA will continue to ensure the security and integrity of these systems, and will use ICIS data to support Superfund-related regulatory enforcement program activities. In FY 2016, the Superfund portion of this program for ICIS-related work is \$190 thousand.

In FY 2016, the EPA also will continue to make Superfund-related compliance monitoring information available in the Enforcement and Compliance History Online (ECHO) data marts, the integrated data mart repository for ECHO, and where appropriate, to the public through the ECHO website.¹ This site provides communities with interactive access to information on compliance status. In FY 2016, the EPA will continue to develop additional tools and obtain new data sets (e.g., geospatial) for public use.

Performance Targets:

Work under this program also supports performance results in the Compliance Monitoring program under the Environmental Programs and Management appropriation and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$14.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$58.0) This program change reflects an increase for the Enforcement and Compliance History Online (ECHO) data marts and the integrated data mart repository for ECHO.

Statutory Authority:

Comprehensive Environmental Response, Compensation, and Liability Act as amended; Resource Conservation and Recovery Act; Clean Water Act; Safe Drinking Water Act; Clean Air Act; Toxic Substances Control Act; Emergency Planning and Community Right to Know Act; Residential Lead-Based Paint Hazard Reduction Act; Federal Insecticide, Fungicide, and Rodenticide Act; Ocean Dumping Act; North American Agreement on Environmental Cooperation; La Paz Agreement on US/Mexico Border Region; National Environmental Policy Act.

¹ For more information, refer to: <http://www.epa-echo.gov/echo>.

Program Area: Enforcement

Environmental Justice

Program Area: Enforcement

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$6,636.8	\$6,737.0	\$13,971.0	\$7,234.0
<i>Hazardous Substance Superfund</i>	<i>\$609.1</i>	<i>\$581.0</i>	<i>\$609.0</i>	<i>\$28.0</i>
Total Budget Authority / Obligations	\$7,245.9	\$7,318.0	\$14,580.0	\$7,262.0
Total Workyears	32.5	40.6	40.3	-0.3

Program Project Description:

The EPA is committed to fostering public health and sustainability in communities disproportionately burdened by pollution by integrating and addressing issues of environmental justice (EJ) in our programs and policies as part of our day-to-day business. Implementation of the EPA's strategic plan on environmental justice, Plan EJ 2014, is a key component to this commitment. The EPA's Environmental Justice program supports the implementation of Plan EJ 2014, and its subsequent plan which will be released in FY 2015, and is the focal point to address environmental justice issues, promote accountability, foster agency action on critical environmental justice issues, and encourage the community's voice.

The EJ program conducts outreach and provides technical assistance that empowers low income and minority communities to take action to protect themselves from environmental harm. The Superfund portion of the program focuses on issues that affect communities at or near Superfund sites. The EJ program complements and enhances the agency's community outreach and other work done under the Superfund program at affected sites. The agency also supports state and Tribal environmental justice programs and conducts outreach and technical assistance to states, local governments, and other stakeholders on environmental justice issues.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to implement environmental justice activities in support of the Superfund program consistent with the vision and commitments outlined in the agency's FY 2014-2018 Strategic Plan Cross-Cutting Fundamental Strategy for Working to Make a Visible Difference in Communities.

In FY 2016, the EJ program will continue to promote the active engagement of community groups, other federal agencies, states, local governments, and Tribal governments to recognize, support, and advance environmental protection and public health for overburdened communities at or near Superfund sites. The EJ program will guide the EPA's efforts to empower communities to protect themselves from environmental harms. These efforts help build healthy

and sustainable communities through technical assistance, enabling overburdened and disadvantaged groups to participate in the new green economy.

In FY 2016, the EJ program will continue to partner with other programs within the agency to create scientific analytical methods, a legal foundation, and public engagement practices that enable the incorporation of environmental justice considerations in the EPA's regulatory and policy decisions. Finally, the EJ program will continue to support the agency's efforts to strengthen internal mechanisms to integrate environmental justice into our day to day activities including communications, training, performance management, and accountability measures.

Performance Targets:

Work under this program supports activities that benefit disproportionately burdened minority, low-income, and Tribal populations. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$36.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$8.0 / -0.2 FTE) This program change reflects a reduction to support for such activities as the National Environmental Justice Advisory Committee (NEJAC).

Statutory Authority:

Executive Order 12898; Comprehensive Environmental Response, Compensation, and Liability Act, as amended.

Superfund: Enforcement
Program Area: Enforcement

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance
Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Hazardous Substance Superfund</i>	<i>\$161,712.6</i>	<i>\$150,257.0</i>	<i>\$156,539.0</i>	<i>\$6,282.0</i>
Total Budget Authority / Obligations	\$161,712.6	\$150,257.0	\$156,539.0	\$6,282.0
Total Workyears	819.3	768.2	771.3	3.1

Program Project Description:

The EPA’s Superfund Enforcement program protects communities by ensuring that responsible parties conduct cleanups, preserving federal dollars for sites where there are no viable contributing parties. The EPA’s Superfund Enforcement program ensures prompt site cleanup and uses an “enforcement first” approach that maximizes the participation of liable and viable parties in performing and paying for cleanups. In both the remedial and removal programs, the Superfund Enforcement program initiates civil, judicial, and administrative site remediation cases. The Superfund Enforcement program also provides litigation, legal and technical enforcement support to the Superfund program and the Department of Justice (DOJ) on Superfund enforcement actions and emerging issues. The Superfund Enforcement program develops waste cleanup enforcement policies and provides guidance and tools that clarify potential environmental cleanup liability, with specific attention to the cleanup, reuse and revitalization of contaminated properties. In addition, the Superfund Enforcement program ensures that responsible parties cleanup sites to reduce direct human exposure to hazardous substances. This ensures that the program provides long-term human health protections which ultimately make contaminated properties available for reuse.

The EPA negotiates cleanup agreements with Potentially Responsible Parties (PRPs) at hazardous waste sites and, where negotiations fail, either takes enforcement actions to require cleanup or expends Superfund appropriated dollars to remediate the sites. The DOJ supports the EPA’s Superfund Enforcement program through negotiations and judicial actions to compel PRP cleanup and to recover appropriated monies spent on cleanup. In tandem with this approach, the EPA has implemented various reforms to increase fairness, reduce transaction costs, promote economic development, and make sites available for appropriate reuse. The EPA also works to ensure that required legally enforceable institutional controls and financial assurance requirements are in place at Superfund sites to ensure the long-term protectiveness of Superfund cleanup remedies.

The agency promotes the “polluter pays” principle, cleaning up more sites and preserving appropriated dollars for sites without viable PRPs. Since the inception of the program, the

cumulative value of private party commitments for clean up is over \$39 billion (\$32.9 billion for cleanup work and \$6.4 billion in cost recovery).

FY 2016 Activities and Performance Plan:

Throughout FY 2016, the Superfund Enforcement program will ensure PRP participation in cleanups while promoting fairness in the enforcement process and will continue to maximize cost recovery from PRPs when the EPA expends appropriated funds. The agency's goal is to maximize PRP participation by reaching a settlement or taking an enforcement action by the time a remedial action starts for at least 99 percent of non-federal Superfund sites that have viable, liable parties. In FY 2014, the EPA reached a settlement or took an enforcement action at 100 percent of non-federal Superfund sites with viable, liable parties.² In FY 2016, the agency will continue efforts to accelerate negotiations of remedial design/remedial action cleanup agreements and will continue to focus efforts on negotiating removal agreements at contaminated properties to address contamination impacting local communities.

The agency also seeks to ensure trust fund stewardship through cost recovery efforts from responsible parties in order to recover response costs that have been expended from the Superfund Trust Fund. In FY 2016, in an effort to maximize the efficient use of Superfund enforcement appropriated resources, the EPA will continue to focus cost recovery efforts on those cases with unresolved past costs greater than \$500 thousand.

Special Accounts

In FY 2016, the agency will continue its efforts to establish and maximize the effectiveness of special accounts to facilitate cleanup. Special Accounts save taxpayers significant resources by using funds received in settlements with PRPs to clean up the specific Superfund sites that were the subject of the settlement agreement. Special Accounts provide needed cleanup dollars at many sites that otherwise may not have received funding absent the EPA's enforcement efforts. In FY 2014, the EPA created 51 Special Accounts, collected \$505.5 million for response work and accrued \$15.4 million in interest for a total of \$520.9 million in new funding. The agency disbursed or obligated \$221.8 million for response work (excluding reclassifications). The EPA also closed 39 Special Accounts and transferred \$3.1 million from Special Account receipts into the general part of the Superfund Trust Fund which was made available for the FY 2015 appropriation by Congress as part of the start of year balance in the Trust Fund, reducing the amount of funding needing to be transferred from general revenues. Since 1989, the EPA has created 1,259 Special Accounts, collected more than \$4.5 billion for response work and accrued \$428.3 million in interest for a total of \$4.9 billion. The agency has disbursed or obligated \$3 billion for response work. The EPA has closed 254 Special Accounts and transferred \$26.8 million from Special Accounts into the general part of the Superfund Trust Fund.

² For more information on Superfund Enforcement program results for FY 2014 visit <http://www2.epa.gov/enforcement/cleanup-enforcement-program-fy-2014-accomplishments>.

Working with DOJ

In FY 2016, the agency will provide the Department of Justice with \$21.8 million through an Interagency Agreement. Funding will provide support for the EPA's Superfund Enforcement program through such actions as negotiating consent decrees with PRPs, preparing judicial actions to compel PRP cleanup, and litigating to recover monies spent in cleaning up contaminated sites. The EPA's Superfund Enforcement program is responsible for case development and preparation, referral to the DOJ and post-filing actions, and for providing case and cost documentation support for the docket of current cases with the DOJ. The program also ensures that the EPA meets cost recovery statute of limitation deadlines, resolves cases, issues bills for oversight, and makes collections in a timely manner. By pursuing recovery of these costs, the program promotes the principle that polluters should either perform or pay for cleanups. This approach preserves appropriated resources to address contaminated sites where there are no viable or liable PRPs.

Return on Investment

During the past ten years, the Superfund civil enforcement investment has resulted in an average return of 7 dollars for every one appropriated dollar invested in the program. The total commitments obtained from responsible parties over that ten year period reached almost \$11 billion. In FY 2014, the Superfund Enforcement program secured private party commitments exceeding \$600 million.³ Of this amount, PRPs committed to perform future response work with an estimated value of more than \$454 million; agreed to reimburse the agency for \$57.7 million in past costs and \$89 million in oversight costs.

SCORPIOS

During FY 2016, the agency will continue to perform the financial management aspects of Superfund cost recovery and the collection of related debt to the federal government. The EPA will continue to calculate indirect cost and annual allocation rates to be applied to direct costs incurred by the EPA for site cleanup. These efforts include tracking and managing Superfund delinquent debt, maintaining the Superfund Cost Recovery Package Imaging and On-Line System (SCORPIOS), and using SCORPIOS Paperless Image and Document Enabled Reports (SPIDERs) to prepare cost documentation packages. The EPA's Enforcement program will continue to refine and streamline the cost documentation process to gain further efficiencies, and provide the Department of Justice case support for Superfund sites via SPIDER packages. The EPA's financial, programmatic, and legal offices will continue to maintain the accounting and billing of Superfund oversight costs attributable to responsible parties. These costs represent the EPA's cost of overseeing Superfund site cleanup efforts by responsible parties as stipulated in the terms of settlement agreements. In FY 2014, the agency collected \$227.5 million in cost recoveries, of which \$79.8 million were returned to the Superfund Trust Fund and \$147.7 million were deposited in site-specific, interest bearing special accounts.

³ For more information on Superfund Enforcement program results for FY 2014 visit <http://www2.epa.gov/enforcement/cleanup-enforcement-program-fy-2014-accomplishments>.

Performance Targets:

Measure	(078) Percentage of all Superfund statute of limitations cases addressed at sites with unaddressed past Superfund costs equal to or greater than \$500,000.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	100	100	100	100	100	100	100	100	Percent
Actual	100	100	100	100	100	100			

Measure	(285) Percentage of Superfund sites having viable, liable responsible parties other than the federal government where EPA reaches a settlement or takes an enforcement action before starting a remedial action.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	95	95	95	99	99	99	99	99	Percent
Actual	100	98	100	100	100	100			

Measure	(417) Millions of cubic yards of contaminated soil and groundwater media EPA has obtained commitments to clean up as a result of concluded CERCLA and RCRA corrective action enforcement actions.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				300	275	225	200	200	Million Cubic Yards
Actual				400	750	900			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$5,176.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$1,106.0 / +3.1 FTE) This program change increases support for PRP searches, settlements, and cost recovery.

Statutory Authority:

Comprehensive Environmental Response, Compensation and Liability Act; Small Business Regulatory Enforcement Fairness Act of 1996; Community Environmental Response Facilitation Act; National Environmental Policy Act; Atomic Energy Act; Uranium Mill Tailings Radiation Land Withdrawal Act; Uranium Mill Tailings Radiation Land Withdrawal Act; Safe Drinking Water Act; Chrominated Cooper Arsenate; Federal Grant and Cooperative Agreement Act; Federal Activities Inventory Reform Act; Federal Acquisition Regulations; Federal Managers Financial Integrity Act; Freedom of Information Act; Government Management Reform Act; Improper Payments Information Act; Inspector General Act; Paperwork Reduction Act; Privacy Act; Chief Financial Officers Act; Government Performance and Results Act; The Prompt Payment Act; Executive Order 12241; Executive Order 12656; National Historic Preservation Act.

Superfund: Federal Facilities Enforcement

Program Area: Enforcement

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Hazardous Substance Superfund</i>	<i>\$7,536.8</i>	<i>\$7,211.0</i>	<i>\$7,348.0</i>	<i>\$137.0</i>
Total Budget Authority / Obligations	\$7,536.8	\$7,211.0	\$7,348.0	\$137.0
Total Workyears	42.9	41.7	40.9	-0.8

Program Project Description:

The EPA's Superfund Federal Facilities Enforcement program ensures that sites with federal entities performing Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) responses and CERCLA sites with federal ownership are monitored and appropriate enforcement responses are pursued. After years of service and operation, some federal facilities contain environmental contamination, such as hazardous wastes, unexploded ordinance, radioactive wastes, or other toxic substances. To enable the cleanup and reuse of such sites, the Federal Facilities Enforcement program identifies and coordinates creative solutions that ensure the integrity of cleanups that protect both human health and the environment. These enforcement solutions help restore facilities so they can once again serve an important role in the economy and welfare of local communities and our country.

FY 2016 Activities and Performance Plan:

Pursuant to CERCLA Section 120, the EPA must enter into Interagency Agreements (IAs) with responsible federal entities to ensure protective cleanup of their National Priorities List (NPL) sites at a timely pace. The agreements provide that the EPA oversee the cleanups to ensure that they protect public health and the environment. These IA agreements govern cleanups at 174 Federal Facility Superfund sites, which include many of the Nation's largest and most complex cleanup projects with total annual costs between \$4.0 and \$7.0 billion.

With the September 2013 signing of the Tyndall (FL) Air Force Base IA,⁴ there remains only two agreements to be signed – at the Army's Redstone Arsenal in Alabama and at the 700 South 1600 East PCE Plume site near the George E. Wahlen Department of Veterans Affairs (VA) Medical Center in Salt Lake City, Utah. Negotiations are progressing satisfactorily at the VA site, which was listed by the EPA on the National Priority List in 2013, and an agreement is expected this calendar year. The EPA, in FY 2014, negotiated enforceable agreements to address contamination at several other cleanup locations, including at Camp Minden, Louisiana, and the

⁴ For additional information on the Tyndall Air Force Base Interagency Agreement visit <http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/60c5c8d26682ee5e85257bec00614583!OpenDocument>.

National Aeronautics and Space Administration's Ames Research Center in Palo Alto, California. The Camp Minden site contains over 15 million pounds of unsecured and improperly stored M6 propellant among other explosive materials. People from the town of Doyline, Louisiana (i.e., approximately 400 homes) were voluntarily evacuated due to the potential hazard from the M6 propellant and its proximity to the human population residing in Doyline, Louisiana.

Priority areas for FY 2016 include ensuring that: 1) all federal facility sites on the NPL have IAs, which provide enforceable schedules for the progression of the entire cleanup; 2) these IAs are monitored for compliance; and 3) any federal cleanup sites on the NPL that are transferred to new owners are transferred in an environmentally responsible manner.

The EPA monitors progress (milestones) in existing IAs,⁵ resolves disputes, takes appropriate enforcement actions to address noncompliance, and oversees remedial work being conducted at federal facilities. The EPA works to ensure that legally enforceable institutional controls (protective procedures and policies that reduce risk associated with contamination left in place) and five-year review requirements are in place at Superfund sites to ensure the long-term protectiveness of cleanup actions. In FY 2016, the EPA also will continue its work with affected agencies to resolve outstanding compliance and enforcement policy issues relating to the cleanup of federal facilities. The EPA evaluates and utilizes all available enforcement authorities in its toolbox to ensure that the appropriate mechanism is used and that federal entities undertake necessary cleanup work at their contaminated sites.

The Superfund Federal Facilities Enforcement program collaborates closely with the EPA's Superfund Federal Facilities program to support their strategic programmatic goals to clean up federal contaminated sites and make them safer for communities and, whenever possible, available for other economically productive uses. In addition, it is critically important, especially in light of scarce resources, that the EPA continually assesses priorities, leverages resources, and embraces new approaches, such as work sharing across traditional EPA organizational and Regional Offices that can help achieve enforcement goals more efficiently and effectively. The Superfund Federal Facilities Enforcement program will continue to focus its resources on the highest priority sites and in those areas where the largest potential return is realized on enforcement dollars.

Performance Targets:

Work under this program also supports performance results in the Superfund Enforcement program and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section.

⁵For a list of Superfund Interagency Agreements from 2005 to 2010 visit <http://www.epa.gov/Compliance/federalfacilities/enforcement/cleanup/index.html>.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$328.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$191.0 / -0.8 FTE) This program change reflects a decrease in resources that support federal compliance assistance and cleanup oversight activities at federal facilities. The reduction may affect oversight of some NPL sites with agreements in place.

Statutory Authority:

Comprehensive Environmental Response, Compensation, and Liability Act as amended; Resource Conservation and Recovery Act, and Safe Drinking Water Act.

Criminal Enforcement

Program Area: Enforcement

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$48,136.0	\$46,745.0	\$51,917.0	\$5,172.0
<i>Hazardous Substance Superfund</i>	<i>\$7,430.4</i>	<i>\$7,243.0</i>	<i>\$7,643.0</i>	<i>\$400.0</i>
Total Budget Authority / Obligations	\$55,566.4	\$53,988.0	\$59,560.0	\$5,572.0
Total Workyears	267.2	268.9	266.9	-2.0

Program Project Description:

The EPA's Criminal Enforcement program investigates and helps prosecute violations of Superfund and Superfund-related laws through targeted investigation of criminal conduct, committed by individual and corporate defendants, that threatens public health and the environment. A strong enforcement program is a key component of an effective, results-focused environmental compliance strategy. Successful, visible prosecutions deter other potential violators, eliminate the incentive for companies to "pay to pollute," and help ensure that businesses that follow the rules, do not face unfair competition from businesses that break the rules. Criminal enforcement also sends a strong deterrence message in economically disadvantaged communities and traditionally industrial areas, where residents may have suffered disproportionate pollution impacts, in part due to criminal activities.

The EPA's criminal enforcement agents (Special Agents) investigate violations of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and associated violations of Title 18 of the United States Code such as fraud, conspiracy, false statements, and obstruction of justice. Special Agents provide prosecutorial support, evaluate leads, interview witnesses, serve and support search warrants, and review documentary evidence, including data from prior inspections and enforcement actions. They are assisted by forensic scientists, attorneys, technicians, engineers, and other experts. Special Agents also assist in plea negotiations, and in planning sentencing conditions that require remediation, environmental management systems, or other projects that improve environmental conditions.

The EPA's Special Agents also participate in state and local task forces, and attend specialized training courses at the Federal Law Enforcement Training Center along with other federal, state, and local law enforcement officials. This training further develops the environmental expertise of our state, local, and Tribal partners, enabling them to better protect their communities and offer valuable leads to the EPA's investigators.⁶

⁶ For more information visit: <http://www2.epa.gov/enforcement/criminal-enforcement>.

The EPA's criminal enforcement attorneys provide Superfund legal and policy support for all of the program's responsibilities, including forensics and expert witness preparation, information law, and personnel law to ensure that program activities are carried out in accordance with legal requirements and the policies of the agency. These efforts support environmental crimes prosecutions primarily by the United States Attorneys and the Department of Justice's Environmental Crimes Section, and occasionally by state, Tribal, and local prosecutors. In FY 2014, the conviction rate for criminal defendants was 95 percent.⁷

FY 2016 Activities and Performance Plan:

Successful prosecutions are the result of careful collection and expert analysis of evidence. In FY 2016, the Criminal Enforcement program will continue to realize the benefits of enhanced crime scene investigation support, forensic evidence collection, and improved sampling support for complex criminal enforcement efforts involving highly contaminated crime scenes and major releases to the environment. High-quality forensic data collection and analysis are also key to establishing the personal culpability of individual violators, which can lead to sentences that include incarceration.

The EPA's Criminal Enforcement program is committed to fair and consistent enforcement of federal laws and regulations and has the flexibility to respond to region-specific environmental problems. In FY 2016, criminal enforcement will continue to oversee all investigations to ensure compliance with program priorities, and conduct regular "docket reviews" (detailed reviews of all open investigations in each Regional Office) to ensure consistency with investigatory discretion guidance and enforcement priorities.

In FY 2016, the Criminal Enforcement program will continue to investigate and assist with prosecuting CERCLA related cases with significant environmental, human health, and deterrence impacts. The Criminal Enforcement program continues to "tier" significant CERCLA cases based upon categories of human health and environmental impacts (e.g., death, serious injury, human exposure, required remediation), release and discharge characteristics (e.g., hazardous or toxic pollutants, continuing violations), and subject characteristics (e.g., national corporation, recidivist violators).

In FY 2016, the program also will pursue leads reported by the public as appropriate through the tips and complaints link on the EPA's website, and will continue to use the fugitive website.⁸ The EPA's fugitive website enlists the public and law enforcement agencies help in apprehending defendants who have fled the country, are in hiding to avoid prosecution for alleged environmental crimes, or are in hiding to avoid sentencing for crimes for which they have been found guilty.

It is critically important, especially in light of scarce resources, that we continually assess our priorities and embrace new approaches that can help achieve our goals more efficiently and effectively. In FY 2016, the program will continue to focus all of its criminal investigative

⁷ For more information on FY 2014 enforcement results, visit: <http://www2.epa.gov/enforcement/enforcement-annual-results-analysis-and-trends-fiscal-year-fy-2014>.

⁸For more information visit: <http://www.epa.gov/fugitives/>.

resources on the highest priority cases and have requested a slight increase in resources to maintain existing personnel and expertise.

Performance Targets:

Work under this program also supports performance results in the Criminal Enforcement program under Environmental Programs and Management appropriation and can be found in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$152.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$248.0 / -0.2 FTE) This program change reflects a net increase to more effectively support the agency's criminal investigators in their investigation of environmental crimes via targeted, analytically-driven enforcement activities. It also represents an increase in essential resources to support the electronic analytical platform needed to conduct comparative analysis of information from a variety of sources.

Statutory Authority:

Comprehensive Environmental Response, Compensation, and Liability Act; Emergency Planning and Community Right-To-Know Act; Pollution Prosecution Act; Title 18 General Federal Crimes (e.g., false statements, conspiracy); Power of Environmental Protection Agency (18 U.S.C. 3063).

Forensics Support

Program Area: Enforcement

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Science & Technology	\$14,088.7	\$13,669.0	\$14,398.0	\$729.0
<i>Hazardous Substance Superfund</i>	\$2,291.2	\$1,083.0	\$1,124.0	\$41.0
Total Budget Authority / Obligations	\$16,379.9	\$14,752.0	\$15,522.0	\$770.0
Total Workyears	86.6	80.3	80.3	0.0

Program Project Description:

The Forensics Support program provides expert scientific and technical support for the nation's most complex Superfund civil and criminal enforcement cases, as well as technical expertise for agency compliance efforts. The NEIC is an environmental forensic center accredited for both laboratory and field sampling operations that generate environmental data for law enforcement purposes. It is fully accredited under International Standards Organization 17025, the main standard used by testing and calibration laboratories, as recommended by the National Academy of Sciences.⁹ The work of the EPA's National Enforcement Investigations Center (NEIC) is critical to determining non-compliance and building viable enforcement cases. The NEIC maintains a sophisticated chemistry laboratory and a corps of highly trained inspectors and scientists with expertise across media. The NEIC works closely with the EPA's Criminal Investigation Division to provide technical support (e.g., sampling, analysis, consultation and testimony) to criminal investigations. The NEIC also works closely with the EPA's Headquarters and Regional Offices to provide technical assistance, consultation, on-site inspection, investigation, and case resolution services in support of the agency's Civil Enforcement program.

FY 2016 Activities and Performance Plan:

In FY 2016, the NEIC will continue to support the agency's national enforcement priorities and support the technical aspects of criminal investigations. In order to stay at the forefront of environmental enforcement, the NEIC will continue to apply advanced analytical strategies to identify sources of pollution and potentially responsible parties at Superfund and other waste sites. In response to Superfund case needs, the NEIC will conduct applied research and development to identify and deploy new capabilities, and to test and/or enhance existing methods and techniques involving environmental measurement as part of forensic investigations. The agency requests a slight increase in resources from the FY 2016 President's Budget request to allow the NEIC to continue its high quality forensics support work by supporting existing personnel, and for providing necessary maintenance and repair for the NEIC laboratory.

⁹ Strengthening Forensic Science in the United States: A Path Forward, National Academy of Sciences, 2009, available at http://www.nap.edu/catalog.php?record_id=12589.

The NEIC also will continue to develop innovative monitoring techniques. One focus will be on the use of our Geospatial Measurement of Air Pollution vehicle to measure the release of CERCLA Reportable Quantities of pollutants in environmental justice communities. In FY 2016, the NEIC will continue to function under the rigorous ISO 17025 requirements for environmental data measurements to maintain its laboratory and field accreditation. This includes rigorous auditing and the application of “lean” principles to refine and improve operations. As part of the agencywide effort to review overall space requirements, the NEIC also will continue to participate in the agency’s efforts to advance the implementation of the consolidation of its laboratories to improve space and resource efficiency.

Performance Targets:

Work under this program supports multiple Strategic Goals and Objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$25.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$16.0) This program change reflects an increase to the National Enforcement Investigations Center’s (NEIC) forensics laboratory.

Statutory Authority:

Comprehensive Environmental Response, Compensation, and Liability Act; Emergency Planning and Community Right-to-Know Act.

Program Area: Homeland Security

Homeland Security: Preparedness, Response, and Recovery

Program Area: Homeland Security

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Restore Land

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Science & Technology	\$27,840.5	\$26,256.0	\$25,674.0	(\$582.0)
<i>Hazardous Substance Superfund</i>	<i>\$35,513.6</i>	<i>\$35,265.0</i>	<i>\$32,654.0</i>	<i>(\$2,611.0)</i>
Total Budget Authority / Obligations	\$63,354.1	\$61,521.0	\$58,328.0	(\$3,193.0)
Total Workyears	139.0	131.2	124.4	-6.8

Program Project Description:

The EPA's Homeland Security Preparedness, Response, and Recovery program develops and maintains an agencywide capability to respond to large-scale catastrophic incidents with an emphasis on those involving chemical, biological, radiological, and nuclear (CBRN) agents. The program builds upon the EPA's long standing Superfund Emergency Response and Removal program, which is responsible for responding to and cleaning up oil and hazardous substance releases. The EPA's homeland security effort develops these responsibilities through research and maintaining a level of expertise, training, and preparedness specifically focused on threats associated with CBRN agents. The EPA's capabilities and supporting research, implemented as a comprehensive all-hazards approach to emergency response, is a cornerstone of national preparedness and is an essential element of national resiliency. As a major part of a national infrastructure designed to respond to and protect human health and the environment, this program's valuable expertise assists in the response, preparedness, and prevention activities associated with the safety and security of potential releases of chemical, oil and hazardous substances, discharges to our inland waterways, or any other type of all hazards. The program assists with multi-media training and exercise development/implementation for responders, which establish and sustain coordination with states, local communities, tribes, and other federal officials. In addition, the program may provide technical assistance support, resources and outreach to industry, states, and local communities as part of the agency's effort to ensure national safety and security for chemical and oil incidents.

The agency Homeland Security program implements a broad range of activities for a variety of internal and multi-agency efforts that are consistent with the Department of Homeland Security's (DHS') National Response Framework. As mandated in Homeland Security Presidential Directives (HSPDs) #5, #8, #9, #10, and #22,¹⁰ the agency leads or supports many aspects of

¹⁰ HSPD-5: Management of Domestic Incidents; HSPD-8: National Preparedness; HSPD-9: Defense of U.S. Agriculture and Food; HSPD-10: Biodefense for the 21st Century; and HSPD-22: Domestic Chemical Defense.

preparing for and responding to a nationally significant incident which may contain CBRN agents. Other federal agencies, including DHS, the Department of Defense, and the Department of Health and Human Services, rely upon the EPA's unique and critical environmental response capability and expertise for CBRN agents, and look to the EPA to:

- Sustain and operate national environmental laboratory capability and capacity for chemical warfare agents and biological threats;
- Provide expertise on environmental characterization, decontamination, and waste disposal methods following the release of a CBRN agent;
- Provide technical support and expertise during a response in evaluating environmental and human health risks including health risks associated with the release of CBRN agents; and
- Maintain the agency's own internal response capabilities, as well as coordinated federal, state, and local emergency response efforts through training, exercises, and the maintenance of specialized field assets.

The EPA's homeland security assets, trained personnel, laboratory capabilities, and decontamination technical expertise, provide a safety net for CBRN responses, as the EPA is responsible for providing assistance in support of first responders' environmental monitoring and decontamination during a CBRN response. The agency's Consequence Management Advisory Division (CMAD) serves as a federal technical resource for environmental consequence management activities including decontamination of building infrastructures and environmental media, site characterization, clearance, and waste management. The Environmental Response Team (ERT) will provide required health and safety and response readiness training to federal, state, local, and Tribal responders. The Environmental Response Laboratory Network (ERLN) resources focus on improving national environmental laboratory capabilities and capacities to be better prepared to analyze the high volume of environmental CBRN samples expected during national emergencies. This program helps the EPA have the capacity for understanding and responding to complex CBRN incidents in a reasonable time frame as well as have a basic level of institutional expertise for advising removal actions. To meet this challenge, the EPA will continue to use a comprehensive approach which includes internal and external partnerships on research priorities and bring together agency assets to implement efficient and effective responses.

In support of this work, the Homeland Security Research Program (HSRP) develops and evaluates environmental sampling, analysis, and human health risk assessment methods. These methods address known and emerging biological, chemical, and radiological threat agents. HSRP also develops and assesses decontamination and waste management technologies and methods.

FY 2016 Activities and Performance Plan:

In FY 2016, the agency's Homeland Security Preparedness, Response, and Recovery program will continue to concentrate on four core areas:

- 1) Maintaining a highly skilled, well-trained, and well-equipped response workforce that has the capacity to respond to simultaneous incidents as well as threats involving CBRN substances;
- 2) Developing more effective site characterization, decontamination, waste management, and clearance strategies for site reoccupation, to ensure that the nation can quickly recover from nationally significant incidents;
- 3) Ensuring maintenance of capability and capacity to analyze Chemical Warfare Agent (CWA) samples while working to build and maintain the EPA's biological agent laboratory analyses capability and capacity; and
- 4) Implementing the EPA's National Approach to Response (NAR) to effectively manage the EPA's emergency response assets during large-scale activations.

The EPA's activities in support of these efforts include the following:

- Maintain the skills of the EPA's On-Scene Coordinators (OSCs) through specialized training, exercises, and equipment. This professional development provides staff with information on new technologies and supports direction to optimize an efficient and cost-effective response process. In FY 2016, the EPA and its federal, state, and Tribal homeland response partners will participate in exercises and trainings designed to test and improve the EPA's response capabilities.
- Sustain the agency's responder base during large-scale catastrophic incidents by training volunteers of the Response Support Corps (RSC) and members of Incident Management Teams (IMTs). These RSC volunteers provide critical support to headquarters and regional Emergency Operations Centers and also assist with operations in the field. To ensure technical proficiency, this cadre of response personnel requires initial training and routine refresher training. In addition, IMTs receive training throughout the regions.
- Operate the ERLN, sustain and operate CWA and biological labs, continue mobile capability through Portable High-Throughput Integrated Laboratory Identification Systems (PHILIS) units. The agency will continue to participate with the DHS led Integrated Consortium of Laboratory Networks (ICLN) to leverage federal, state, and commercial capabilities. The DHS led ICLN has been in existence since 2005 and continues to coordinate homeland security response issues through the Joint Leadership Council, of which the EPA's Homeland Security program is a member, and through the National Coordinating Group (NCG), of which the ERLN is a participating member.
- EPA is responsible for the decontamination phase of a significant incident. Decontamination is not possible without sampling and lab analyses to delineate and characterize the site, to confirm successful decontamination, and for decisions on clearance to re-enter the site. To assist with site characterization, EPA fixed and mobile lab capabilities are needed; mobile labs, such as PHILIS, for deploying to sites for high volume, quick turnaround analyses; and fixed labs for providing added chemical and biological agent capacity and capability for non-routine analyses.

- Implement the NAR to maximize regional interoperability and to ensure that the EPA's OSCs and special teams will be able to respond to terrorist threats and large-scale catastrophic incidents in an effective and nationally consistent manner.
- Continue to maintain one Airborne Spectral Photometric Environmental Collection Technology (ASPECT) aircraft. ASPECT provides direct assistance to first responders by detecting chemical and radiological vapors, plumes, and clouds with real-time data delivery. ASPECT is especially needed when other assets cannot be deployed to a release (road and/or infrastructure damage, personnel concerns, etc.).
- Maintain ERT and CMAD personnel and equipment in a state of readiness for response to potential homeland security incidents. As the agency inland scientific support coordinator, the ERT also will maintain capacity to provide required health and safety and response readiness training to federal, state, local, and tribal responders. As the agency lead for CBRN preparedness, CMAD will continue to develop and maintain training, plans, and assets for national response to a significant incident.
- Continue to focus on assessing the persistence and transport of harmful materials and the effectiveness of decontamination options for sites contaminated with biological agents.
- Continue development of sample collection protocols for inclusion in the Selected Analytical Methods for Environmental Remediation and Recovery (SAM) sample collection compendium document. The SAM methods are a repository for pre-selected methods to use in a response and all ERLN labs are directed to use these methods.
- Continue development and assessment of methods for treating water generated during remediation activities. These methods are expected to reduce both the timeline and cost of the response by reducing the volume of waste that requires final disposal.

Performance Targets:

Work under this program also supports performance results in the Science & Technology Homeland Security: Preparedness, Response, and Recovery program, which also can be found in the Eight-Year Performance Array.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$306.0) This change reflects an increase of \$745.0 to fixed and other costs for the agency recalculation of base workforce costs due to adjustments in salary, working capital fund, and benefits, and a decrease of \$439.0 for essential research program support costs.
- (-\$2,560.0 / -2.2 FTE) This program change reduces resources for agency response assets specifically Portable High-Throughput Integrated Laboratory (PHILIS), Airborne Spectral Photometric Environmental Collection Technology (ASPECT) aircraft, and field

equipment located in regional emergency operations centers. EPA's national leadership responsibilities and assets will continue to be available when needed.

- (-\$357.0) This reduces research resources for particle-based fate and transport modeling and sampling procedures for chemical contamination on surfaces.

Statutory Authority:

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA), 42 U.S.C. 9601 et seq. – Sections 104, 105, 106; Clean Water Act 33 U.S.C. 1251 et seq.; Oil Pollution Act, 33 U.S.C. 2701, et seq.

Homeland Security: Protection of EPA Personnel and Infrastructure

Program Area: Homeland Security

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$4,805.0	\$5,460.0	\$5,118.0	(\$342.0)
Science & Technology	\$545.0	\$542.0	\$605.0	\$63.0
Building and Facilities	\$4,158.7	\$6,676.0	\$7,875.0	\$1,199.0
<i>Hazardous Substance Superfund</i>	<i>\$1,057.1</i>	<i>\$1,097.0</i>	<i>\$1,113.0</i>	<i>\$16.0</i>
Total Budget Authority / Obligations	\$10,565.8	\$13,775.0	\$14,711.0	\$936.0
Total Workyears	2.7	4.9	8.9	4.0

Program Project Description:

This program ensures that the EPA's physical structures and assets are secure and operational and that certain physical security measures are in place to help safeguard staff in the event of an emergency. The program also includes the personnel security clearance process, the protection of any classified information, and the provision of necessary secure communications.

The EPA's policy is to have a comprehensive continuity of operations (COOP) program in place to ensure continuity of its mission essential functions (MEFs) under all emergency circumstances. Under Homeland Security Presidential Directive 20 (HSPD-20), the EPA is required to designate an agency Continuity Coordinator charged with ensuring that the EPA's continuity program is consistent with federal policies. The Solid Waste and Emergency Response Program's Emergency Management program is responsible for developing EPA's COOP Plan.

FY 2016 Activities and Performance Plan:

In FY 2016, the agency will continue to follow the requirements outlined in the Department of Homeland Security/Federal Emergency Management Agency's (FEMA) Federal Continuity Directive (FCD)-1. FCD-1 requires the EPA to develop a continuity plan that ensures its ability to accomplish its MEFs from an alternative site, with limited staffing and without access to resources available during normal activities.

Consistent with a review of its needs and priorities pursuant to the directive, EPA will undertake a number of activities, including, but not limited to the following:

- Conduct annual reviews of the headquarters and regional COOP plans and update the plans, as needed, to reflect current operations;
- Conduct an annual review of EPA's Primary MEF and supporting MEFs to ensure that they reflect current agency activities;
- Provide annual training to EPA staff on general COOP awareness and procedures;
- Conduct exercises of COOP deployment, devolution, activation of Emergency Relocation Group personnel to the COOP site, and implementation of its MEFs from its alternate site(s), including interagency operations. In FY 2016, EPA plans to support training activities and participate in a major interagency COOP exercise and an EPA internal COOP exercise with headquarters and regional offices; and
- Show progress toward meeting the requirements of National Communications System Directive (NCSD) 3-10 through the purchase, installation, and maintenance of secure communications equipment.

Currently, the EPA's COOP program is reviewed internally every month, according to criteria established in FEMA's Continuity Evaluation Tool and Readiness Reporting System. The COOP program is evaluated in over 200 elements in 13 categories, including Program Plans and Procedures, Risk Management, Budgeting, Essential Functions, and others. The results of the internal review are delivered to FEMA, who, in turn, delivers the review results to the White House. Every other year, FEMA performs an in-person review of the EPA's COOP program and provides the results to the Administrator and to the White House. The EPA's program was reviewed in March 2014 and received an excellent review.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$16.0) This program change increases funding for implementing changes recommended from the COOP program internal reviews that occur each month.

Statutory Authority:

Public Health Service Act Amendments, 42 U.S.C. 201 et seq. - Section 2801; Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9601 et seq. -Sections 104, 105, and 106.

Program Area: Information Exchange / Outreach

Exchange Network

Program Area: Information Exchange / Outreach

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$19,602.1	\$16,995.0	\$25,361.0	\$8,366.0
<i>Hazardous Substance Superfund</i>	<i>\$1,383.0</i>	<i>\$1,328.0</i>	<i>\$1,366.0</i>	<i>\$38.0</i>
Total Budget Authority / Obligations	\$20,985.1	\$18,323.0	\$26,727.0	\$8,404.0
Total Workyears	34.7	31.2	30.2	-1.0

Program Project Description:

The EPA's Environmental Information Exchange Network (EN) is a standards-based, secure approach for the EPA and its state, Tribal and territorial partners to exchange and share environmental data over the Internet. As it employs new technology and data standards, open-source software, shared and portal services and reusable tools and applications, the EN offers its partners tremendous potential for managing and analyzing environmental data more effectively and efficiently, leading to improved decision making.

The Central Data Exchange (CDX)¹¹ is the largest component of the EN program and serves as the point of entry on the Exchange Network for environmental data submissions to the agency. CDX provides a set of core services that promote a leaner and more cost-effective enterprise architecture for the agency by avoiding the creation of duplicative services. It also provides a set of value-added features and services that enable faster and more efficient transactions for internal and external clients of the EPA. Through CDX, a stakeholder can submit data through one centralized point of access, exchange data with target systems using Web services and utilize publishing services to share information collected by the EPA and other stakeholders (including states and tribes).

FY 2016 Activities and Performance Plan:

In FY 2016, the Exchange Network program will continue to pilot projects that transform the EN from a closed partnership of states and tribes to a more open platform of services that the public or third parties can use to develop tools and applications to make environmental data reporting, sharing and analysis faster, simpler and less expensive. In addition, the EN program will work across EPA offices to integrate additional reporting systems into CDX, such as Clean Air Act

¹¹ For more information on the Central Data Exchange, please visit: <http://www.epa.gov/cdx/>.

State Implementation Plan reporting and updates, the high volume-reporting National Pollutant Discharge Elimination System program and reporting for the Toxic Substances Control Act.

These activities are intended to assist states and tribes in the development activities associated with establishing a point of presence and exchanging data on the Network and supporting local electronic reporting programs in a more cost effective way.

Performance Targets:

Work under this program supports the performance results in the Exchange Network Program Project under the EPM appropriation and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$10.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$100.0) This change reflects a realignment of resources to direct support for the Freedom of Information Act (FOIA) program from the Superfund Exchange Network program project to the Superfund Information Technology/Data Management program project. FOIA is part of the content management strategy supported in IT/DM which includes records, eDiscovery and privacy.
- (+\$128.0) This program change reflects an increase in contractual support costs for the central data exchange.

Statutory Authority:

Federal Advisory Committee Act (FACA), 42 United States Code 553 et seq. and Government Information Security Act (GISRA), 40 U.S.C. 1401 et seq. – Sections 3531, 3532, 3533, 3534, 3535 and 3536 and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. 9606 et seq. – Sections 101-128, 301-312 and 401-405 and Clean Air Act (CAA) Amendments, 42 U.S.C. 7401 et seq. – Sections 102, 103, 104 and 108 and Clean Water Act (CWA), 33 U.S.C. 1314 et seq. – Sections 101, 102, 103, 104, 105, 107, and 109 and Toxic Substances Control Act (TSCA), 15 U.S.C. 2611 et seq. – Sections 201, 301 and 401 and Federal Insecticide Fungicide and Rodenticide Act (FIFRA), 7 U.S.C. 36 et seq. – Sections 136a – 136y and Food Quality Protection Act (FQPA), 7 U.S.C. 136 et seq. – Sections 102, 210, 301 and 501 and Safe Drinking Water Act (SDWA) Amendments, 42 U.S.C. 300 et seq. – Sections 1400, 1401, 1411, 1421, 1431, 1441, 1454 and 1461 and Federal Food, Drug and Cosmetic Act (FFDCA), 21 U.S.C. 346 et seq. and Emergency Planning and Community Right-to-Know Act (EPCRA), 42 U.S.C. 11001 et seq. – Sections 322, 324, 325 and 328 and Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6962 et seq. – Sections 1001, 2001, 3001 and 3005 and Government Performance and Results Act (GPRA), 39 U.S.C. 2803 et seq. – Sections 1115, 1116, 1117, 1118 and 1119 and Government Management Reform Act (GMRA), 31 U.S.C. 501 et seq. – Sections 101, 201, 301, 401, 402, 403, 404 and 405 and Clinger-Cohen Act (CCA), 40

U.S.C. 1401 et seq. – Sections 5001, 5201, 5301, 5401, 5502, 5601 and 5701 and Paperwork Reduction Act (PRA), 44 U.S.C. 3501 et seq. – Sections 104, 105, 106, 107, 108, 109, 110, 111, 112 and 113 and Freedom of Information Act (FOIA), 5 U.S.C. 552 et seq and Controlled Substances Act (CSA), 21 U.S.C. 802 et seq. – Sections 801, 811, 821, 841, 871, 955 and 961; Privacy Act; Electronic Freedom of Information Act, Security and Accountability for Every (SAFE) Port Act, Executive Order 13439. Exchange Network Program funding has been provided by the annual appropriations for the EPA: FY 2002 (Public Law 107-73), FY 2003 (Public Law 108-7), FY 2004 (Public Law 108-199) FY 2005 (Public Law 108-447) and FY 2006 (Public Law 109-54), FY 2007 (Public Law 110-5), FY 2008 (Public Law 110-161), and FY 2009 (Public Law 111-8).

Program Area: IT / Data Management / Security

Information Security

Program Area: IT / Data Management / Security

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$5,861.0	\$6,309.0	\$6,666.0	\$357.0
<i>Hazardous Substance Superfund</i>	<i>\$705.1</i>	<i>\$683.0</i>	<i>\$704.0</i>	<i>\$21.0</i>
Total Budget Authority / Obligations	\$6,566.1	\$6,992.0	\$7,370.0	\$378.0
Total Workyears	9.7	14.3	14.3	0.0

Program Project Description:

Information is a valuable national resource and a strategic asset to the EPA. It enables each program office to fulfill its mission to protect human health and the environment. The agency's Information Security program funded from Superfund appropriation is designed to protect the confidentiality, availability and integrity of the EPA's information assets. The information protection strategy for the Superfund program includes, but is not limited to: policy, procedure and practice management; information security awareness, training and education; risk-based governance and oversight; weakness remediation; operational security management; incident response and handling; and Federal Information Security Management Act (FISMA) compliance and reporting.

FY 2016 Activities and Performance Plan:

Effective information security requires vigilance and the ability to adapt to new challenges every day. The EPA will continue to protect, defend and sustain its information assets through continued improvements to policy and procedures; oversight and compliance; training and awareness; mission assurance; and incident response.

This program leads the agency in redesigning IT Security business processes to improve efficiency and effectiveness. In FY 2016, the EPA will build on progress made in advancing the information security program by:

- Increasing the use of continuous monitoring tools and processes;
- Focusing on protecting information;
- Measuring performance;
- Advancing risk management processes;
- Continuing to update and implement the information security architecture; and
- Refining incident management capabilities.

The Information Security program also will continue to build on progress made from continuous monitoring to detect and remediate Advanced Persistent Threats to the agency's Information Technology (IT) networks. Furthermore, the agency will continue to focus on training and user-awareness to foster desired behavior, asset definition and management, compliance, incident management, knowledge and information management, risk management and technology management. These efforts will strengthen the agency's ability to adequately protect information assets. The final result is an information security program that can rely on effective and efficient controls and processes to counter cybersecurity threats.

In FY 2016, the agency will continue Phase II of the implementation of the Homeland Security Presidential Directive 12 (HSPD-12) requirements for logical and physical access as identified in the Federal Information Processing Standards (FIPS) 201, *Personal Identity Verification (PIV) of Federal Employees and Contractors*¹². This effort ensures only authorized employees have access to federal and federal-controlled facilities and information systems by requiring a higher level of identity assurance. Phase II will incorporate: physical access control management and interoperability with other federal agencies and partners.

The agency's efforts to implement the cross-agency priority goal on cybersecurity will focus on achieving 95 percent automated capability to provide enterprise-level visibility into asset inventory for all hardware assets; 95 percent automated capability to identify deviations from the approved configuration baselines and to provide visibility at the organization's enterprise level; and 95 percent hardware assets evaluated using an automated capability that scans for vulnerabilities on computing devices using the Common Vulnerabilities and Exposures (CVEs) in the National Institute of Standards and Technology's vulnerability database. Aggregated data will be visible at the organization's enterprise level.

The EPA will continue to enhance the internal Computer Security Incident Response Capability (CSIRC) to ensure rapid identification, response, alerting and reporting of suspicious activity. CSIRC's mission is to protect the EPA's information assets and respond to security incidents – actual and potential. This includes the ability to detect unauthorized attempts to access, destroy, or alter the EPA's data and information resources. CSIRC will continue to establish new, and build existing, relationships with other federal agencies and law enforcement entities to support the agency's mission. The incident response capability includes components such as tool integration, detection and analysis; forensics; and containment and eradication activities. To help ensure tools, techniques, and practices are current, CSIRC monitors new trends in information security and threat activity.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no specific performance measures for this program.

¹² <http://www.nist.gov/itl/csd/ssa/piv.cfm>.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$21.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.

Statutory Authority:

Federal Information Security Management Act (FISMA), 44 United States Code 3541 et seq. – Sections 301, 302, 303, 304, 305, 401 and 402 and Government Performance and Results Act (GPRA), 39 U.S.C. 2803 et seq. – Sections 1115, 1116, 1117, 1118 and 1119 and Government Management Reform Act (GMRA), 31 U.S.C. 501 et seq. – Sections 101, 201, 301, 401, 402, 403, 404 and 405 and Clinger-Cohen Act (CCA), 40 U.S.C. 1401 et seq. – Sections 5001, 5201, 5301, 5401, 5502, 5601 and 5701 and Paperwork Reduction Act (PRA), 44 U.S.C. 3501 et seq. – Sections 104, 105, 106, 107, 108, 109, 110, 111, 112 and 113 and Freedom of Information Act (FOIA), 5 U.S.C. 552 et seq. and Electronic Freedom of Information Act (EFOIA), 5 U.S.C. 552 et seq. – Sections 552(a)(2), 552 (a)(3), 552 (a)(4) and 552(a)(6).

IT / Data Management

Program Area: IT / Data Management / Security

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$90,118.6	\$84,227.0	\$96,395.0	\$12,168.0
Science & Technology	\$3,860.8	\$3,089.0	\$3,196.0	\$107.0
<i>Hazardous Substance Superfund</i>	<i>\$15,129.1</i>	<i>\$13,802.0</i>	<i>\$14,938.0</i>	<i>\$1,136.0</i>
Total Budget Authority / Obligations	\$109,108.5	\$101,118.0	\$114,529.0	\$13,411.0
Total Workyears	453.6	469.8	478.8	9.0

Program Project Description:

The work performed under the EPA's Superfund appropriated Information Technology/Data Management (IT/DM) program supports agency priorities by providing critical IT infrastructure and data management needed for: 1) access to scientific, regulatory, policy and guidance information needed by agency staff, the regulated community and the public; 2) analytical support for interpreting and understanding environmental information; 3) exchange and storage of data, analysis and computation; and 4) rapid, secure and efficient communication. These are organized by the following functional areas: information analysis and access; data management and collection; information technology and infrastructure; and geospatial information and analysis.

IT/DM program activities support the Administration's goals of transparency, participation, engagement and collaboration to expand the conversation on environmentalism and support Executive Order No. 13642 - Making Open and Machine Readable the Default for Government Information. IT/DM also supports the maintenance of the EPA's IT services that enable citizens, regulated facilities, states and other entities to interact with the EPA electronically to get the information they need on demand, to understand what it means, and to submit and share environmental data with the least cost and burden. The program also provides support to other agency IT development projects and essential technology to agency staff, enabling them to conduct their work in support of Superfund programs effectively and efficiently.

FY 2016 Activities and Performance Plan:

The EPA's IT/DM functions have progressively integrated new and transformative approaches to the way IT is managed across the agency. The EPA's IT/DM services enhance the power of information by delivering on demand data to the right people at the right time. FY 2016 activities

will include a significant focus on the agency's work to transform its digital services as part of the EPA's efforts in becoming a High Performing Organization.

In FY 2016, the following IT/DM activities will continue to be provided for the Superfund program:

- **Data Management and Collection:** In FY 2016, the agency will continue to identify and establish processes to capture electronic versions of records and eliminate, wherever possible, receiving or printing paper copies. These efforts will increase accountability, improve accuracy and offer cost savings associated with information requests. Data Management and Collection efforts include support for the agency's Freedom of Information Act (FOIA) program. The program also supports the privacy of the agency's environmental data and personally identifiable information (PII). In FY 2016, the agency will continue to assess how to support the expanding responsibilities associated with controlled unclassified information (CUI). The agency will continue to develop a strategy to deliver improved information services to agency staff. This includes governance (policy, procedures and standards), outreach and training, and a multi-project effort to improve records and eDiscovery. In addition, the EPA continues to operate a shared service docket processing center providing support to the agency's rulemakings and administer the Paperwork Reduction Act to minimize information collection burden on the public. (In FY 2016, the Data Management and Collection activities will be funded, under the Superfund appropriation, at \$969 thousand in non-payroll funding.)
- **Geospatial:** Geospatial information and analysis play a critical role in the agency's ability to respond rapidly and effectively in times of emergency, in addition to meeting everyday program and region-specific business needs. Throughout FY 2016, the agency will continue to enhance the capabilities of the EPA GeoPlatform, its shared technology enterprise for geospatial information and analysis. By implementing geospatial data, applications and services through a holistic enterprise solution, the agency saves time and money, assures compatibility and reduces the need for multiple subscriptions to software, data and analytical services. Also in FY 2016, the EPA will continue to use the Geoplatform to publish internal and public mapping tools, thereby increasing by at least 30 percent the number of shareable maps, geodata services, and applications available for use. The EPA will continue to play a leadership role in both the Federal Geographic Data Committee and the National Geospatial Platform, working with partner agencies to share geospatial technology capabilities across government. (In FY 2016, the Geospatial activities will be funded, under the Superfund appropriation, at \$160 thousand in fixed costs and \$593 thousand in non-payroll funding.)
- **Information Access and Analysis:** In FY 2016, the program will continue to provide access to and analysis of environmental information to the public and EPA personnel through My Environment, Envirofacts, OneEPA Web, Libraries and the EPA Intranet. Through support of My Environment and Envirofacts, the EPA will continue to offer online tools and applications that enable the public to understand and utilize environmental information about their community and respond to emergencies. The program also will continue to improve the delivery of vital information to the public and

ensure people are able to find the right information to accomplish their tasks online through OneEPA Web services and the EPA National Library Network. The EPA will provide an infrastructure and suite of tools to harness “Big Data” to explore and address environmental, business and public policy challenges. In FY 2016, the agency will design, identify, develop and deploy data analytics pilots and partner with other Agencies, states, tribes and academic institutions to propose innovative ways to use, analyze and visualize data. (In FY 2016, the Information Access and Analysis activities will be funded, under the Superfund appropriation, at \$480 thousand in fixed costs and \$352 thousand in non-payroll funding.)

- **Information Technology and Infrastructure:** In FY 2016, the agency will continue to support information technology and infrastructure. The EPA will continue maintaining and provisioning desktop computing equipment, network connectivity, e-mail and collaboration tools, application hosting, remote access, telephone services and maintenance, Web and network services, and IT-related maintenance. Moreover, the EPA will continue to support the Federal PortfolioStat portfolio and investment reviews in coordination with the agency’s Capital Planning and Investment Control process. Also in FY 2016, the agency will continue consolidating small data centers and computer rooms to gain more efficiency across the National Computer Center, the EPA’s primary data center. The EPA is also committed to using cloud computing technologies and has in place an enterprise-wide cloud hosting service. This will include shared services and customized software to support mobile management of inspections and inspection data. (In FY 2016, the Information Technology and Infrastructure activities will be funded, under the Superfund appropriation, at \$5.02 million in fixed costs and \$7.36 million in non-payroll funding.)

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no specific performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$692.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$100.0) This change reflects a realignment of resources to support the Freedom of Information Act (FOIA) program from the Superfund Exchange Network program project to Information Technology/Data Management (IT/DM). FOIA is part of the content management strategy supported in IT/DM which includes records, eDiscovery and privacy.
- (+\$344.0 / -1.4 FTE) This net program change reflects an increase of resources to support agencywide employee training and implementation of an integrated approach for the content and records management activities to streamline the business processes and

create more efficient processes. The reduction in FTE reflects efficiencies gained as a result of IT support contracts through strategic sourcing and use of streamlined enterprise wide acquisition resources.

Statutory Authority:

Federal Advisory Committee Act (FACA), 42 U.S.C. 553 et seq. and Government Information Security Act (GISRA), 40 U.S.C. 1401 et seq. – Sections 3531, 3532, 3533, 3534, 3535 and 3536 and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. 9606 et seq. – Sections 101-128, 301-312 and 401-405 and Clean Air Act (CAA) Amendments, 42 U.S.C. 7401 et seq. – Sections 102, 103, 104 and 108 and Clean Water Act (CWA), 33 U.S.C. 1314 et seq. – Sections 101, 102, 103, 104, 105, 107, and 109 and Toxic Substances Control Act (TSCA), 15 U.S.C. 2611 et seq. – Sections 201, 301 and 401 and Federal Insecticide Fungicide and Rodenticide Act (FIFRA), 7 U.S.C. 36 et seq. – Sections 136a – 136y and Food Quality Protection Act (FQPA), 7 U.S.C. 136 et seq. – Sections 102, 210, 301 and 501 and Safe Drinking Water Act (SDWA) Amendments, 42 U.S.C. 300 et seq. – Sections 1400, 1401, 1411, 1421, 1431, 1441, 1454 and 1461 and Federal Food, Drug and Cosmetic Act (FFDCA), 21 U.S.C. 346 et seq. and Emergency Planning and Community Right-to-Know Act (EPCRA), 42 U.S.C. 11001 et seq. – Sections 322, 324, 325 and 328 and Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6962 et seq. – Sections 1001, 2001, 3001 and 3005 and Government Performance and Results Act (GPRA), 39 U.S.C. 2803 et seq. – Sections 1115, 1116, 1117, 1118 and 1119 and Government Management Reform Act (GMRA), 31 U.S.C. 501 et seq. – Sections 101, 201, 301, 401, 402, 403, 404 and 405 and Clinger-Cohen Act (CCA), 40 U.S.C. 1401 et seq. – Sections 5001, 5201, 5301, 5401, 5502, 5601 and 5701 and Paperwork Reduction Act (PRA), 44 U.S.C. 3501 et seq. – Sections 104, 105, 106, 107, 108, 109, 110, 111, 112 and 113 and Freedom of Information Act (FOIA), 5 U.S.C. 552 et seq. and Controlled Substances Act (CSA), 21 U.S.C. 802 et seq. – Sections 801, 811, 821, 841, 871, 955 and 961 and Electronic Freedom of Information Act (EFOIA), 5 U.S.C. 552 et seq. – Sections 552(a)(2), 552 (a)(3), 552 (a)(4) and 552(a)(6).

Program Area: Legal / Science / Regulatory / Economic Review

Alternative Dispute Resolution

Program Area: Legal / Science / Regulatory / Economic Review

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$1,262.4	\$1,397.0	\$1,452.0	\$55.0
<i>Hazardous Substance Superfund</i>	\$888.0	\$750.0	\$774.0	\$24.0
Total Budget Authority / Obligations	\$2,150.4	\$2,147.0	\$2,226.0	\$79.0
Total Workyears	6.5	7.0	6.7	-0.3

Program Project Description:

The EPA's General Counsel and Regional Counsel Offices provide environmental Alternative Dispute Resolution services (ADR). The EPA utilizes ADR as a method for preventing or resolving conflicts prior to engaging in formal litigation and includes the provision of legal counsel, facilitation, mediation and consensus building advice and support. Funding supports the use of ADR in the Superfund program's extensive legal work with communities and Potentially Responsible Parties (PRPs). The program offers cost-effective processes to resolve disputes and improve agency decision making without costly, protracted litigation.

FY 2016 Activities and Performance Plan:

In FY 2016, the agency will continue to provide conflict prevention and ADR services to the EPA's headquarters and Regional Offices and external stakeholders on Superfund program matters. The national ADR program assists in developing effective ways to anticipate, prevent, and resolve disputes and makes neutral third parties—such as facilitators and mediators—more readily available for those purposes. In FY 2016, the agency plans to support 31 Superfund cases with neutral third party support in areas including: community engagement, allocation negotiations between PRPs, record of decision discussions and Environmental Justice issues related to the cleanup and restoration of Superfund sites.

Additionally, the agency will continue to provide ADR and collaboration advice and conflict coaching for at least 65 new Superfund cases where headquarters programs and Regional Offices are working with stakeholders to improve environmental results. The agency also expects to provide at least 24 training events, reaching about 335 of the EPA's employees (Superfund and non-Superfund), to continue to build the agency's capacity to resolve environmental issues in the most efficient way to achieve the agency's strategic objectives. Under the EPA's ADR Policy

and the OMB/CEQ memorandum on Environmental Collaboration and Conflict Resolution,¹³ the agency encourages the use of ADR techniques to prevent and resolve disputes with external parties in many contexts, including: adjudications, rulemaking, policy development, administrative and civil judicial enforcement actions, permit issuance, protests of contract awards, administration of contracts and grants, stakeholder involvement, negotiations, and litigation.

Providing facilitation/mediation support to Superfund cases and ADR training to agency personnel pays dividends by reducing and often eliminating the need to litigate enforcement and compliance cases, engage in defensive litigation, and litigate hazardous waste remediation determinations and requirements. Superfund site cleanups and their attendant public health benefits occur sooner, and FTE and contract dollar savings accrue to the Office of General Counsel, program offices, regions, Environmental Appeals Board, Office of Administrative Law Judges and the Department of Justice. For example, as previously reported, the EPA estimated 25 percent better environmental outcomes and an average of more than \$50,000 in FTE savings per case in a small pilot study of Superfund and non-Superfund ADR cases. More recently, the EPA conducted a pilot survey of all litigation-related FY 2011 and FY 2012 Superfund and non-Superfund ADR cases and estimated that ADR required 50 percent fewer staff lead hours for active periods and one-third less elapsed time to reach a decision compared to decision making processes that likely would have been used otherwise (e.g., litigation, unassisted negotiation).

Performance Targets:

Work under this program supports all five of the agency's strategic goals. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$24.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.

Statutory Authority:

Administrative Dispute Resolution Act (ADRA) of 1996, 5 United States Code (U.S.C.) Sections 571, 572, and 573, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Section 1111; the EPA's General Authorizing Statutes.

¹³ See- http://www.ecr.gov/pdf/OMB_CEQ_Env_Collab_Conflict_Resolution_20120907.pdf. Issued 9/7/12 by OMB and CEQ

Legal Advice: Environmental Program

Program Area: Legal / Science / Regulatory / Economic Review

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$42,816.4	\$42,027.0	\$52,411.0	\$10,384.0
<i>Hazardous Substance Superfund</i>	<i>\$506.3</i>	<i>\$503.0</i>	<i>\$467.0</i>	<i>(\$36.0)</i>
Total Budget Authority / Obligations	\$43,322.7	\$42,530.0	\$52,878.0	\$10,348.0
Total Workyears	231.8	235.1	274.6	39.5

Program Project Description:

This program provides legal representation, legal counseling and legal support for environmental activities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Funding supports legal advice needed in the Superfund program's extensive work with Potentially Responsible Parties (PRPs) and other entities and landowners. For example, this program provides legal analysis and advice to help inform the EPA's decisions regarding the assessment of certain contaminants at a given Superfund site under federal law, and a party's potential liability under CERCLA.

This program supports the EPA's Superfund work, including thousands of cleanups costing billions of dollars, controlling high exposures to toxins that threaten the public with disease and mortality, the enforcement of the necessary cleanups, and challenges to the EPA's actions. This program is essential to providing the high quality legal work to ensure that the EPA's decisions are defensible and upheld by the courts against judicial challenges. Without these legal successes, the result would be fewer or poorer cleanups, the waste of taxpayer dollars, and potentially the payment from taxpayer dollars of costs incurred by polluters.

FY 2016 Activities and Performance Plan:

In FY 2016, the program will continue to provide legal support for the Superfund program. This program's activities will include analyzing defensibility of agency actions, drafting significant portions of agency actions, and participating in litigation in defense of agency actions. In addition, the program expects to see a continued demand across its legal counseling offices as a result of the agency's transformation to a higher performing organization. All legal counseling offices will be called on to provide legal support for this transformation, while working to ensure continued compliance with all environmental and administrative laws.

The following examples illustrate this program’s important role in implementing the agency’s core priorities and mission.

Goal ¹⁴	Specific EPA OGC Activities in FY 2014
Goal 3	Provided expert legal advice and counsel resulting in the EPA’s promulgation of final rules adding 7 Superfund sites to the National Priorities List (NPL) for cleanup and proposing 5 new sites for listing on the NPL.
Goal 3	Successfully defended a challenge in the D.C. Circuit to an EPA final rule placing a heavily contaminated Superfund site on the National Priorities list for cleanup. This victory is significant because it supports the EPA’s technical and legal approach for listing sites on the NPL and contains strong language affording considerable deference to the EPA.
Goal 3	Successfully defended the CERCLA cleanup regime in litigation that resulted in a 6 th Circuit opinion that limited the ability of potential responsible parties that settle with the EPA to sue other parties. This ruling protects and encourages the expeditious resolution of issues at Superfund sites and will encourage the prompt commencement of cleanup work at these sites.
Goal 3	Successfully defended the EPA’s selection of significant remedial actions under CERCLA for cleaning up significant PCB contamination at three former landfill sites in a Seventh Circuit opinion that articulated a highly deferential standard of review for the EPA and the U.S.
Goal 3	Provided critical legal counseling that resulted in the dismissal of an action in the D. C. Circuit that had the potential to interfere with an important ongoing CERCLA removal action at a former uranium mill. The Court decision issued a lengthy opinion with strong language deferring to the CERCLA jurisdiction when there is an ongoing removal action.
Goal 3	Provided expert legal counseling to the Office of Emergency Management (OEM) and the Regional Offices on the Superfund removal program, which resulted in hundreds of cleanups of highly toxic substances, including asbestos, PCBs and dioxin. OGC gave special attention to those removal actions that dealt with the largest health risks and costs

This program is critical to the Superfund program in a multitude of ways. For example, in support of Goal 3 of the EPA’s Strategic Plan (Cleaning up Communities and Advancing Sustainable Development) this program provides legal advice and counseling for final rules adding Superfund Sites to the National Priorities List.

¹⁴ The EPA’s Strategic Plan for 2014-2018 identifies five strategic goals to guide the agency’s work:

- Goal 1: Taking Action on Climate Change and Improving Air Quality
- Goal 2: Protecting America’s Waters
- Goal 3: Cleaning Up Communities and Advancing Sustainable Development
- Goal 4: Ensuring the Safety of Chemicals and Preventing Pollution
- Goal 5: Enforcing Environmental Laws

Performance Targets:

Work under this program supports all five of the agency's strategic goals. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$12.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$48.0) This program change reflects efficiencies to be realized in business process changes such as consolidated and realignment of administrative support workload.

Statutory Authority:

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 United States Code (U.S.C.) § 9601 – 9659, Sections 101 – 310; the EPA's General Authorizing Statutes.

Program Area: Operations and Administration

Facilities Infrastructure and Operations
Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inland Oil Spill Programs	\$456.9	\$584.0	\$1,762.0	\$1,178.0
Environmental Program & Management	\$305,366.3	\$310,399.0	\$312,180.0	\$1,781.0
Science & Technology	\$75,013.3	\$68,339.0	\$79,170.0	\$10,831.0
Leaking Underground Storage Tanks	\$797.4	\$792.0	\$1,103.0	\$311.0
Building and Facilities	\$23,532.6	\$35,641.0	\$43,632.0	\$7,991.0
<i>Hazardous Substance Superfund</i>	<i>\$70,445.1</i>	<i>\$75,055.0</i>	<i>\$78,160.0</i>	<i>\$3,105.0</i>
Total Budget Authority / Obligations	\$475,611.6	\$490,810.0	\$516,007.0	\$25,197.0
Total Workyears	355.4	367.4	359.5	-7.9

Program Project Description:

Superfund resources in the Facilities Infrastructure and Operations Program fund rent, utilities, security. This program also supports centralized administrative activities and support services, including health and safety, environmental compliance and management, facilities maintenance and operations, space planning, property management, sustainable facilities and energy conservation planning and support, printing, mail and transportation services. Funding is allocated for such services among the major appropriations for the agency.

FY 2016 Activities and Performance Plan:

As part of the EPA's efforts toward becoming a High Performing Organization (HPO), the agency reviews space needs and is implementing a long-term space consolidation plan that will reduce the number of occupied facilities, consolidate space within the remaining facilities, and reduce the square footage wherever practical. In FY 2016, the EPA will continue to invest to reconfigure the EPA's workspaces with the goal of reducing long-term rent costs. This work will enable the agency to release office space and reduce costs as well as support the President's June 2010 memorandum on "Disposing of Unneeded Federal Real Estate." Between FY 2012 and FY 2014 the EPA released over 225 thousand square feet of space at headquarters and facilities nationwide, resulting in a cumulative annual rent avoidance of over \$8.3 million across all appropriations. These savings help offset the EPA's escalating rent and security costs.

In FY 2014, the EPA completed the consolidation of 1310 L Street, which moved over 450 employees into existing Federal Triangle space which helps the agency avoid approximately \$7

million annually in rent starting in FY 2015. Consolidations also are planned for other EPA facilities that will allow the EPA to release another 210 thousand square feet of office space. Even if modifications to accommodate new staff are kept to a minimum, each move requires resources. For example, the EPA had to relocate an additional 1,000 HQ employees from five program offices in existing Federal Triangle Space to accommodate the transfer of 450 employees from 1310 L Street. While Superfund resources supported the 1310 L Street consolidation, the agency accrued most of the rent savings in the EPM appropriation. For FY 2016, the agency is requesting \$45.20 million for rent, \$3.40 million for utilities, and \$8.59 million for security in the Superfund appropriation.

In FY 2016, the EPA will continue to improve operating efficiency and encourage the use of advanced technologies and energy sources to meet the goals of Executive Order (EO) 13423,¹⁵ *Strengthening Federal Environmental, Energy, and Transportation Management*. The agency will attain the EO's environmental performance goals related to buildings through several initiatives, including: comprehensive facility energy audits; re-commissioning; and sustainable building design.

EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, expands upon EO 13423 and requires additional reductions to greenhouse gas (GHG) emissions. To meet the requirements of EO 13514 the EPA will manage existing building systems to reduce consumption of energy, water, and materials, consolidate and dispose of existing facilities, and optimize real property and portfolio performance. In FY 2016, the agency is targeting to reduce energy utilization (or improve energy efficiency) by approximately 37 billion British Thermal Units or three percent. This ongoing effort to become more efficient has yielded impressive results - approximately 27 percent less energy used in FY 2014 than in FY 2003, and annual cost savings of \$5.9 million agencywide.

Performance Targets:

Work under this program supports the performance measures in the Facilities Infrastructure and Operations program under the EPM appropriation. These measures can also be found in the Eight Year Performance Array in the Program Performance and Assessment section. Information on the agency's energy/GHG reduction initiative can be found in the agency's Strategic Sustainability Performance Plan at http://www.epa.gov/greeningepa/documents/sspp2013_508.pdf.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$595.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs including transit subsidy.

¹⁵ Information is available at <http://www.fedcenter.gov/programs/eo13514/>, *Federal Leadership in Environmental, Energy, and Economic Performance*; and <http://www.fedcenter.gov/programs/eo13423/>, *Strengthening Federal Environmental, Energy, and Transportation Management*.

- (+\$694.0) This change to fixed and other costs is an increase due to the recalculation of rent, utility and security needs.
- (+\$1,816.0 / -4.2 FTE) This net program change increases resources critical to funding basic operations and maintenance costs for the EPA's facilities nationwide. This change includes an increase for regional owned laboratory operations and maintenance. The FTE reduction reflects business process changes and efficiencies anticipated from implementing operational changes at the agency's facilities.

Statutory Authority:

Federal Property and Administration Services Act; Public Building Act; Annual Appropriations Act; Robert T. Stafford Disaster Relief and Emergency Assistance Act; CWA; CAA; RCRA; TSCA; NEPA; CERFA; D.C. Recycling Act of 1988; Energy Policy Act of 2005; Executive Orders 10577, 12598, 13150 and 13423; Emergency Support Functions (ESF) #10 Oil and Hazardous Materials Response Annex; Presidential Decision Directive 63 (Critical Infrastructure).

Financial Assistance Grants / IAG Management

Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$23,371.7	\$24,897.0	\$27,847.0	\$2,950.0
<i>Hazardous Substance Superfund</i>	<i>\$3,221.4</i>	<i>\$2,725.0</i>	<i>\$3,027.0</i>	<i>\$302.0</i>
Total Budget Authority / Obligations	\$26,593.1	\$27,622.0	\$30,874.0	\$3,252.0
Total Workyears	162.4	160.8	160.2	-0.6

Program Project Description:

Superfund resources in the Financial Assistance Grants and Interagency Agreement (IA) Management program support the management of grants and IAs, and suspension and debarment activities. Resources in this program ensure that the EPA's management of grants and IAs meets the highest fiduciary standards, that grant/IA funding produces measurable results for environmental programs, and that the suspension and debarment program effectively protects the government's business interest. These objectives are critically important for the Superfund program, as a substantial portion of the program is implemented through IAs with the U.S. Army Corps of Engineers and the Coast Guard.

FY 2016 Activities and Performance Plan:

To further the agency's theme of making the EPA a High Performing Organization, and recognizing the constrained budget environment, the agency will continue to focus on key objectives under its Grants Management Transformation Initiative (GMTI). The GMTI is designed to achieve efficiencies while enhancing quality and accountability.

In FY 2016, the GMTI will focus on: 1) implementing business process improvements identified through LEAN exercises to eliminate duplication of effort between unliquidated obligation and baseline monitoring reviews and streamline the closeout process; 2) replacing the outdated technology of the existing Integrated Grants Management System with robust Business Process Management technologies to modernize the pre-award and award work flows; 3) full use of Grants.gov as the standard electronic option for the initial submission of grant applications to achieve resource savings associated with reduced manual data entry and automated data validation; 4) expanding the use of electronic grant/IA records; 5) leveraging resources to address Project Officer and Grant and IA specialist workload issues, including reducing the number of part-time Project Officers that manage 1 or 2 grants; 6) implementing strategies to

reduce the number of grants that have to be managed through greater use of grant consolidation or sub awards; 7) expanding the 'geo-mapping' of grant place of performance to improve the quality of the EPA's grant data in USA Spending and ensure alignment with the EPA's EJ Screen Tool; 8) migrating the aging Grantee Compliance Database to user-friendly platforms in OMB Max; and 9) reducing the reporting burden on applicants and recipients. As a supplement to the GMTI, EPA will implement a new Grants Management Plan and agency-specific regulations required by the OMB Omni-Circular.

To promote accountability, the EPA will continue to conduct on-site and pre-award reviews of grant recipients and applicants and perform indirect cost rate and unliquidated obligation reviews. The agency also will continue to administer training programs to maintain a skilled grants/IA management workforce, including classroom and on-line training for the agency's grant and IA Project Officers, a comprehensive new training program for the EPA's Grant and IA specialists, and mandatory training for managers and supervisors involved in grants and IA management. The EPA will coordinate these efforts with OMB grants management training initiatives. In FY 2016, the EPA will analyze available grant data to assess whether the GMTI streamlining reforms enacted over the past three fiscal years have achieved their intended efficiencies.

The EPA is a recognized leader in suspension and debarment. The agency will continue to make aggressive use of discretionary debarments and suspensions as well as statutory debarments under the Clean Air Act and Clean Water Act to protect the government's business interest. This will include a goal of at least 300 Suspension and Debarment case actions and full implementation of a new case management system that will facilitate case processing.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, agencywide performance measures for this specific program are outlined in the EPA's 2009-2013 Grants Management Plan. The EPA will issue a new Grants Management Plan, with associated performance measures, in FY 2015 incorporating GMTI themes.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$113.0) This fixed and other costs change reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$189.0 / -0.4 FTE) This net program change increases resources critical to funding basic support costs associated with conducting on-site and pre-award reviews of grant recipients and applicants. The FTE reduction reflects a decline in the need for Regional Office grant and interagency agreement support.

Statutory Authority:

Comprehensive Environmental Response, Compensation, and Liability Act; the EPA's Environmental Statutes; Annual Appropriations Acts, including the Disaster Relief

Appropriations Act, 2013; Federal Grant and Cooperative Agreement Act; Title 2 Code of Federal Regulations, Parts 180, 200, 1500 and 1532; and Title 40 Code of Federal Regulations, Parts 30, 31, 33, 35, 40, 45, 46, and 47.

Acquisition Management

Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$34,537.6	\$30,761.0	\$37,974.0	\$7,213.0
Leaking Underground Storage Tanks	\$147.4	\$139.0	\$138.0	(\$1.0)
<i>Hazardous Substance Superfund</i>	\$23,499.7	\$21,989.0	\$23,923.0	\$1,934.0
Total Budget Authority / Obligations	\$58,184.7	\$52,889.0	\$62,035.0	\$9,146.0
Total Workyears	315.8	308.7	304.5	-4.2

Program Project Description:

Superfund resources in the Acquisition Management program support the agency's contracts activities for Superfund Emergency Response and Removal, Remedial, Emergency Preparedness, and Federal Facilities Response programs. These resources enable the agency to assess, cleanup, prepare and respond to natural disasters and terrorist incidents, and to provide financial and technical assistance to state, local, and Tribal governments and other federal agencies.

FY 2016 Activities and Performance Plan:

As part of the EPA's efforts toward becoming a High Performing Organization and in accordance with *Acquisition Workforce Development Strategic Plan*, the EPA will use Superfund resources to strengthen its contract management training program, to improve the EPA Acquisition System's user interface, and to recruit, retain, and hire acquisition workforce in line with the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 401 et seq.).

The EPA's *Strategic Sourcing Program (SSP)* allows the agency to research, assess, and award contract vehicles that will maximize time and resource savings for services and products, including improved efficiencies in lab and office supplies, and cellular services. The SSP serves as a foundation for effective financial and resource management because it simplifies the acquisition process while reducing costs. In FY 2016, the EPA will continue to create efficiencies by enhancing purchase coordination across the agency to improve price uniformity, improving knowledge-sharing across the EPA, and leveraging small business capabilities to meet the EPA's acquisition goals. Based on the strategic sourcing opportunities identified in the EPA's spend analysis, the agency anticipates establishing strategic contract vehicles and/or approaches in FY 2016 to acquire Superfund remediation services, Information Technology application

development and support services, and software. The long-term SSP plan¹⁶ will transform the agency's acquisition process into a strategically driven function, ensuring maximum value for every acquisition dollar spent. The agency has established a goal of obtaining at least five percent savings for goods and services. For the two current strategic sourcing commodities (cellular services and print management), the agency has achieved savings of 38 percent and 6 percent, respectively, during FY 2014. The EPA anticipates savings of 20 percent and 10 percent, respectively in FY 2015. Cellular savings in FY 2014 reflected some one-time savings related to the acquisition of new mobile devices. Print savings reflect the mid-year date of the contract modification under which the agency obtained a better pricing structure.

In FY 2016, the agency will review and evaluate its achievements from adopting a Centers of Expertise for contracting approach: the implementation of cost saving strategies, increased operational efficiencies, and more effective and responsive contracting support. The Office of Acquisition Management (OAM), which is leading the Centers of Expertise in Contracting initiative, finalized a new organization structure in FY 2014. OAM will begin to transition to the new structure in late FY 2015. The revised structure will realign the agency's acquisition functions and resources to better support the strategic acquisition of goods and services addressed above. More specifically, the initiative is focused on opportunities to realign the agency's contracting functions within OAM and in the regions to better leverage the agency's limited contracting resources, and improve the timeliness and quality of the agency's contracting operations. This will include opportunities to centralize certain contract planning, placement, and administrative functions and activities to gain efficiencies and improve customer service. Such opportunities may include centralizing contracting operations for commonly acquired goods and services, e.g., information technology, and certain administrative functions such as agencywide closeout activities. Centralizing such activities will heighten the level of transparency in the agency's acquisition programs that will reduce if not eliminate unnecessarily redundant contracts for the same goods and services, eliminate non-value added business processes and bring greater consistency to the application of contracting procedures, facilitate a higher-level of expertise for the agency's contracting personnel in understanding the mission objectives and priorities of the customer, the capabilities of the commercial marketplace to support those objectives and priorities, and innovative acquisition and management strategies that will result in more effective and efficient support to the end user.

The EPA also plans to reinforce its contract oversight responsibilities through OMB Circular A-123 - internal control assessments, increased targeted oversight training for acquisition management personnel, and Simplified Acquisition Contracting Officer (SACO) reviews. These measures will strengthen the EPA's acquisition management business processes and enhance contract oversight.

Performance Targets:

Work under this program also supports performance results in the Acquisition Management Program Project and can be found in the Eight Year Performance Array in the EPM Appropriation Program Performance and Assessment section.

¹⁶ The SSP plan can be found at <http://oamintra.epa.gov/node/451>.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$664.0) This change to fixed and other costs is an increase due to the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs
- (+\$1,270.0 / -2.2 FTE) This net program change increases resources critical to funding basic support costs associated with the EPA Acquisition System (EAS). The FTE reduction reflects a decline in the need for support for acquisition management.

Statutory Authority:

The EPA's Environmental Statutes; Annual Appropriations Acts; contract law. Office of Federal Procurement Policy Act, as amended (41 U.S.C. 401 et seq.).

Human Resources Management

Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$39,052.3	\$43,843.0	\$51,344.0	\$7,501.0
<i>Hazardous Substance Superfund</i>	<i>\$6,590.7</i>	<i>\$5,984.0</i>	<i>\$7,953.0</i>	<i>\$1,969.0</i>
Total Budget Authority / Obligations	\$45,643.0	\$49,827.0	\$59,297.0	\$9,470.0
Total Workyears	231.8	238.1	244.1	6.0

Program Project Description:

Superfund resources for the Human Resources Management program support human capital and human resources management services throughout the agency. As requirements and initiatives change, the EPA continually evaluates and improves Superfund program related human resource functions in outreach, recruitment, hiring, and workforce development to help the agency achieve its mission and ensure management and employee satisfaction.

FY 2016 Activities and Performance Plan:

As part of the EPA's efforts toward becoming a High Performing Organization (HPO), the agency will continue to implement the comprehensive hiring reform laid out in the Presidential Memorandum *Improving the Federal Recruitment and Hiring Process*, which required executive departments and agencies to "overhaul the way they recruit and hire our civilian workforce." The key facets of the hiring reform are: ease the hiring process while raising the bar on candidate quality; increase engagement of agency leaders in the recruitment and selection process; and monitor agency efforts to increase the speed and quality of hiring. In addition, the EPA will continue to support the President's Management Agenda, including improving the efficiency of government by increasing the quality and value of core operations and enhancing productivity to achieve cost savings in the mission-support function such as human capital.

In FY 2016, the agency will continue to implement the EPA University. The purpose of the EPA University is to share learning opportunities with employees, encourage shared resources and services across the agency, and increase agencywide collaboration, resulting in greater efficiencies for the agency and better availability of development resources for all staff. It also will support flexibility as workforce realignments occur and new skills are needed. This process will continue to support the agency's focus on maintaining a HPO while actively marketing internal technical and core competency learning events.

The EPA will continue to streamline human resources management with the E-Government initiative and the Human Resources Line of Business (HRLoB) program. HRLoB offers government-wide, cost effective, and standardized HR solutions while providing core functionality to support the strategic management of human capital. The EPA expects to yield long-term improvements to its HR business process through automated processing of HR forms, an integrated HR and payroll system, and seamless data transfer from the recruitment process. The Department of Interior's Business Center (IBC) manages the EPA's HRLoB.

The EPA uses HRLoB for human resource transaction and payroll processing, and for data reporting. After stabilizing the HRLoB systems in FY 2015, the EPA will finalize the migration strategy and initiate the clean-up and migration of human resource data from the legacy system to HRLoB in FY2016. The EPA must maintain legacy data because HRLoB migration occurs at a point in time and resets all transaction history from the migration forward. In addition, in order to service ongoing requests for employment dates, salary data and other vital information, the EPA requires access to this information.

Performance Targets:

The EPA uses a government-wide performance metric (found at <http://archive-hr.performance.gov/initiative/hire-best/agency/EPA>) to track its progress in reducing the average number of days required to hire a new employee. Through the agency's hiring reform efforts, including automating processes and improving hiring tools and practices, the EPA expects to continue to reduce the number of days to hire new employees.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$300.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs and to ensure adequate funding for childcare subsidy, workers compensation, and unemployment compensation.
- (+\$1,669.0) This program change reflects an increase in contractual services for the EPA's sign language program based on increased demand for sign language translation, an increase in fees that the IBC charges the EPA for HRLoB and reestablishes resources critical to finalize the migration strategy and initiate the clean-up and migration of human resource data from the legacy HR system to HRLoB.

Statutory Authority:

Title V USC, Federal Activities Inventory Reform Act of 1998 (FAIR Act).

Central Planning, Budgeting, and Finance
Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$73,721.3	\$72,851.0	\$76,057.0	\$3,206.0
Leaking Underground Storage Tanks	\$677.0	\$421.0	\$440.0	\$19.0
<i>Hazardous Substance Superfund</i>	<i>\$21,723.1</i>	<i>\$22,352.0</i>	<i>\$24,277.0</i>	<i>\$1,925.0</i>
Total Budget Authority / Obligations	\$96,121.4	\$95,624.0	\$100,774.0	\$5,150.0
Total Workyears	486.4	499.2	493.4	-5.8

Program Project Description:

The EPA's financial management community maintains a strong partnership with the Superfund program. The EPA's Office of the Chief Financial Officer recognizes and supports this continuing partnership by providing a full array of financial management support services necessary to pay Superfund bills and recoup cleanup and oversight costs for the Trust Fund. The EPA's Office of the Chief Financial Officer manages Superfund activities under the Central Planning, Budgeting and Finance program in support of integrated planning, budget formulation and execution, financial management, performance and accountability processes, financial cost recovery, and the systems to ensure effective stewardship of Superfund resources.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to provide high-quality resource stewardship to ensure that all agency programs operate with fiscal responsibility and management integrity, are efficiently and consistently delivered nationwide, and demonstrate results. The EPA will continue to provide direction and support for the Superfund program in financial management activities; implementing cost accounting requirements; financial payment and support services; and Superfund-specific fiscal and accounting services. Building on work begun in FY 2014 and 2015, the EPA will continue to monitor and strengthen its internal controls with a focus on sensitive payments and property. The program will also support the agency's Lean efforts to move toward a high performance organization to support business process changes agencywide. To date, the agency has conducted several Lean events that will streamline and improve financial stewardship across the agency, including the interagency agreement management process, the unliquidated obligation / deobligation process, and software applications accounting process. The EPA also will continue to improve accessibility to data to support accountability, cost accounting, budget and performance integration, and management decision-making.

In FY 2016, the systems emphasis, for Compass, HRLoB, and other systems, will be on operations and maintenance. The request for operations and maintenance includes funding for implementing scheduled technology refreshments and minor enhancements, renewing software licenses, as well as providing refresher and new user training.

The EPA will continue development of its Budget Formulation System in FY 2016 to replace the current Budget Automation System. The new system will create efficiencies through automating a number of manual, time-intensive processes and by providing new enterprise tools for agency resource management, and reduce the need for local systems. The new system will have a more streamlined performance module that is aligned with Office of Management & Budget (OMB) and agency requirements, as well as a flexible structure that can be easily modified to support the Common Government-wide Accounting Classification, evolving OMB/Hill budget reporting and tracking requirements as well as other agencies' budget structures. The plan is for the system to be deployed as a cloud service within the EPA and potentially as a shared service for other agencies.

In FY 2016, the EPA also will continue to modernize and modify the agency Account Code Structure to improve tracking and reporting capabilities, maximizing the benefits within the new Compass accounting system. Congressional and OMB requirements will be incorporated and the structure will be simplified, eliminating complicated and conflicting data structures and allowing for improved agency-level reporting. Coordinating the updated account structure with other changes to the financial systems will create significant programming and implementation efficiencies and enable the EPA to implement the provisions of the Digital Accountability and Transparency Act of 2014.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$748.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$211.0 / -1.6 FTE) This program change reflects a reduction as a result of the agency's efforts to streamline business processes and find efficiencies across headquarters and Regional Offices.
- (+\$1,388.0) This program change reflects a restoration of resources to complete planned adaptive maintenance to modernize and modify the Account Code Structure and Cost Allocation modules of the agency's financial system Compass to improve agency-level reporting and other ongoing systems maintenance.

Statutory Authority:

Annual Appropriations Act; Data Accountability and Transparency Act of 2014; Clinger-Cohen Act of 1996; Comprehensive Environmental Response, Compensation and Liability Act; Computer Security Act of 1987; E-Government Act of 2002; Electronic Freedom of Information Act of 1996; Federal Grant and Cooperative Agreement Act of 1977; Federal Activities Inventory Reform Act of 1998; Federal Acquisition Regulations, contract law and the EPA's Assistance Regulations (40 CFR Parts 30, 31, 35, 40, 45, 46, 47); Federal Managers' Financial Integrity Act of 1982; Freedom of Information Act of 1966; Government Management Reform Act of 1994; Improper Payments Information Act of 2002; Improper Payments Elimination and Recovery Act of 2010; Inspector General Act of 1978 as amended ; Paperwork Reduction Act of 1995; Privacy Act of 1974; Chief Financial Officers Act of 1990; Government Performance and Results Act of 1993; The Prompt Payment Act of 1982; Title 5, U.S.C; National Defense Authorization Act.

Program Area: Research: Sustainable Communities

Research: Sustainable and Healthy Communities

Program Area: Research: Sustainable Communities

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inland Oil Spill Programs	\$285.1	\$664.0	\$513.0	(\$151.0)
Science & Technology	\$160,800.7	\$149,975.0	\$139,172.0	(\$10,803.0)
Leaking Underground Storage Tanks	\$327.7	\$320.0	\$348.0	\$28.0
<i>Hazardous Substance Superfund</i>	<i>\$14,450.2</i>	<i>\$14,032.0</i>	<i>\$12,220.0</i>	<i>(\$1,812.0)</i>
Total Budget Authority / Obligations	\$175,863.7	\$164,991.0	\$152,253.0	(\$12,738.0)
Total Workyears	510.4	503.5	478.0	-25.5

Program Project Description:

The EPA’s Sustainable and Healthy Communities (SHC) research program, under the Superfund appropriation, conducts integrated, trans-disciplinary research which results in decision makers having:

- Tools, methods, and information to assess current conditions at Superfund sites;
- Decision support tools to evaluate the implications of alternative remediation approaches and technologies, and reuse of sites; and
- The latest science to support policy development and implementation.

In doing so, the SHC research program is responsive to the Superfund law requirements¹⁷ for “...a comprehensive and coordinated Federal program of research, development, demonstration, and training for the purpose of promoting the development of alternative and innovative treatment technologies that can be used in response actions under the CERCLA program.” This research directly addresses the agency’s priority of cleaning up our communities and making a visible difference in those communities.

Recent accomplishments include:

- Completed research on the first long-term performance of permeable reactive barriers (PRBs) for treating contaminants in groundwater¹⁸. One major challenge for the use of the PRB technology is the identification of uptake mechanisms in the reactive media and recognizing the implications of these mechanisms for the long-term (>10 years) performance of PRBs installed at hazardous waste sites. The research focused on impacts of mineral precipitation and microbial biomass accumulation on contaminant removal efficiency and hydraulic performance of both iron- and carbon-based reactive barriers.

¹⁷ Section 209 (a) of Pub. L. 99-499

¹⁸ <http://www.sciencedirect.com/science/article/pii/S0048969713009704>.

This work demonstrated the potential effectiveness of PRBs beyond 10 years, improving its use as an alternative to pump and treat, reducing remedial costs.

- Completing research on the engineering design and operation of in-situ chemical oxidation systems. Results from this study will be used to develop design guidelines and criteria for (1) injection well spacing, (2) positioning monitoring wells, (3) establishing reliable monitoring parameters, and (4) assessing treatment performance. This research supports Office of Solid Waste and Emergency Response (OSWER) and the Regional Offices in developing the engineering and operational guidelines for site cleanups.
- Research is being completed on the development of a Groundwater Flow Tool. As groundwater flow is one of the most important factors in determining transport to specific receptors, this tool was developed to evaluate spatial and temporal changes in the direction and magnitude of groundwater flow vectors. This tool can be used in evaluations of the effectiveness and optimization of ground-water remediation systems. Automation of these calculations will simplify assessments of the temporal behavior of hydraulic gradients and identification of the factors controlling the temporal variability. This tool supports the Regions in decisions on remedial effectiveness and efficiency.
- Completing research on the use of biological measures to assess the effectiveness of sediment remediation at the site and local scale. Fish collections were made to evaluate whether food web transfer of Contaminants of Concern (COCs) is reduced and by how much using various trophic levels. Short lived fish provide a near time indicator (1-2 years) of change in trophic transfer of bioaccumulative materials, whereas species such as brown bullheads serve as indicators of reduced exposure to PCBs, PAHs and other carcinogens. Assessments were done at remediated and non-remediated locations to track body burden concentrations of bioaccumulative substances. This research assists OSWER and the Regional Offices in assessing remedial effectiveness, particularly dredging.
- Research is being completed on simple, efficient and rapid methods to determine the potential for vapor intrusion (VI) in homes or other structures. As contaminated vapors enter a home or building, the possibility of long-term health risks increases. This research addresses approaches for: indoor air sampling; soil and soil gas sampling; sensitivity of spatial variability as it relates to vapor transport through subsurface heterogeneities and building features; and the temporal influences on sample collection. This research supports OSWER in the development of technical guidance and the Regional Offices in their site assessments and evaluation of remedial performance in addressing VI.

FY 2016 Activities and Performance Plan:

The SHC research program will provide the EPA's scientific and remedial project managers and site managers in the EPA's Regional Offices, as well as community decision-makers with research which improves their ability to weigh alternatives, and make decisions on cleaning up contaminated sites. SHC research will aid the EPA Regional Offices in developing and evaluating methods, approaches, and models to assess and manage contamination at Superfund

sites. Additionally, research will address source control and plume management, which will reduce drinking water contamination, vapor intrusion and sediment contamination. Adoption of these technologies from this research program has resulted in documented cost- and time-savings associated with cleaning up contaminated sites.

Site-specific and general technical support will be provided to EPA's program and regional offices that remediate Superfund sites. This support has enabled regional decision makers to set science-based cleanup levels that are protective of human health while reducing cleanup costs while protecting communities and their resources. This work is request-driven as decision-makers encounter complex hydrogeologic settings, mixtures of contaminants, uncertain pathways of exposure, and performance issues with the tools and technologies available to Superfund policymakers and site managers.

Performance Targets:

Work under this program also supports performance results in the Sustainable and Healthy Communities Program under the Science and Technology tab, and can be found in the Eight-Year Performance Array.

The EPA has established a standing subcommittee under ORD's Board of Scientific Councilors (BOSC) for the SHC program to evaluate its performance and provide expert feedback to the agency. In addition, ORD will meet regularly with both the BOSC and the Science Advisory Board over the next several years to seek their input on topics related to research program design, science quality, innovation, relevance and impact, within the context of the agency's Strategic Plan.

The EPA also collaborates with several science agencies and the research community to assess our research performance. For example, the EPA is partnering with the National Institutes of Health, National Science Foundation, Department of Energy, and Department of Agriculture. The EPA also works with the White House's Office of Science and Technology Policy and supports the interagency Science and Technology in America's Reinvestment-Measuring the Effect of Research on Innovation, Competitiveness and Science (STAR METRICS) effort.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$977.0) This change reflects an increase of \$141.0 to fixed and other costs for the agency recalculation of base workforce costs due to adjustments in salary, working capital fund, and benefits, and a decrease of \$1,118.0 for essential research program support costs.
- (-\$835.0 / -2.6 FTE) This program change continues the reduction of EPA's research on the characterization and treatment of contaminated sediments begun in FY 2015. It also reduces research on the assessment of vapor intrusion and groundwater flux-based site management.

Statutory Authority:

CERCLA, Section 105(a)(4) and Section 115 read together with Executive Order 12580, 42 U.S.C. 9605 (a)(4) and 9615; Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 104(i) and 42 U.S.C. 9660 – Sec. 311 (c) 42 U.S.C. 9602 - Section 102, Section 311, 42 U.S.C. 9604 (i) (1); Superfund Amendments Reauthorization Act 42 U.S.C.7401 – Sec. 209 (a) and Sec. 403 (a,b).

Program Area: Research: Chemical Safety and Sustainability

Human Health Risk Assessment

Program Area: Research: Chemical Safety and Sustainability
Goal: Ensuring the Safety of Chemicals and Preventing Pollution
Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Science & Technology	\$37,813.5	\$39,423.0	\$39,277.0	(\$146.0)
<i>Hazardous Substance Superfund</i>	<i>\$3,113.9</i>	<i>\$2,843.0</i>	<i>\$2,831.0</i>	<i>(\$12.0)</i>
Total Budget Authority / Obligations	\$40,927.4	\$42,266.0	\$42,108.0	(\$158.0)
Total Workyears	176.8	183.5	178.9	-4.6

Program Project Description:

The EPA's Human Health Risk Assessment (HHRA) research program supports the risk assessment needs of the agency's Superfund programs by synthesizing scientific information on the health and environmental impacts of exposures to individual chemicals and chemical mixtures that are in the environment to assist in the agency's goal of taking action on toxic and chemical safety. The EPA's Human Health Risk Assessment (HHRA) research program supports the risk assessments needed by the agency's Superfund programs by synthesizing scientific information on individual chemicals and chemical mixtures that are in the environment to assist in the agency's goal of taking action on toxic and chemical safety. These assessments support the agency's priority to make a visible difference in communities and span the range from state-of-the-science human health assessments to screening level values that help to focus monitoring and future evaluations. All provide a sound scientific basis for the myriad of risk management decisions facing our communities (*e.g.*, regulations, site-specific cleanups). HHRA's assessment work allows the EPA to better understand the possible implications of exposure and predict and reduce risk.

The EPA's HHRA program develops Provisional Peer Reviewed Toxicity Values (PPRTVs) and other risk and exposure assessment tools supporting EPA's clean-up decisions at contaminated Superfund and hazardous waste sites. EPA scientists also provide technical support and tools to enhance the agency's ability to make risk-based decisions on a case-specific basis, thereby reducing risks for sensitive and susceptible populations. The HHRA program provides this support by:

- Advancing exposure assessment and cumulative risk assessment (CRA) approaches to assess ecological risk, better support "place-based" assessments, address community concerns, and characterize sustainability;
- Incorporating high throughput screening (HTS) and other emerging data streams to support prioritization, risk screening and assessment;
- Working with the Sustainable and Healthy Communities (SHC) research program to support the EPA's Superfund Technical Support Centers; and

- Providing technical support and exposure assessment tools that enhance the EPA's ability to quickly make sound, risk-based decisions on a case-specific basis, thereby reducing risks for sensitive and susceptible communities.

Recent accomplishments include:

- The IRIS program completed the assessment of cancer and non-cancer hazard and dose-response for Libby Amphibole Asbestos. This assessment is being used now to support actions by EPA Region 8, EPA's Office of Solid Waste and Emergency Response, and state risk assessors to address the public health emergency in Libby, Montana.
- Completed numerous PPRTV documents based on needs and priorities of the EPA's Superfund program;
- Delivered PPRTV on San Trimer to Program Office and Region 2 to assist Toms River in risk management decisions for a contaminated site in New Jersey.
- Worked with EPA Region 3 on the West Virginia spill of 4-methylcyclohexanemethanol (MCHM) to develop an inhalation value in anticipation of tank removal at the contaminated site.
- Fielded more than 180 requests for scientific support on human and ecological assessment via the Superfund Technical Support Centers.
- Released EPA Expo-Box, a web-based compendium of tools that provides easy access to data bases, models, guidance documents, and other resources used by exposure assessors.

FY 2016 Activities and Performance Plan:

The EPA's HHRA program will continue to engage important stakeholders and the scientific community to identify and develop health hazard assessments for the highest priority chemicals of relevance to Superfund site assessments and remediation. In FY 2016, the program will develop and support these assessments through the following activities:

- Continuing essential technical assistance across the EPA to provide rapid risk assessments, combining problem formulation and state-of-the-art exposure information and tools with hazard information, chiefly through the continued development of PPRTVs for evaluating chemical specific exposures at Superfund sites.
- Incorporate and characterize the utility of new data streams as applied to prioritization, rapid risk screening and assessment.
- Continuing to provide consultative support through the Superfund Technical Support Centers for the derivation of toxicity values by the EPA's Superfund program when a value is not available in the IRIS database. This work improves the EPA's ability to make decisions and address site related environmental health problems.

- Advance exposure assessment and cumulative risk assessment methods to assess ecological risk, better support “place-based” assessments, address community concerns, and characterize sustainability.

Performance Targets:

Work under this program also supports performance results in HHRA Science & Technology, which also can be found in the Performance Eight-Year Array. In their joint review of the HHRA program, the EPA’s SAB and Board of Scientific Counselors indicated during their oral summary on July 11, 2012, that “with an extensive portfolio of risk assessment activities, the HHRA provides a superb platform for carrying out applied research. An agenda of research should be maintained that builds from this opportunity.”¹⁹ To assess research performance and provide strategic direction, two federal advisory Committees reviewed the EPA’s research programs. EPA has established a standing subcommittee under ORD’s Board of Scientific Counselors for portions of the HHRA program to evaluate its performance and provide expert feedback to the agency. In addition, ORD will meet regularly with both the BOSC and SAB over the next several years to seek their input on topics related to research program design, science quality, innovation, relevance and impact, within the context of the agency’s Strategic Plan. The IRIS portion of the HHRA Program will be reviewed by the Chemical Assessment Advisory Committee of the SAB.

The EPA collaborates with several science agencies and the research community to assess our research performance. For instance, the EPA is partnering with the National Institutes of Health, the National Science Foundation, the DOE, and the USDA. The agency also will work with the White House’s Office of Science and Technology Policy. The EPA supports the interagency Science and Technology in America’s Reinvestment—Measuring the Effect of Research on Innovation, Competitiveness and Science (STAR METRICS) effort. This interagency effort is helping the EPA to more effectively measure the impact federal science investments have on society, the environment, and the economy.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$12.0 / -0.5 FTE) This change reflects an increase of \$75.0 to fixed and other costs for the agency recalculation of base workforce costs due to adjustments in salary, working capital fund, and benefits, and a decrease of \$87.0 and 0.5 FTE for essential research program support costs.

Statutory Authority:

CAA Amendments, 42 U.S.C. 7403 et seq. - Sections 103, 108, 109, and 112; CERCLA (Superfund, 1980), Section 209(a) of Public Law 99-499; CWA Title I, Sec. 101(a)(6) 33 U.S.C. 1254 – Sec 104 (a) and (c) and Sec. 105; ERDDA 33 U.S.C. 1251 – Section 2(a); FIFRA (7 U.S.C. s/s 136 et seq. (1996), as amended), Sec. 3(c)(2)(A); FQPA PL 104-170; SDWA (1996) 42 U.S.C. Section 300j-18; TSCA (Public Law 94-469): 15 U.S.C. s/s 2601 et seq. (1976), Sec. 4(b)(1)(B), Sec. 4(b)(2)(B).

¹⁹ [http://yosemite.epa.gov/sab/sabproduct.nsf/36EBF661CA14106185257A380048FEAE/\\$File/HHRA+Overview_final.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/36EBF661CA14106185257A380048FEAE/$File/HHRA+Overview_final.pdf)

Program Area: Superfund Cleanup

Superfund: Emergency Response and Removal

Program Area: Superfund Cleanup

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Restore Land; Preserve Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Hazardous Substance Superfund</i>	<i>\$190,290.6</i>	<i>\$181,306.0</i>	<i>\$190,732.0</i>	<i>\$9,426.0</i>
Total Budget Authority / Obligations	\$190,290.6	\$181,306.0	\$190,732.0	\$9,426.0
Total Workyears	260.1	251.2	243.7	-7.5

Program Project Description:

The EPA’s Superfund Emergency Response and Removal program (SF Removal) possesses the capability to respond to a contamination incident regardless of cause. SF Removal is a “backbone” or foundation of national response, and as such, it is a capability that is essential to national resilience. As a major part of a national infrastructure designed to respond to and protect human health and the environment, the SF Removal program has valuable expertise that assists in the response and preparedness activities associated with the potential releases of chemical, oil and hazardous substances, discharges to our inland waterways, or any other type of all hazards. The program assists with multi-media training and exercise development/implementation for responders which establish and sustain coordination with states, local communities, tribes, and other federal officials. In addition, the SF Removal program provides technical assistance support and outreach to industry, states, and local communities as part of the agency’s effort to ensure national safety and security for chemical and oil incidents.

Response requirements arise as a result of: natural disasters such as major flooding, hurricanes and tornados; industrial contamination such as hazardous substance releases to air, water, or soil; accidents; and acts of terror or malfeasance. Responses are needed in order to contain and remove hazardous substances but also may be undertaken to address chemical, biological, and/or radiological agent contamination. In all these cases, the federal response involves the SF Removal program. From FY 2008 to FY 2014, the EPA completed or oversaw more than 2,500 removal actions across the country. These cleanups were of varying complexity and contained a wide range of contaminants that posed a threat to human health and the environment. The figure on the next page shows common contaminants at removal actions from FY 2012 through FY 2014.

Rank	Contaminant	Number of Incidences	Contaminant	Number of Incidences	Contaminant	Number of Incidences
	FY 2012		FY 2013		FY 2014	
1	Mercury	69	Lead	58	Mercury	59
2	Lead	67	Mercury	56	Lead	40
3	Asbestos	47	Chromium	33	Asbestos	30
4	Flammables	42	Flammables	29	Flammables	27
5	PCBs	40	Asbestos	28	Arsenic	23
6	VOCs	38	Acids	26	Waste oil	23
7	Arsenic	26	Cyanide	25	Acids	22
8	Chromium	23	PCBs	20	PCBs	21
9	TCE	23	TCE	17	Chromium	14
10	Acids	20	VOC	17	VOCs	14

The EPA’s On-Scene Coordinators (OSCs) respond to and/or provide technical assistance regularly. This assistance is carried out in support of local, state, and Tribal first responders and can bring broader expertise to manage certain types of emergency responses. Responding to and removing the source of contamination is vital to the health and well-being of the impacted community, and the EPA’s role as this “safety net” is a fundamental part of the national response system. The EPA’s support is heavily relied upon to deal with environmental emergencies.

The SF Removal program resources trains, equips, and deploys resources in order to manage, contain, and remove multi-media hazardous substances, contaminants and oil. If left unaddressed, these contaminants will pose an imminent threat to public health and/or have a critical environmental impact on communities. The EPA’s 24-hour-a-day response capability is a cornerstone element of the National Contingency Plan (NCP). The SF Removal program is identified by the White House as a Primary Mission Essential Function (PMEF). Specifically, the EPA’s only PMEF is to prevent, limit, mitigate, or contain chemical, oil, radiological, biological, and hazardous materials during and in the aftermath of an accident, natural or man-made disaster in the United States and provide environmental monitoring, assessment and reporting in support of domestic incident management as part of the National Response Framework (NRF).

The SF Removal program was initially designed and has been consistently used to complement several response areas including agency oil and homeland security activities.²⁰ SF Removal resources address releases that pose an imminent threat to public health or welfare and the environment while the Superfund Remedial program addresses more long-term cleanup activities. SF Removal partners with the SF Remedial program, as needed, for assessment and site cleanup activities involving National Priorities List (NPL), non-NPL, and Potentially Responsible Party (PRP) actions.

The SF Removal program also is available to support other elements of the EPA (such as the Brownfields program and the Oil Spill program); other federal partners such as the Department of Homeland Security, United States Coast Guard and the Federal Emergency Management Agency under the NRF; and state, local and Tribal first responders. These parties will often turn to SF Removal program personnel as subject matter experts and “reach back” liaisons into the

²⁰ The EPA Homeland Security program, in turn, has developed into providing technical expertise, assets and support during nationally significant incidents.

rest of the EPA and into the larger federal support capability. In this sense, SF Removal personnel have become a critical element of the emergency response capability in communities all across America and are performing a vital service in support of national resiliency at the grassroots level and on a day-to-day basis, creating a model for interagency and cross-government cooperation.

FY 2016 Activities and Performance Plan:

In FY 2016, the SF Removal program will continue to be a key federal responder to contamination events, managing risks to human health, and the environment. The requested increase provides critical resources to enhance the agency's ability to quickly respond to simultaneous emergencies and keep communities safe and healthy. Resources will be used to assist with more comprehensive, resource-intensive, time-critical cleanup actions. The program also will continue to provide response support to state, local, Tribal, and potentially responsible parties when their response capabilities are exceeded. Budget constraints at the state and local level have led to an even greater reliance on the SF Removal program as a safety net for addressing contaminated sites requiring immediate attention, including abandoned or orphaned sites. These efforts support the agency's priority to make a visible difference in communities.

In FY 2014, the agency completed 165 Superfund-lead removal actions and oversaw 139 PRP removal completions. The Superfund-lead removal actions target of 170 was missed since the EPA cannot predict the number of responses that are encountered each year and the rate of removal starts and completions has been decreasing in recent years. As with any emergency response situation, however, there is no guarantee that this trend will continue. As such, in FY 2016, the EPA will continue to improve coordination with the states to manage contamination, respond to environmental emergencies and conduct removal actions based upon the risk to human health and the environment in urban, rural and Tribal communities.

In FY 2016, the EPA will continue to respond to and/or provide support for emergency responses, removal assessments, and cleanup response actions at NPL and non-NPL sites. The EPA also will continue to conduct multi-media training for federal OSCs to develop, enhance and specialize their technical skills and expertise in chemistry, biology, hydrology, geology, etc., to respond to, assess, mitigate, and clean up releases which present unique challenges (e.g., Deepwater Horizon).

The EPA will continue to be available to support other agency programs and our federal, state, local, and Tribal partners. The EPA also will continue to maintain the Emergency Management Portal (EMP) modules and support the maintenance of the computer generated, emergency planning and response tools for first responders. EMP ties together prevention, preparedness, and response information to allow the EPA's emergency management community access to information they need to respond to and efficiently store decontamination related data and track field personnel, equipment, and reconnaissance data from large and small sites. During large-scale incidents, the public can view site related data on a daily basis.

The EPA will continue to support the National Response Center (NRC), which is the federal entry point for reporting all oil and chemical discharges into the environment anywhere in the

United States and its territories. The NRC serves as the sole 24-hour-a-day contact point to receive incident reports under the National Response System and disseminate reported release reports to the responding federal OSC. Each year headquarters and regional emergency operations centers receive approximately 30,000 incident report notifications from the NRC.

The Environmental Response Team (ERT) was established to fill the role of the inland scientific support coordinator. The ERT provides assistance at the scene of hazardous substance releases, offering expertise in such areas as treatment, biology, chemistry, hydrology, geology, and engineering. In FY 2016, the ERT will continue to provide support for the full range of emergency response actions, including unusual or complex emergency incidents. In such cases, the ERT brings in special equipment and provides the OSC or lead responder with knowledge and advice.

Performance Targets:

Measure	(137) Number of Superfund removals completed.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target							275	275	Removals
Actual									

Measure	(C1) Score on annual Core NAR.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	No Target Established	55	60	70	72	75	80	82	Percent
Actual	84.3	87.9	77.5	75.8	82.2	Data Avail 2/2015			

In FY 2016, the EPA will complete or oversee a total of 275 Superfund-lead and PRP-lead removal actions (including voluntary, Administrative Order on Consent, and Unilateral Administrative Order actions). The EPA will continue to implement its annual assessment of its response and removal preparedness via the Core National Approach to Response (Core NAR) assessment, which grew out of its Core Emergency Response program and assessment. Core NAR addresses day-to-day preparedness for removal actions for Regions, Special Teams, and Headquarters. In FY 2016, the EPA will target a score of 82 on the annual Core NAR.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,174.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$8,252.0 / -7.5 FTE) This net program change increases critical resources to further the EPA’s ability to quickly respond to multiple simultaneous emergencies and to assist with more comprehensive, resource-intensive, time-critical cleanup actions. The increase is offset by a FTE reduction reflecting efficiencies anticipated to be achieved in regional removal support activities.

Statutory Authority:

Comprehensive Environmental Response, Compensation and Liability Act, as amended, 42 United States Code SC 9601 et seq. - Sections 104, 105 and 106.

Superfund: EPA Emergency Preparedness

Program Area: Superfund Cleanup

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Restore Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Hazardous Substance Superfund</i>	\$7,710.2	\$7,636.0	\$7,843.0	\$207.0
Total Budget Authority / Obligations	\$7,710.2	\$7,636.0	\$7,843.0	\$207.0
Total Workyears	36.6	37.9	37.4	-0.5

Program Project Description:

The EPA implements the Emergency Preparedness program in coordination with the Department of Homeland Security (DHS) and other federal agencies in order to deliver federal hazard assistance to state, local, and Tribal governments during natural disasters and terrorist incidents. The agency carries out this responsibility under multiple statutory authorities as well as the National Response Framework (NRF), which provides the comprehensive federal structure for managing national emergencies. The EPA is the designated lead for the NRF's Oil and Hazardous Materials Response Annex - Emergency Support Function #10 which covers responsibilities for responding to releases of hazardous materials, oil, and other contaminants that are a threat to human health and the environment. As such, the agency participates and leads applicable interagency committees and workgroups to develop national planning and implementation policies at the operational level.

The EPA is designated as the lead agency for the National Response System (NRS), the nation's comprehensive environmental program which integrates emergency preparedness and response to risks. The NRS, established over 40 years ago, assures that federal, state, Tribal, local and private responders are linked through emergency planning and preparedness functions. Area Committees, Local Emergency Planning Committees and Regional Response Teams provide avenues for oil, hazmat, community, and facility preparedness and readiness to ensure that responses are coordinated and organized in a manner that maximizes the efficiency and effectiveness of planning for risks and execution. This leadership and the resulting community preparedness is an essential element of national resiliency, and is a model for efforts now being launched under the broader Homeland Security effort. The EPA continues to work closely with DHS and other federal partners in developing similar levels of community preparedness focused on security concerns and reducing their level of risk.

As a major part of a national infrastructure designed to respond to and protect human health and the environment, the Superfund (SF) programs have valuable expertise that would assist in the response, preparedness and prevention activities associated with the safety and security of potential releases of chemical, oil and hazardous substances, discharges to our inland waterways, or any other type of all hazards. The program assists with multi-media training and exercise development/implementation, as well as increasing coordination with states, local communities,

Tribes, and other federal officials. In addition, the SF program may provide technical assistance, resources and outreach to industry, states, and local, potentially vulnerable communities as part of the agencies effort to ensure national safety and security for chemical and oil incidents.

The EPA's leadership in federal preparedness includes chairing the 15-agency National Response Team (NRT) and co-chairing with the U.S. Coast Guard the 13 Regional Response Teams (RRTs) throughout the United States and trust territories. These teams coordinate the actions of federal, state, local, and Tribal partners to prevent, prepare for, and respond to emergencies, and provide an all hazard response capability. The Superfund Emergency Preparedness program supports the agency's themes of building more efficient and cost-effective state, Tribal and local partnerships and protecting human health and the environment by assisting with the development of Area Contingency Plans and other prevention and preparedness guidance documents that serve a critical role in coordinating and expediting community response when environmental emergencies and disasters do occur.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA's preparedness activities will address key priority lessons learned from actual responses. This may include training and exercise development/implementation; increasing coordination with states, local communities, tribes, and other federal officials with the development of Area and Regional Contingency Plans; and providing technical assistance and outreach to industry, states, and local communities. The agency will continue to fulfill its duties under the NRF, while reviewing many core business practices to be more efficient.

The EPA will continue to lead the NRT and co-chair the 13 RRTs throughout the United States, but will limit contracted support staff and the retention of external subject matter experts, relying more heavily on internal staff. The NRT and RRTs coordinate federal partner actions to prevent, prepare for, respond to, and recover from releases of hazardous substances, oil spills, terrorist attacks, major disasters, and other emergencies, whether accidental or intentional. The NRT and the RRTs are the only active environmentally-focused interagency executive committees focused on addressing oil and hazardous substance emergencies. They serve as multi-agency coordination groups supporting our responders when convened as incident specific teams.

In FY 2016, the EPA will participate in a national exercise held by the Federal Emergency Management Agency (FEMA). Building on the large scale federal investment to better structure responses that have taken place since Hurricane Katrina/Superstorm Sandy and current efforts to enhance national emergency response management, the EPA and its partner NRT agencies will continue implementation of the National Incident Management System and the NRF. The EPA and its partner NRT agencies will strive to continuously improve notification and response procedures, develop response technical assistance documents, implement and test incident command/unified command systems across all levels of government and the private sector, and assist in the refinement of Regional Contingency Plans and Area Contingency Plans.

The EPA will continue to provide staff support during national disasters, emergencies, and high profile and large-scale responses carried out under the NRF. When activated under the NRF, the EPA supports incident specific activities at the NRT, RRTs, Domestic Resilience Group, and the

National Operations Center. Such support during a response is normally funded on an incident specific basis through the Stafford Act or various trust funds. Additionally, the EPA involvement on corrective action work will be limited to the top priority lessons learned, primarily from actual response actions and those not requiring extramural support.

Performance Targets:

Work under this program also supports performance results in the Superfund program and can be found in the Eight-Year Performance Array under Goal 3, Objective 3.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$416.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$209.0 / -0.5 FTE) This program change reduces resources in the EPA's involvement on national and local committees and subcommittees. The EPA will continue to maintain its national leadership responsibilities for those groups.

Statutory Authority:

Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 United States Code 9601 et seq. - Sections 104, 105 and 106; Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, 42 United States Code 5121 et seq.

Superfund: Federal Facilities

Program Area: Superfund Cleanup

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Restore Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Hazardous Substance Superfund</i>	\$23,610.5	\$21,125.0	\$26,265.0	\$5,140.0
Total Budget Authority / Obligations	\$23,610.5	\$21,125.0	\$26,265.0	\$5,140.0
Total Workyears	115.2	112.7	111.7	-1.0

Program Project Description:

The EPA’s Superfund Federal Facilities Response program oversees and provides technical assistance, as requested by other federal agencies and states, for the protective and efficient cleanup and reuse of federal facilities. After years of service and operation, some federal facilities contain environmental contamination, such as hazardous wastes, unexploded ordinance, radioactive wastes, or other toxic substances. Superfund cleanups are undertaken to address long-term threats to public health from hazardous substances and the environment.

Federal facilities under this program include various types of sites, such as active realigning and closed military installations, current and former nuclear weapons production facilities, landfills, and Formerly Used Defense Sites (FUDS). Often, the EPA and the other federal agencies implementing the remedies face unique challenges due to the types of contamination present, the size of the facility, the extent of contamination, ongoing facility operation needs, complex community involvement requirements, and complexities related to the redevelopment plans for the facilities.

The EPA fulfills a number of statutory and regulatory obligations at federal facilities, including assessing sites for potential listing on the Superfund National Priorities List (NPL), conducting oversight at NPL sites where cleanup is being completed by other federal agencies, such as the Department of Defense (DoD) and the Department of Energy (DOE), enforcing statutorily required Federal Facility Agreements (FFAs), approving property transfers, and maintaining the Federal Agency Hazardous Waste Compliance Docket (Docket).

The EPA’s oversight authority, primarily exercised at NPL sites, provides a review of federal cleanups that ensures work being conducted by other federal agencies is consistent with the site cleanup plans and is protective of human health and the environment. The EPA, as required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), is responsible for activities such as: 1) reviewing and approving site cleanup documents; 2) participating in site meetings with the affected communities; 3) making final remedy selection decisions at NPL sites; and 4) monitoring remediation schedules as outlined in the FFAs. These FFAs state that the EPA has the final decision making authority for remedy selection to ensure the protection of human health and the environment from releases of hazardous substances.

Decision documents, which support final remedy selection, are subject to statutorily required review and assessment by the EPA in accordance with the milestones and timeframes established in the FFA. The EPA's role provides substantive value in assisting other federal agencies in achieving their program cleanup goals.

The Superfund Federal Facilities Response program ensures compliance with the limited statutory responsibilities related to the transfer of contaminated federal properties. CERCLA provides limited authority to the EPA for property transfers, which includes the approval for transfers prior to implementation of remedies (i.e., early transfer at NPL sites), and for determinations that remedies are Operating Properly and Successfully (OPS) at both NPL and non-NPL sites. For more information about the program, please refer to <http://www2.epa.gov/fedfac>.

The Federal Facilities program continues to develop and implement innovative technologies, processes, and collaboration efforts. By working in concert with sister federal agencies, the EPA continues to promote the advancement of cleanup technologies, expansion of contaminated land reuse to support renewable energy projects, and multiple initiatives to support sustainability. These demonstration projects not only help support the agency's goal to cleanup communities and advance sustainable development but they also facilitate the introduction of innovative solutions to both the public and private sector.

FY 2016 Activities and Performance Plan:

In addition to fulfilling its statutory responsibilities at NPL facilities, the EPA will continue to focus on the Site Evaluation Project (FFSEP). As part of Section 120(d) of CERCLA, the EPA is required to take steps to assure that a Preliminary Assessment (PA) is conducted by federal facilities within 18 months of noting a hazardous substance release on the Docket. The EPA evaluates these facilities for potential response action or inclusion on the NPL. The last update of the Federal Facility Hazardous Waste Compliance Docket in December, 2014 listed 2,392 facilities on the Docket.

FFSEP (<http://epa.gov/swerffr/ffsep/>) began under OSWER's Integrated Cleanup Initiative (ICI) to determine the disposition of sites that appeared to be making insufficient, if any, cleanup progress. The FFSEP advances the concepts of transparency, public participation, and collaboration with our federal partners in order to promote efficient and effective federal facility cleanups. In the creation of FFSEP, the EPA collaborated with our federal and state partners to solicit and include site information from their records. This collaboration was invaluable to the success of the project. The FFSEP also addressed issues raised in the U.S. Government Accountability Office's March 2009 Report to Congress entitled "Superfund – Greater EPA Enforcement and Reporting Are Needed to Enhance Cleanup at DoD Sites."

The first phase of the FFSEP evaluated 514 federally owned sites where the site assessment or cleanup status was unknown or undocumented. This phase identified deficiencies at some sites. In FY 2016, the EPA will continue to work in concert with states and federal facilities on a multi-year effort to complete the outstanding facility assessments and close the compliance gap. The EPA will also commence Phase 2 of the initiative which will work on advancing the

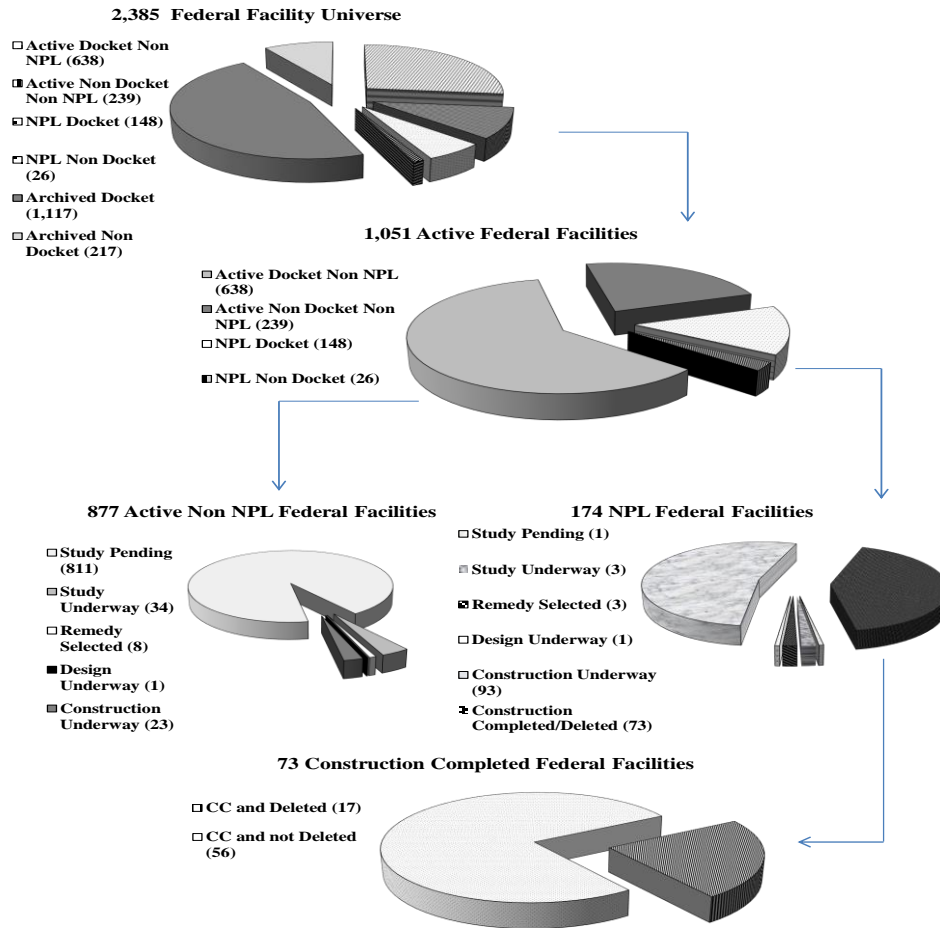
transparency of cleanup information for sites on the Docket so that communities can follow cleanup efforts in the same way that they can currently follow NPL cleanup efforts. This valuable initiative will not only reduce potential federal liability, but will provide critical information on whether further cleanup action may be warranted at sites which may have been neglected for many years.

To ensure the long-term protectiveness of the remedies, the agency will continue monitoring, overseeing progress, and improving the quality and consistency of five-year reviews conducted at federal sites where waste has been left in place and land use is restricted. Five-year reviews are required under Section 121(c) of CERCLA and the EPA's role is to concur or make its own independent protectiveness determination. The EPA has been working collaboratively with DoD, DOE, and Department of the Interior (DOI) through a federal workgroup to improve the technical quality, timeliness, and cost of the five-year review reports and to ensure that the community is aware of the protectiveness status. The workgroup continues to assess the use of best management practices and evaluates trend data to improve the five-year review process. In FY 2016, the EPA will review approximately 32 federal NPL five-year review reports in order to fulfill statutory requirements and to inform the public regarding the protectiveness of remedies at those NPL sites.

In FY 2016, the Superfund Federal Facilities Response program will continue to focus on cleanups at NPL federal facilities and putting the sites back into productive use while protecting human health and the environment. At the end of FY 2014, there were 174 federal sites on the NPL. Despite the smaller number of federal sites on the NPL, the large size of these federal sites results in the Superfund Federal Facilities Response program contributing significantly to Superfund pipeline accomplishments.

The Federal Facilities Response Site Activity Chart represents the known universe of hazardous substances released into the environment at federal facilities, active remediation classified by NPL versus Non-NPL status and construction completed at NPL federal facilities.

Superfund Federal Facilities Response Site Activity



Progress is determined by most advanced operable unit. Chart results generated from SEMS data, EOY 2014

In FY 2016, with an increase of essential core program funding, the EPA will utilize the programmatic increase of approximately \$4.7 million to meet statutory CERCLA obligations; to ensure protectiveness of human health and the environment; and to work collaboratively with states and other federal agencies to provide technical support at both NPL and Non-NPL sites. The EPA will also continue to work with the other agencies to review cleanup schedules and approve Records of Decisions (RODs) which are public documents that evaluate/select cleanup alternatives. In addition, the EPA will continue strengthening oversight and technical assistance, as appropriate, at DoD's military munitions response sites on the NPL. These military munitions response sites contain unique chemical and explosive compounds and present cleanup challenges, such as underwater munitions. The EPA supports DoD's development of new technologies to streamline munitions cleanups. The newly emerging classification technology may save DoD significant resources over conventional technologies and accelerate cleanup of sites, but will require more extensive EPA oversight to ensure protectiveness. Emerging contaminants and human health hazards, such as vapor intrusion, also require direct agency

oversight as federal agencies reopen various site assessment and cleanup activities to address such contamination.

The agency will continue supporting DoD at selected Base Realignment and Closure (BRAC) installations that have been closed or realigned during the first four rounds of BRAC (BRAC I - IV). This includes, but is not limited to, meeting and expediting statutory obligations for overseeing cleanup and ensuring remedy protectiveness after property transfer. The EPA's BRAC I - IV accelerated cleanup program, which is steadily ramping down, continues to be funded through an interagency agreement (IA). The current BRAC IA, which was signed on February 28, 2011, is scheduled to expire on September 30, 2016. The FY 2016 request does not include support for BRAC-related services to the DoD at those facilities affected by the fifth round of BRAC in 2005.

In FY 2016, the EPA will continue to implement a modernized business work-sharing model for managing workload demands with existing personnel in the Federal Facilities Response program. The new business work-sharing model will enable rapid deployment of qualified/expert personnel to assist regions in meeting priority goals and statutory requirements.

Performance Targets:

Measure	(FF1) Percent of Superfund federal facility sites construction complete.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target						86	87	88	Percent
Actual						Data Avail 1/2015			

The Superfund Federal Facilities Response program's ability to meet its annual performance targets is dependent on work performed by responsible federal agencies at NPL sites. In FY 2016, the program will continue targeting its percent construction complete measure for federal NPL sites. This measure demonstrates incremental construction progress at federal NPL sites which are not already designated sitewide construction complete. The measure is based on the average of three specific factors: 1) operable unit (OU) percent complete; 2) total cleanup actions percent complete; and 3) duration of cleanup actions percent complete (national cumulative).

Work under this program also supports performance results in the Superfund Remedial program and can be found in the Eight-Year Performance Array in the Program Performance and Assessment Tab under Goal 3, Objective 3.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$544.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$3,391.0 / -1.0 FTE) This net program change increases essential core program resources to enable the EPA's ability to meet statutory CERCLA obligations; to ensure protectiveness of human health and the environment; and to work collaboratively with

states and other federal agencies at NPL sites, such as working on cleanup schedules established under site-specific FFAs and reviewing RODs. The increase in funding was offset by a decrease in FTE.

- (+\$1,205.0) This program change increases resources to provide technical assistance to other federal agencies and states, as requested, at non-NPL federal facilities.

Statutory Authority:

Comprehensive Environmental Response, Compensation and Liability Act, as amended, 42 United States Code 9601 et seq. – Section 120; the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 United States Code 6901 et seq. – Section 7003; and the Defense Base Closure and Realignment Acts of 1988, 1990, 1992, 1994, and 2004 as amended by the National Defense Authorization Acts and the Base Closure Community Redevelopment and Homeless Assistance Act.

Superfund: Remedial

Program Area: Superfund Cleanup

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Restore Land; Preserve Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Hazardous Substance Superfund</i>	\$555,236.7	\$501,000.0	\$539,618.0	\$38,618.0
Total Budget Authority / Obligations	\$555,236.7	\$501,000.0	\$539,618.0	\$38,618.0
Total Workyears	924.4	862.0	868.8	6.8

Program Project Description:

The EPA’s Superfund Remedial program protects the American public and the nation’s resources by assessing and cleaning up some of the most contaminated sites in the United States. The program conducts long term cleanup work, as well as oversees response work conducted by potentially responsible parties (PRPs). Cleanup activities include characterizing the degree and scope of contamination from releases of pollutants and contaminants to the environment, developing cleanup strategies, designing and constructing remedies, conducting long-term operation, and monitoring of certain remedies.

As a result, communities are safer, healthier, and realize economic benefits. These actions protect and restore the nation’s precious and limited groundwater and surface water resources. In addition, some construction activities help to build, replace, or sustain critical components of the nation’s infrastructure (i.e., water, transportation, and recreation). The human health benefits of remediating contaminated sites include reduced mortality and reduced morbidity risk from asthma, cancer, birth defects, adverse reproductive or developmental disorders, and other illnesses or injuries. Ecosystems also are improved by addressing pollutants from contaminated sites and protecting drinking water supplies and/or fishery habitats.

Superfund sites exist in thousands of communities across the United States, ranging from remote rural areas to large urban settings. The size and complexity of Superfund sites vary widely. A site may have a very small footprint or may cover thousands of acres (land and/or water bodies). Contaminated media at a Superfund site might include soils, buildings, sediments, surface water, air, and/or groundwater. Cost and time to clean up Superfund sites vary widely depending on the degree, type, and location of contamination. On average, a typical National Priorities List (NPL) site will cost around \$15 million; however some will cost more than \$100 million by the time they are completed. A few sites, such as the Passaic River and the Bunker Hill sites, have the potential to exceed \$500 million. Cleanup actions can take from a few months for a relatively straight-forward soil excavation or capping remedy to multiple decades for complex, area-wide groundwater, sediment, or mining remedies.

Program Outcomes:

Population Impacts:

To help describe who benefits from the Superfund Remedial program's cleanup work, the EPA collected data on the population living within three miles of Superfund final and proposed NPL sites, as well as non-NPL Superfund Alternative Approach (SAA) Agreement sites. In looking at the census data the agency found that approximately 49 million people live within three miles of a Superfund site (roughly 16 percent of the U.S. population and 16 percent of all children in the U.S. under the age of five).²¹ Compared to the general public, communities located near Superfund sites are more likely to be minority, lower income, and linguistically isolated, and less likely to have a high school education. As a result, these communities may have fewer resources with which to address concerns about their health and environment.

Human Health Benefits:

In a recent study, Columbia University, Massachusetts Institute of Technology (MIT), and UC Berkeley researchers found that Superfund cleanups reduce the incidence of congenital anomalies by roughly 20-25 percent among infants born to mothers living within 2,000 meters of a site.²² The human health threats addressed by Superfund cleanups include lead contamination of residential soil, which can cause elevated blood levels in children. At the Tar Creek Site in Oklahoma, before cleanup, 21.7 percent of children less than 6 years old, the most vulnerable life stage, had significant elevated blood lead concentrations. After critical pieces of the remediation were conducted, including replacing contaminated soil, providing health education to the community, and relocating residents, blood lead concentrations have been reduced so that no children have blood lead above the target level.

Economic Benefits:

Working collaboratively with partners across the country, the EPA engages communities in site cleanup decisions, fosters employment opportunities in communities during and after remedy construction, preserves green infrastructure, promotes the redevelopment of blighted areas, and protects human health and the environment. At more than 850 Superfund sites, the EPA's engagement has facilitated their productive reuse. The new, continued, or planned reuse at these sites has benefited communities through local job creation, green space preservation, property value increases, local tax base enhancement, and quality of life improvements. A peer-reviewed study found that residential property values within three miles of Superfund sites increased 18.6-24.5 percent when sites were cleaned up and deleted from the NPL.²³ Additionally, data collected in 2014 for 450 of the 850 sites where reuse is occurring indicate that site cleanups can be a significant economic driver. Those sites now have approximately 3,470 operating

²¹ Data collected includes: site information as of the end of FY 2011 from CERCLIS and census data from the 2007-2011 American Community Survey. Data from FY 2011 was chosen to correspond most closely to the census data in the 2007-2011 American Community Survey. In FY 2011 this included 1,393 Superfund sites. A circular site boundary, equal to the site acreage, was modeled around the latitude/longitude for each site and then a 3 mile buffer ring was placed around the site boundary. Census data was then collected for each block group whose centroid fell within the three mile area.

²² Currie, Janet, Michael Greenstone, and Enrico Moretti. 2011. "Superfund Cleanups and Infant Health." *American Economic Review*, 101(3): 435-41.

²³ Gamper-Rabindran, Shanti and Christopher Timmins. 2013. "Does cleanup of hazardous waste sites raise housing values? Evidence of spatially localized benefits," *Journal of Environmental Economics and Management* 65(3): 345-360, <http://dx.doi.org/10.1016/j.jeem.2012.12.001>.

businesses that generate annual sales over \$65.1 billion and employ over 89,000 people, who earn a combined income of \$6.0 billion.²⁴

Advancing Sustainability:

The Superfund Remedial program integrates sustainability into its day-to-day operations at cleanup sites. Through the implementation of actions under the 2010 Green Remediation Strategy, the Remedial program considers the protection of natural resources and environmental media (energy, water, materials, ecosystems, land, and air) in its response actions. For example, at Lawrence Aviation Industries, Port Jefferson Station, New York a 1.5 ton geothermal heat exchange system was integrated into the water treatment process at two groundwater treatment plants, as well as building heating. This green remediation practice avoids 6,000-7,000 kWh of grid-supplied electricity at each plant every year by allowing the ground below and around the treatment building to serve as the structure's heat source in winter and heat sink in summer, offsetting an estimated 4.1 to 4.8 metric tons of carbon dioxide (equivalent).

Ecological reuse returns polluted or otherwise disturbed lands to a functioning and sustainable use by increasing or improving habitat for plants and animals. Returning contaminated sites to beneficial use allows local communities to reclaim lost land, and it also may increase property values and tax base, protect open space, provide wildlife habitat, contribute to efforts to address climate change, sequester carbon, reduce wind and water erosion, protect water resources, create green spaces and corridors, and improve communities by removing stigma associated with prior waste sites. There are 130 of proposed, final and deleted NPL-only sites in continued or actual ecological reuse. A good example of the ecological benefits of Superfund cleanups is the California Gulch site in Leadville, Colorado recently designated as a “Colorado Gold Medal Trout Water.”²⁵

Mitigating Climate Change:

Ecological reuse also addresses climate change priorities. When organic soil amendments are used for remediation and ecological reuse, one of the associated benefits is terrestrial carbon sequestration, which slows the effect of climate change. The Superfund Remedial program conducted research at three sites (Leadville, Colorado; Stafford, Virginia; Sharon, Pennsylvania) to measure the amount of carbon sequestered due to the EPA’s remediation and revitalization efforts using soil amendments. Results of this field research revealed that: 169-218 metric tons CO₂/acre is sequestered at Leadville; 57-99 metric tons CO₂/acre is sequestered at Stafford; and 2.5 metric tons CO₂/acre is sequestered at Sharon. Because there are hundreds of thousands of acres of contaminated and degraded mine land that could be remediated, re-vegetated, and revitalized using soil amendments, Superfund has a significant opportunity to contribute to climate change mitigation through our cleanup activities. In addition, EPA will also evaluate the potential to promote the health of honey bees and other pollinators at Superfund sites as part of its response to the President’s 2014 memorandum on this topic²⁶.

²⁴ For more information on Redevelopment Economics and in depth case studies please use the link below.

<http://www.epa.gov/superfund/programs/recycle/economicimpacts.html>.

²⁵ For more information on the California Gulch site please use the link:

<http://www.epa.gov/superfund/programs/recycle/info/cal-gulch.html>.

²⁶ For more information on the President’s memorandum please use the link: <http://www.whitehouse.gov/the-press-office/2014/06/20/presidential-memorandum-creating-federal-strategy-promote-health-honey-b>.

Adapting to Climate Change:

The Superfund Remedial program recognizes that remedies can be vulnerable to climate change effects and is, therefore, undertaking a series of actions under the umbrella of the EPA Climate Change Adaptation Plan. The goal of the plan is to ensure we can adapt our remedies and operations as needed to continue meeting the EPA’s mission of protecting human health and the environment in the face of climate change effects. Efforts seek to integrate climate change vulnerability analyses and adaptation throughout the Superfund cleanup process, including feasibility studies, remedial designs and remedy performance reviews. For more information about the Superfund Remedial program, please refer to <http://www.epa.gov/superfund>.

FY 2016 Activities and Performance Plan:

In FY 2016, the Superfund Remedial program’s top priority remains protecting the American public by reducing risk to human health and the environment. The EPA continues to place a priority on achieving its goals for the two key environmental indicators, Human Exposures Under Control (HEUC) and Groundwater Migration Under Control (GMUC). While continuing to rely on the agency’s Enforcement First approach to encourage potentially responsible parties (PRPs) to conduct and/or pay for cleanups, the Superfund Remedial program will focus on completing ongoing projects and maximizing the use of site-specific special account resources.²⁷ The agency also will emphasize cleaning up sites to foster site reuse, which reflects the high priority that the EPA places on land revitalization. The Remedial program will continue to conduct optimization activities at all stages of site cleanup and continue to implement the technical and program management improvements recommended in the Superfund Program Review so they are incorporated into the normal business practices of the program.

The FY 2016 Superfund Remedial program request represents an increase of \$38.6 million and an increase of 6.8 FTE from the FY 2015 Enacted Budget. The requested increase provides critical resources to further the agency’s ability to continue essential ongoing fund-financed projects, maximize the preparation of “shovel ready” projects, and provide funding (thus reducing the backlog) for new construction projects.

Performance Results for Four Primary Stages of the Superfund Remedial Program:

This section discusses the performance results for each stage of the Superfund Remedial program.

1) Site Assessment & NPL Additions

The site assessment component of the Superfund Remedial program performs the critical function of screening sites for contamination and developing the most appropriate approach for cleanup. In FY 2016, the Remedial program expects to perform 750 remedial site assessments, of which approximately one-half will be conducted by states and tribes through cooperative agreement funding.

At the beginning of FY 2016, the EPA expects that approximately 1,900 sites will need initial or additional assessment and, based on recent trends, the EPA expects 300 new sites will be

²⁷ Special account resources are funds EPA receives from PRPs through settlements and must be used site-specifically.

submitted to the Remedial Assessment program by citizens, states, tribes, other federal agencies, and other sources over the course of the year. Based on historical evidence, the EPA expects the following results from its expected completion of 750 remedial assessments in FY 2016. The NPL, including current sites on the NPL and sites that have been deleted, totals 1,707 sites. Additionally, the EPA is also tracking progress at 69 Superfund Alternative Agreement sites. The agency estimates that it will add between 10 and 20 sites to the NPL in FY 2016.

Remedial Assessment Results	Estimated Distribution of FY 2016 Accomplishments*
Sites directed to states/tribes for any further attention	68%
Site needs more complex assessment	28%
Site needs remedial study/cleanup via the NPL or other cleanup approach	4%

* Percentages are based on FY2014 accomplishment results as of December 18, 2014.

The EPA will continue to increase public access to assessment information in FY 2016. This will include enhanced access to performance data so the public can better understand what assessment work has been completed and what is still needed, as well as adding transparency to the EPA decision-making process within the remedial site assessment program. In addition, an EPA, state, and Tribal site assessment workload coordination cost savings guide is being developed under the Superfund Program Review to prevent duplication of efforts.

In order to reflect the science that has evolved over the past two decades to help protect public health, in FY 2016 the EPA will continue to pursue incorporating the subsurface vapor intrusion exposure pathway into agency site assessment guidance and expects to propose revisions to the Hazard Ranking System (HRS). For more information on the Superfund remedial assessment process, please refer to http://www.epa.gov/superfund/programs/npl_hrs/siteasmt.htm

2) *Site Characterization and Remedy Selection*

In FY 2016, the EPA will continue to focus on completing existing work and starting new Fund-Lead Remedial Investigation/Feasibility Study (RI/FS) actions.

Remedial Investigations/Feasibility Studies	Fiscal Year Actuals/Estimates		
	FY 2014	FY 2015 Est.	FY 2016 Est.
RI/FS Ongoing Projects (EPA)	228	228-231	225-231
RI/FS Ongoing Projects (PRP)	231	231-234	228-234
Total Ongoing Projects	459	459-465	453-465
RI/FS Starts (EPA)	20	15-20	15-20
RI/FS Starts (PRP)	14	15-20	15-20
Total RI/FS Starts	34	30-40	30-40
RODs/ROD Amendments (EPA/PRP)	35*	30-35*	35-40*

*Does not include Federal Facilities RODs and ROD Amendments.

3) Remedial Design and Construction

In FY 2016, the EPA also will focus on completing existing Remedial Design (RD) work and starting new Fund-Lead RD actions.

Remedial Design	Fiscal Year Actuals/Estimates		
	FY 2014	FY 2015 Est.	FY 2016 Est.
RD Ongoing Projects (EPA)	111	106	96
RD Ongoing Projects (PRP)	109	99	84
Total RD Ongoing Projects	220	205	180
RD Starts (EPA)	25	20-25	20-25
RD Starts (PRP)	18	15-20	15-20
Total RD Starts	43	35-45	35-45
RD Completions (EPA)	27	25-30	30-35
RD Completions (PRP)	27	25-30	30-35
Total RD Completions	54	50-60	60-70

In FY 2016, the EPA will continue to focus on completing ongoing construction projects and starting new construction projects. The Remedial program estimates the EPA will accomplish 105 (including federal facility-lead) Remedial Action (RA) project completions in FY 2016. The RA completion measure augments the long-standing site-wide construction completion measure as an interim measure of progress toward making sites ready for reuse and achieving long term cleanup goals. In FY 2016, the EPA will work to achieve site-wide construction completion at 13 sites, including federal facility-lead sites. As of end of FY 2014, the cumulative total of NPL sites that achieved construction complete is 1,164.

Remedial Action (RA) and Construction Completion (CC)	Fiscal Year Actuals/Estimates		
	FY 2014	FY 2015 Est.	FY 2016 Est.
RA Ongoing Projects (EPA)	156	150-160	140-150
RA Ongoing Projects (PRP)	257	252	242
Total RA Ongoing Projects	413	402-412	382-392
RA Starts (EPA)	38	TBD	TBD
RA Starts (PRP)	28	25-30	25-30
Total RA Starts	66	TBD	TBD
RA Completions (EPA)	27	25-30	30-35
RA Completions (PRP)	35	30-35	35-40
Total RA Completions	62*	55-65*	65-75*
Construction Completions (CC)	8	13	13

*Does not include Federal Facilities RA Completions.

4) Post-Construction (Five Year Reviews and Site Deletions)

During FY 2016, the EPA plans to conduct approximately 245 Five-Year Reviews (FYRs) at sites with waste left in place above levels that allow for unlimited use and unrestricted exposure. FYRs are used to evaluate the implementation and performance of a remedy to determine whether the remedy remains protective of human health and the environment.

The Remedial program will encourage regional offices to work with states and other federal agencies, as appropriate, to delete sites or parts of sites from the NPL where sites have met the statutory requirements for deletions.

Post-Construction	Fiscal Year Actuals/Estimates		
	FY 2014	FY 2015 Est.	FY 2016 Est.
Five Year Review Completions (EPA/ PRP)	207*	205*	245*
NPL Partial Deletions	4	3-5	3-5
NPL Final Deletions	14	10-15	10-15

*Does not include Federal Facilities Five Year Review Completions.

Environmental Indicators

In FY 2016, the agency plans to achieve control of all identified unacceptable human exposures at 9 additional sites, bringing the program’s cumulative total of HEUC sites to 1,447. Additionally, the agency expects to achieve GMUC at 13 additional sites, bringing the program’s cumulative total to 1,149 sites.

In earlier years, the program routinely exceeded the annual HEUC target. Recently, this achievement has become more challenging. The universe of sites from which accomplishments can be drawn is smaller because over the past ten years the program has been making very good progress at moving sites into the Under Control category. Further, many of the sites that are in the Not Under Control category are large, complex cleanups, which often necessitate years of cleanup. In addition, factors such as contamination discovered during cleanup, emerging environmental issues such as vapor intrusion, new and more stringent cleanup standards (e.g. dioxin, TCE), can cause sites to move out of the Under Control category or delay progress in achieving Under Control.

Cumulative Number of Superfund Sites with Human Exposure Under Control from FY2002 to FY2016

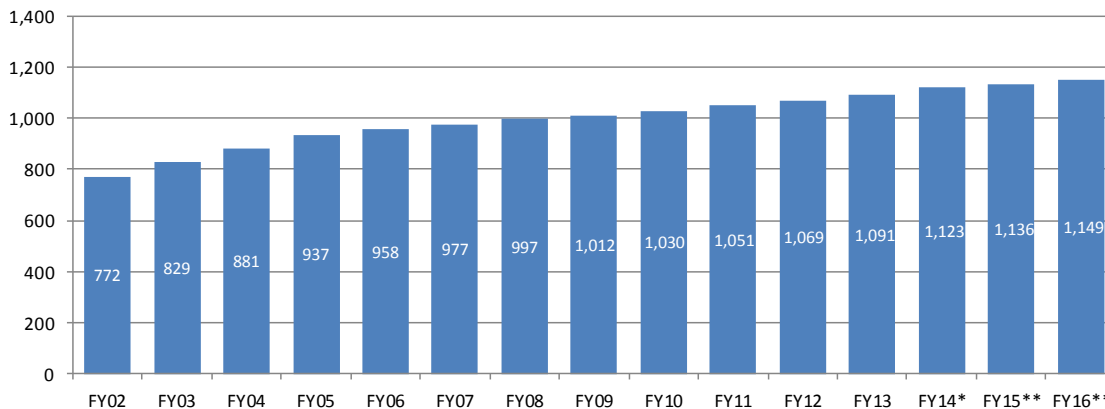


*The Human Exposure accomplishment increased significantly from FY13 to FY14 because Superfund added into the Human Exposure reporting universe Superfund Alternative Agreement Sites as well as sites that were recently listed on the NPL but were not yet in the reporting universe.

**Estimated Achievements for FY 2015 and FY 2016 based on current goals

As with the human exposure targets, in earlier years, the program routinely exceeded the annual GMUC target. Recently, progress has been more challenging for the same reasons listed above with HEUC. Further, at many of the remaining sites the program is dealing with very large areas of contamination and multiple plumes. These sites often need many years of cleanup before the agency can declare that all plumes are stabilized site wide.

Cumulative Number of Superfund Sites with Groundwater Migration Under Control from FY 2002 to FY 2016



*The Groundwater Migration accomplishment increased significantly from FY13 to FY14 because Superfund added into the Groundwater Migration reporting universe Superfund Alternative Agreement Sites as well as sites that were recently listed on the NPL but were not yet in the reporting universe.

**Estimated Achievements for FY 2015 and FY 2016 based on current goals

Site Reuse

In FY 2016, the EPA expects 45 additional sites will qualify as Site-wide Ready for Anticipated Use (SWRAU), bringing the program's cumulative total to 797 sites that are ready for reuse. To be eligible for the SWRAU performance measure, a site must be site-wide construction complete, all cleanup goals that affect future land use must be achieved, the site must be designated as human exposure under control, and all required institutional controls must be put in place. Accomplishment of this measure continues to be challenging. Prior year budget and FTE reductions, complexity of cleanups at remaining sites that have not yet achieved SWRAU, and constraints on state and local governments' abilities to implement institutional controls affect the universe of available sites eligible to achieve SWRAU in a given year. As a result, the EPA lowered the original FY 2015 target for this measure from 55 to 45 sites and will retain this target for FY 2016.

Programmatic Efficiencies:

In November 2012, the Superfund Remedial program initiated a comprehensive review of its operations to identify options to maintain its effectiveness in achieving its core mission of protecting human health and the environment in the face of diminishing funding availability. The

review resulted in an action plan finalized in November 2013, which includes 49 distinct actions or recommendations.²⁸

The EPA has completed seven of the 49 recommendations, including: 1) issuing guidance on the development of groundwater remedy completion strategies at sites; 2) improving the deletion process; 3) evaluating remedial design/remedial action process improvements; 4) exploring methods to streamline the FYR process by conducting pilots; 5) improving conciseness in preparation of the Hazard Ranking System (HRS) documentation records; 6) deploying the Superfund Enterprise Management System (SEMS); and 7) issuing guidance memorandums on the use of special accounts. The EPA will continue implementing the remaining recommendations from the Superfund Program Review (SPR) action plan and incorporate these changes into its business practices during FY 2016.

Performance Targets:

Measure	(115) Number of Superfund remedial site assessments completed.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			900	900	650	700	850	750	Assessments
Actual			1,020	1,151	772	794			

Measure	(141) Annual number of Superfund sites with remedy construction completed.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	20	22	22	22	19	15	13	13	Completions
Actual	20	18	22	22	14	8			

Measure	(151) Number of Superfund sites with human exposures under control.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	10	10	10	10	10	10	9	9	Sites
Actual	11	18	10	13	14	9			

Measure	(152) Number of Superfund sites with contaminated groundwater migration under control.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	15	15	15	15	15	15	13	13	Sites
Actual	16	18	21	18	18	11			

Measure	(170) Number of remedial action projects completed at Superfund NPL sites.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			103	130	115	115	105	105	Completions
Actual			132	142	121	115			

Measure	(S10) Number of Superfund sites ready for anticipated use site-wide.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	65	65	65	65	60	55	45	45	Sites
Actual	66	66	65	66	56	45			

²⁸ For more information please use the link: [http://www.epa.gov/superfund/cleanup/pdfs/Final SPR Action Plan-11_26_2013_\(2\).pdf](http://www.epa.gov/superfund/cleanup/pdfs/Final_SPR_Action_Plan-11_26_2013_(2).pdf).

The Superfund Remedial program reports its activities and progress toward long-term human health and environmental protection via six performance measures that encompass the entire cleanup process. Recent resource constraints have made it difficult for EPA to meet prior year targets. The increase requested in FY 2016 will be used to mitigate this downward trajectory and restore the EPA's ability to meet some of its targets. In FY 2016, the program is reducing the target for only one of its six performance measures from FY 2015 levels. The remedial site assessment completions target will decrease to 750 (from 850 in FY 2015) as the EPA completes its assessment of older sites in the Superfund inventory where EPA's larger regions significantly reduced this backlog. The targets for remedial action completions, construction completions, human exposure under control, groundwater migration under control and site-wide ready for anticipated use will remain at FY 2015 levels at 105, 13, 9, 13, and 45 respectively.

Performance goals for the Superfund Federal Facilities Response program are a component of the Superfund Remedial program's measures that are also found in the Eight-Year Performance Array under Goal 3.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$4,615.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$34,003.0 / +6.8 FTE) This program change increases critical resources to further the agency's ability to continue essential ongoing fund-financed projects, maximize the preparation of "shovel ready" projects, and provide funding (thus reducing the backlog) for new construction projects.

Statutory Authority:

The Superfund program was established by, and operates pursuant to, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. sec. 9601 et seq., as amended by the Superfund Amendment and Reauthorization Act of 1986, and Executive Order 12580 (January 23, 1987).

Superfund Special Accounts

Background

Section 122(b)(3) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) authorizes the EPA to retain and use funds received pursuant to a settlement agreement with a Potentially Responsible Party (PRP) to carry out the purpose of that agreement. The EPA retains such funds in special accounts, which are sub-accounts in the Superfund Trust Fund. Pursuant to the specific agreements, which typically take the form of an Administrative Order on Consent or Consent Decree, the EPA uses special account funds to finance site-specific CERCLA response actions at the site for which the account was established. Through the use of special accounts, the EPA pursues its “enforcement first” policy – ensuring responsible parties pay for cleanup – so that appropriated resources from the Superfund Trust Fund are conserved for sites where no viable or liable PRPs can be identified. Both special account resources and appropriated resources are critical to the Superfund program.

Special account funds are used to conduct many different site-specific CERCLA response actions, including, but not limited to, investigations to determine the extent of contamination and appropriate remedy needed, construction and implementation of the remedy, enforcement activities, and post-construction activities. The EPA also may provide special account funds as an incentive to another PRP who agrees to perform additional work beyond the PRP’s fair share at the site, which the EPA might otherwise have to conduct using appropriated resources. Because response actions may take many years, the full use of special account funds also may take many years. Pursuant to the agreement, once site-specific work is complete and site risks are addressed, special account funds may be used to reimburse the EPA for site-specific costs incurred using appropriated resources (i.e., reclassification), allowing the latter resources to be allocated to other sites. Any remaining special account funds are generally transferred to the Superfund Trust Fund, where they are available for future appropriation by Congress to further support cleanup at other sites.

FY 2014 Special Account Activity

Since the inception of special accounts through the end of FY 2014, the EPA has collected over \$4.5 billion from PRPs and earned approximately \$428.3 million in interest. In addition, the EPA has transferred over \$26.8 million to the Superfund Trust Fund. As of the end of FY 2014, over \$2.7 billion has been disbursed for site response actions and \$300.4 million has been obligated but not yet disbursed. Of the special account funds made available through the end of FY 2014, approximately 61 percent have been disbursed or obligated for response actions at sites.

In FY 2014, the EPA disbursed over \$191 million from special accounts for response work at more than 675 sites. The cumulative amount available in special accounts increased for the first time in three years, from \$1.69 billion available at the end of FY 2013 to \$1.95 billion available at the end of FY 2014. The EPA is carefully managing those funds that remain available for site response work as of October 1, 2014.

The remaining balance of more than \$1.9 billion does not represent the level of annual funding available to the EPA from special accounts since the funds collected under settlements are intended to finance future cleanup work at particular sites over the long term. The time frame for use of special account funds at a specific site depends on several factors, including the specific requirements for fund use set forth in the agreement the funds were collected under, the stage of site cleanup, the viability of other responsible parties to conduct site cleanup, and the nature of the site contamination, among other things. As of the end of FY 2014, the EPA developed multi-year plans to utilize the available balance and will continue to fully plan 100 percent of the funds received to conduct site-specific response activities, or reclassify and/or transfer excess funds to the Superfund Trust Fund for use at other Superfund sites.

The vast majority of open accounts (78 percent) have an available balance of less than \$1 million and collectively represent only 10 percent of the total resources available, while 4 percent of open accounts have approximately 62 percent of the total resources available. Through its enforcement efforts, the agency continues to receive site-specific settlement funds that are placed in special accounts each year, so progress on actual obligation and disbursement of funds may not be apparent upon review solely of the cumulative available balance, as current special account balances are used while additional funds may be deposited. In FY 2014, the EPA received more than \$505 million for deposit into special accounts, more than double the amounts received in FY 2012 (\$221 million) and FY 2013 (\$176 million) for site-specific response work. The increase in receipts deposited in FY 2014 is largely due to more than \$248 million deposited in an account for the New Bedford Harbor site in Massachusetts and \$58.7 million deposited in an account for the Bunker Hill site in Washington. The funds deposited in these two accounts represent more than 60 percent of all special account deposits in FY 2014, and these funds will be spent for site response work to occur over multiple years. These funds allow work to continue at these sites for investigations and remedial construction to protect human health and the environment for communities affected by these sites, while at the same time freeing up appropriated dollars for use at other sites without viable or liable PRPs. The EPA will continue to monitor the use of special account funds to ensure we are conducting cleanups as quickly and efficiently as possible.

Exhibit 1 illustrates the cumulative status of open and closed accounts, FY 2014 program activity, and planned multi-year uses of the available balance. Exhibit 2 provides the prior year (FY 2014), current year (FY 2015), and estimated future budget year (FY 2016) activity for special accounts. Exhibit 3 provides prior year data (FY 2014) by EPA region to exhibit the geographic use of the funds.

**Exhibit 1: Summary of FY 2014 Special Account Transactions
and Cumulative Multi-Year Plans for Using Available Special Account Funds**

Account Status¹	Number of Accounts
Cumulative Open	1,005
Cumulative Closed	254
FY 2014 Special Account Activity	\$ in Thousands
Beginning Available Balance	\$1,690,335.6
FY 2014 Activities	
+ Receipts	\$505,523.3
- Transfers to Superfund Trust Fund (Receipt Adjustment)	(\$3,067.7)
+ Net Interest Earned	\$15,442.4
- Net Change in Unliquidated Obligations	(\$30,359.2)
- Disbursements - For EPA Incurred Costs	(\$184,552.7)
- Disbursements - For Work Party Reimbursements under Final Settlements	(\$6,882.1)
- Reclassifications	(\$34,790.9)
End of Fiscal Year (EOFY) Available Balance ²	\$1,951,648.8
Multi-Year Plans for EOFY 2014 Available Balance³	\$ in Thousands
2014 EOFY Available Balance	\$1,951,648.8
- Estimates for Future EPA Site Activities based on Current Site Plans ⁴	\$1,799,892.2
- Estimates for Potential Disbursement to Work Parties Identified in Final Settlements ⁵	\$46,883.2
- Estimates for Reclassifications for FYs 2015-2017 ⁶	\$89,786.7
- Estimates for Transfers to Trust Fund for FYs 2015-2017 ⁶	\$13,736.3
- Available Balance to be Planned for Site-Specific Response ⁷	\$1,350.4
¹ FY 2014 data is as of 10/01/2014. The Beginning Available Balance is as of 10/01/2013.	
² Numbers may not add due to rounding.	
³ Planning data are as of November 2014 in reference to special account available balances as of 10/01/2014.	
⁴ "Estimates for Future EPA Site Activities" includes all response actions that the EPA may conduct or oversee in the future, such as removal, remedial, enforcement, post-construction activities as well as allocation of funds to facilitate a settlement to encourage PRPs to perform the cleanup. Planning data are multi-year and cannot be used for annual comparisons.	
⁵ "Estimates for Potential Disbursements to Work Parties Identified in Finalized Settlements" includes those funds that have already been designated in a settlement document, such as a Consent Decree or Administrative Order on Consent, to be available to a PRP for reimbursements but that have not yet been obligated.	
⁶ "Reclassifications" and "Transfers to the Trust Fund" are estimated for three FYs only. These amounts are only estimates and may change as the EPA determines what funds are needed to complete site-specific response activities.	
⁷ These include resources received by the EPA at the end of the fiscal year and will be assigned for site-specific response activities.	

Exhibit 2: Actual and Estimated Special Account Transactions FY 2014 – FY 2016

\$ in Thousands

	FY 2014 actual	FY 2015 estimate	FY 2016 estimate
	\$ in Thousands		
Beginning Available Balance	\$1,690,335.6	\$1,951,648.8	\$1,915,748.8
Receipts ¹	\$505,523.3	\$200,000.0	\$200,000.0
Transfers to Trust Fund (Receipt Adjustment) ²	(\$3,067.7)	(\$2,500.0)	(\$2,500.0)
Net Interest Earned ³	\$15,442.4	\$30,000.0	\$36,000.0
Net Obligations ^{2,4}	(\$221,794.0)	(\$221,400.0)	(\$221,400.0)
Reclassifications ²	(\$34,790.9)	(\$42,000.0)	(\$42,000.0)
End of Year Available Balance ⁵	\$1,951,648.8	\$1,915,748.8	\$1,885,848.8
¹ The FY 2015 and FY 2016 estimates do not include anticipated receipts of approximately \$1.4 billion to be deposited in site-specific special accounts from the settlement with a subsidiary for Anadarko Petroleum as the court proceedings to approve and finalize the settlement have not concluded.			
² The estimates for Transfers to Trust Fund, Net Obligations, and Reclassifications are based on a 3 year historical average.			
³ Net Interest Earned projections for FY 2015 and FY 2016 are estimated utilizing economic assumptions for the FY 2016 President's Budget. The interest earned on special accounts is subject to sequester under the Budget Control Act of 2011 (Pub. L. No. 112-25). Impacts of sequester are included in the net interest earned reported in FY 2014 actuals but not included in the FY 2015 or FY 2016 estimates.			
⁴ Net Obligations reflect special account funds no longer available for obligation, excluding reclassifications and receipts transferred to the Trust Fund.			
⁵ Numbers may not add due to rounding.			

Exhibit 3: FY 2014 Special Account Transactions by EPA Region

\$ in Thousands

	Beginning Available Balance	Receipts	Transfers to Trust Fund (Receipt Adjustment)	Net Interest Earned	Net Obligations	Reclassifications	End of Year Available Balance²
Region 1	\$124,846.0	\$265,330.9	\$0.0	\$2,042.3	\$79,051.3	\$2,392.7	\$310,775.2
Region 2	\$204,690.1	\$29,758.4	\$2.1	\$1,992.2	\$22,545.0	\$5,110.7	\$208,782.9
Region 3	\$100,524.4	\$13,866.2	\$2,677.9	\$765.7	\$7,351.4	\$505.7	\$104,621.3
Region 4	\$69,414.3	\$5,286.8	\$153.4	\$487.8	\$2,265.2	\$7,236.3	\$65,534.0
Region 5	\$227,434.9	\$27,649.8	\$141.0	\$1,846.1	\$16,686.6	\$1,944.1	\$238,159.2
Region 6	\$54,938.3	\$16,189.9	\$0.6	\$500.0	\$1,790.6	\$2,505.9	\$67,331.1
Region 7	\$222,385.4	\$3,118.2	\$0.0	\$1,796.4	\$7,713.5	\$15,095.4	\$204,491.0
Region 8	\$188,046.6	\$34,012.4	\$0.2	\$1,776.7	\$29,797.9	\$0.0	\$194,037.6
Region 9	\$309,373.8	\$23,686.5	\$92.5	\$2,548.2	\$25,385.3	\$0.0	\$310,130.7
Region 10	\$188,681.7	\$86,624.3	\$0.0	\$1,687.0	\$29,207.1	\$0.0	\$247,785.9
Total	\$1,690,335.6	\$505,523.3	\$3,067.7	\$15,442.4	\$221,794.0	\$34,790.9	\$1,951,648.8
¹ FY 2014 data is as of 10/01/2014. The Beginning Available Balance is as of 10/01/2013.							
² Numbers may not add due to rounding.							

**Environmental Protection Agency
2016 Annual Performance Plan and Congressional Justification**

Table of Contents - Leaking Underground Storage Tanks

Resource Summary Table	699
Program Area: Enforcement	701
Civil Enforcement	702
Program Area: Operations and Administration.....	704
Facilities Infrastructure and Operations	705
Acquisition Management	707
Central Planning, Budgeting, and Finance	708
Program Area: Underground Storage Tanks (LUST / UST)	710
LUST / UST	711
LUST Cooperative Agreements.....	716
LUST Prevention	720
Program Area: Research: Sustainable Communities.....	726
Research: Sustainable and Healthy Communities	727

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

**APPROPRIATION: Leaking Underground Storage Tanks
Resource Summary Table
(Dollars in Thousands)**

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Leaking Underground Storage Tanks				
Budget Authority	\$95,673.8	\$91,941.0	\$95,326.0	\$3,385.0
Total Workyears	53.1	54.5	54.1	-0.4

Bill Language: LUST

For necessary expenses to carry out leaking underground storage tank cleanup activities authorized by subtitle I of the Solid Waste Disposal Act, \$95,326,000, to remain available until expended, of which \$66,467,000 shall be for carrying out leaking underground storage tank cleanup activities authorized by section 9003(h) of the Solid Waste Disposal Act; \$28,859,000 shall be for carrying out the other provisions of the Solid Waste Disposal Act specified in section 9508(c) of the Internal Revenue Code: Provided, That the Administrator is authorized to use appropriations made available under this heading to implement section 9013 of the Solid Waste Disposal Act to provide financial assistance to federally recognized Indian tribes for the development and implementation of programs to manage underground storage tanks. (Department of the Interior, Environment, and Related Agencies Appropriations Act, 2015.)

**Program Projects in LUST
(Dollars in Thousands)**

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Enforcement				
Civil Enforcement	\$642.4	\$620.0	\$627.0	\$7.0
Operations and Administration				
Central Planning, Budgeting, and Finance	\$677.0	\$421.0	\$440.0	\$19.0
Facilities Infrastructure and Operations	\$797.4	\$792.0	\$1,103.0	\$311.0
Acquisition Management	\$147.4	\$139.0	\$138.0	(\$1.0)
Subtotal, Operations and Administration	\$1,621.8	\$1,352.0	\$1,681.0	\$329.0
Underground Storage Tanks (LUST / UST)				
LUST / UST	\$10,031.9	\$9,240.0	\$9,409.0	\$169.0
LUST Cooperative Agreements	\$56,874.7	\$55,040.0	\$54,402.0	(\$638.0)
LUST Prevention	\$26,175.3	\$25,369.0	\$28,859.0	\$3,490.0

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Subtotal, Underground Storage Tanks (LUST / UST)	\$93,081.9	\$89,649.0	\$92,670.0	\$3,021.0
Research: Sustainable Communities				
Research: Sustainable and Healthy Communities	\$327.7	\$320.0	\$348.0	\$28.0
Subtotal, Research: Sustainable and Healthy Communities	\$327.7	\$320.0	\$348.0	\$28.0
TOTAL, EPA	\$95,673.8	\$91,941.0	\$95,326.0	\$3,385.0

Program Area: Enforcement

Civil Enforcement

Program Area: Enforcement

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inland Oil Spill Programs	\$2,396.9	\$2,413.0	\$2,424.0	\$11.0
Environmental Program & Management	\$173,835.8	\$170,854.0	\$185,756.0	\$14,902.0
<i>Leaking Underground Storage Tanks</i>	<i>\$642.4</i>	<i>\$620.0</i>	<i>\$627.0</i>	<i>\$7.0</i>
Total Budget Authority / Obligations	\$176,875.1	\$173,887.0	\$188,807.0	\$14,920.0
Total Workyears	1,096.6	1,083.1	1,082.4	-0.7

Program Project Description:

The EPA’s Civil Enforcement program’s goal is to assure compliance with the nation’s environmental laws to protect human health and the environment. The program collaborates with the Department of Justice, states, local agencies, and Tribal governments to ensure consistent and fair enforcement of all environmental laws and regulations. The program seeks to address violations that threaten communities, level the economic playing field by ensuring that violators do not realize an economic benefit from noncompliance, and deter future violations. The Civil Enforcement program develops, litigates, and settles administrative and civil judicial cases against serious violators of environmental laws. Compliance with environmental laws improves when regulated entities, federal agencies, and the public have easy access to tools that help them understand these laws and find efficient, cost-effective means for putting them into practice.

To protect our nation’s groundwater and drinking water from petroleum releases from Underground Storage Tanks (UST), the Civil Enforcement program provides guidance, technical assistance, and training to promote and enforce cleanups at sites with UST systems.¹ The Enforcement and Compliance Assurance program uses its Leaking Underground Storage Tanks (LUST) resources to oversee cleanups by responsible parties; enforce cleanups by recalcitrant parties. The EPA may take enforcement action against owners and/or operators of LUSTs to achieve timely and protective cleanup of contamination. The EPA takes enforcement action in response to an UST release if the release poses a major public health or environmental emergency, the state or the owner/operator is unable to respond, or the state requests assistance from the EPA.

¹ For more information refer to: www.epa.gov/swerust1/cat/index.htm.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to work with states to prioritize their state-specific LUST enforcement goals for cleanup. The agency and states also will use innovative approaches, along with outreach and education tools, to help achieve LUST cleanups.

Performance Targets:

Work under this program also supports performance results in the Civil Enforcement program under the Environmental Programs and Management (EPM) appropriation and can be found in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$43.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$36.0) This program change reflects a small decrease in program support, including training and supplies.

Statutory Authority:

Pollution Prevention Act; Community Environmental Response Facilitation Act; National Environmental Policy Act; Atomic Energy Act; Uranium Mill Tailings Radiation Control Act; Resource Conservation and Recovery Act.

Program Area: Operations and Administration

Facilities Infrastructure and Operations
Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inland Oil Spill Programs	\$456.9	\$584.0	\$1,762.0	\$1,178.0
Environmental Program & Management	\$305,366.3	\$310,399.0	\$312,180.0	\$1,781.0
Science & Technology	\$75,013.3	\$68,339.0	\$79,170.0	\$10,831.0
<i>Leaking Underground Storage Tanks</i>	<i>\$797.4</i>	<i>\$792.0</i>	<i>\$1,103.0</i>	<i>\$311.0</i>
Building and Facilities	\$23,532.6	\$35,641.0	\$43,632.0	\$7,991.0
Hazardous Substance Superfund	\$70,445.1	\$75,055.0	\$78,160.0	\$3,105.0
Total Budget Authority / Obligations	\$475,611.6	\$490,810.0	\$516,007.0	\$25,197.0
Total Workyears	355.4	367.4	359.5	-7.9

Program Project Description:

The EPA's Facilities Infrastructure and Operations program in the Leaking Underground Storage Tank (LUST) appropriation supports rent and transit subsidy accounts as well as Regional Offices facilities' management services. Funding is allocated among major appropriations for the agency.

FY 2016 Activities and Performance Plan:

The agency will continue to conduct rent reviews and verify monthly billing statements for its lease agreements with the General Services Administration and other private landlords. For FY 2016, the EPA is requesting a total of \$0.92 million for rent in the LUST appropriation.

Performance Targets:

Work under this program supports the performance measures in the Facilities Infrastructure and Operations program under the EPM appropriation. These measures can also be found in the Eight Year Performance Array in the Program Performance and Assessment section. Information on the agency's energy/GHG reduction initiative can be found in the agency's Strategic Sustainability Performance Plan at http://www.epa.gov/greeningepa/documents/sspp2013_508.pdf.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$303.0) This net change to fixed and other costs is an increase due to the recalculation of rent and transit subsidy.
- (+\$8.0) This program change increases funding to support basic operations and maintenance costs for the agency's facilities nationwide.

Statutory Authority:

Federal Property and Administration Services Act; Public Building Act; Annual Appropriations Acts; CWA; CAA; D.C. Recycling Act of 1988; Executive Orders 10577 and 12598; Homeland Security Presidential Decision Directive 63 (Critical Infrastructure Protection).

Acquisition Management

Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$34,537.6	\$30,761.0	\$37,974.0	\$7,213.0
<i>Leaking Underground Storage Tanks</i>	<i>\$147.4</i>	<i>\$139.0</i>	<i>\$138.0</i>	<i>(\$1.0)</i>
Hazardous Substance Superfund	\$23,499.7	\$21,989.0	\$23,923.0	\$1,934.0
Total Budget Authority / Obligations	\$58,184.7	\$52,889.0	\$62,035.0	\$9,146.0
Total Workyears	315.8	308.7	304.5	-4.2

Program Project Description:

Leaking Underground Storage Tanks (LUST) resources in the Acquisition Management program support the agency's contract activities.

FY 2016 Activities and Performance Plan:

Acquisition Management resources in LUST support the training and development of the EPA's acquisition workforce and information technology needs.

Performance Targets:

Work under this program supports the performance results in the Acquisition Management program under the EPM appropriation and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$1.0) This program change reflects a reduction in workforce support resources in the Acquisition Management program.

Statutory Authority:

The EPA's Environmental Statutes; Annual Appropriations Acts; FAR; contract law. Office of Federal Procurement Policy Act, as amended (41 U.S.C. 401 et seq.).

Central Planning, Budgeting, and Finance
Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$73,721.3	\$72,851.0	\$76,057.0	\$3,206.0
<i>Leaking Underground Storage Tanks</i>	<i>\$677.0</i>	<i>\$421.0</i>	<i>\$440.0</i>	<i>\$19.0</i>
Hazardous Substance Superfund	\$21,723.1	\$22,352.0	\$24,277.0	\$1,925.0
Total Budget Authority / Obligations	\$96,121.4	\$95,624.0	\$100,774.0	\$5,150.0
Total Workyears	486.4	499.2	493.4	-5.8

Program Project Description:

The EPA's financial management community maintains a strong partnership with the Leaking Underground Storage Tanks (LUST) program. Activities under the Central Planning, Budgeting and Finance program support the management of integrated planning, budgeting, financial management, performance and accountability processes, and systems to ensure effective stewardship of LUST resources. This includes developing, managing, and supporting a performance management system consistent with the Government Performance and Results Modernization Act for the agency that involves strategic planning and accountability for environmental, fiscal, and managerial results; providing policy, systems, training, reports, and oversight essential for the financial operations of the EPA; managing the agencywide Working Capital Fund; providing financial payment and support services for the EPA through three finance centers, specialized fiscal and accounting services for the LUST programs; and managing the agency's annual budget process.

FY 2016 Activities and Performance Plan:

The EPA will continue to ensure sound financial and budgetary management of the LUST program through the use of routine and ad hoc analysis, statistical sampling, and other evaluation tools. Building on the work begun in FY 2014 and FY 2015, the EPA will continue to monitor and strengthen internal controls with a focus on sensitive payments and property. In addition, structured and targeted use of financial systems that include funds control and oversight of expenses in the LUST program has led to a better understanding of program impacts as well as increased efficiencies.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$21.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$2.0) This program change reflects a reduction as a result of the agency's continued efforts to streamline financial management business processes and find efficiencies across headquarters and Regional Offices.

Statutory Authority:

Annual Appropriations Act; Data Accountability and Transparency Act of 2014; Clinger-Cohen Act of 1996; Solid Waste Disposal Act, as amended by the Energy Policy Act, 42 U.S.C. 6901 et seq. Sections 9001 – 9011; Computer Security Act of 1987; E-Government Act of 2002; Electronic Freedom of Information Act of 1996; Federal Grant and Cooperative Agreement Act of 1977; Federal Activities Inventory Reform Act of 1998; Federal Acquisition Regulations, contract law and the EPA's Assistance Regulations (40 CFR Parts 30, 31, 35, 40, 45, 46, 47); Federal Managers' Financial Integrity Act of 1982; Freedom of Information Act of 1966; Government Management Reform Act of 1994; Improper Payments Information Act of 2002; Improper Payments Elimination and Recovery Act of 2010; Paperwork Reduction Act of 1995; Privacy Act of 1974; Chief Financial Officers Act of 1990; Government Performance and Results Act of 1993; The Prompt Payment Act of 1982; Title 5, U.S.C; National Defense Authorization Act.

Program Area: Underground Storage Tanks (LUST / UST)

LUST / UST

Program Area: Underground Storage Tanks (LUST / UST)
 Goal: Cleaning Up Communities and Advancing Sustainable Development
 Objective(s): Restore Land; Preserve Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Environmental Program & Management	\$11,979.2	\$11,295.0	\$11,657.0	\$362.0
<i>Leaking Underground Storage Tanks</i>	<i>\$10,031.9</i>	<i>\$9,240.0</i>	<i>\$9,409.0</i>	<i>\$169.0</i>
Total Budget Authority / Obligations	\$22,011.1	\$20,535.0	\$21,066.0	\$531.0
Total Workyears	108.4	109.5	108.1	-1.4

Program Project Description:

These funds support the EPA's staff and expenses to direct and manage the national program to clean up releases from leaking underground storage tanks (LUSTs). This work supports the EPA's cross-agency strategy of making a visible difference in communities and the people living and working near USTs across the country by working with state, Tribal, and local partners to clean up releases from underground storage tanks and protect precious water resources.

Staff and program activities provide technical support and program management for LUST cooperative agreements. The federal LUST program supports the tracking and implementation of LUST cleanup programs in states² and directly implements assessments and cleanups of petroleum contamination from underground storage tanks (USTs) in Indian country. These funds:

- Ensure program efficiency;
- Provide administrative and technical support of program activities;
- Provide leadership with respect to performance goals and financial accountability;
- Support states and tribes by funding technical studies, evaluations, and analyses (e.g., opportunities for remedy optimization or innovative and environmentally friendly approaches to corrective action, such as green remediation); forums for information exchange; and training opportunities to continually make program implementation efficient and effective; and
- Provide support and training at the national level, which helps all states and tribes by eliminating duplicative efforts across the country.

In addition, the EPA has primary responsibility for implementing the LUST program in Indian country and will use a portion of its LUST funding to assess and clean up releases from USTs. The EPA, when making decisions that may affect tribes and Indian country, and when taking action in Indian country, shall consult with those tribes under the May 2011 *EPA Policy on Consultation and Coordination with Indian Tribes*. The EPA's funding is critical to protecting

² States as referenced here also include the District of Columbia and five territories as described in the definition of state in the Solid Waste Disposal Act.

Indian country lands from leaking underground storage tanks; it is the primary source of money for these activities. With few exceptions, tribes do not have independent program resources to pay for assessing and cleaning up UST releases.

The EPA's LUST backlog study completed in FY 2012 has led the EPA to pursue several initiatives in partnerships with states and tribes that arose from the data brought to light by the study. The EPA has initiated and is continuing to pursue efforts such as providing training to the EPA, state and tribal field staff on optimizing site characterization and cleanup efforts; reviewing sites for remedy optimization; increasing the emphasis on ensuring adequate financial responsibility on the part of owners and operators; and other such strategies.

Twice each year, the EPA collects data regarding LUST performance measures and makes the data publicly available. The data include information such as the number of active and closed tanks, releases confirmed, cleanups initiated and completed, facilities in compliance with UST requirements, and inspections. The EPA compiles the data and presents it in table format for all states, territories and Indian country. See <http://www.epa.gov/oust/cat/camarchv.htm>.

FY 2016 Activities and Performance Plan:

End of year FY 2014 data show that, of the approximately 521,000 releases reported since the beginning of the UST program in 1988, approximately 447,000 (or 85.8 percent) have been cleaned up. This means approximately 74,000 releases remain that have not reached cleanup completion. In addition, even though the EPA and our partners have made major progress in reducing the number of new releases that add to this cleanup obligation, thousands of new releases are discovered each year.

While considerable progress has been made over the last ten years, much work remains. The LUST Prevention program and LUST Cleanup program have an important relationship. The fewer new releases we experience in the future because of a robust prevention program allows us to focus on existing and historic releases in the cleanup program. As the EPA has implemented improvements and increased frequency of inspections and other prevention efforts, there has also been a decrease in newly confirmed releases. The continued reduction in confirmed releases will remain a critical component in backlog reduction, but given that new releases are confirmed each year, maintaining cleanup progress is essential as well. In partnership with state and Tribal programs, strategies to reduce the number of remaining LUST sites that have not reached cleanup completion will leverage best practices and support management, guidance, and enforcement activities.

In FY 2016, the EPA will work with states to continue implementing strategies to reduce the number of sites that have not reached cleanup completion, and address new releases as they continue to be confirmed. The EPA's backlog study³ helped identify potential strategies to address the LUST sites that have not reached cleanup completion. These activities include optimizing cleanup remedies, better identifying viable responsible parties, and ensuring soundness of state funding mechanisms.

³ For additional information, refer to *The National LUST Cleanup Backlog: A Study Of Opportunities*, September 2011, <http://www.epa.gov/OUST/cat/backlog.html>.

The EPA provides national guidance on technical issues facing the LUST program. In FY 2016, the EPA will continue improving ways to characterize LUST sites that have not reached cleanup completion by providing guidance and technical support regarding cleanup approaches and technologies. The EPA will implement petroleum vapor intrusion guidance and provide training to help investigators evaluate potential risk from this exposure pathway. Additional training will include remediation process optimization, remediation evaluation model monitoring, and other corrective action courses dealing with new and improved cleanup technologies.

The EPA will monitor the soundness of financial mechanisms, in particular insurance and state cleanup funds that serve as financial assurance for LUST releases. In FY 2012, the EPA issued guidance⁴ for overseeing state funds, and in FY 2013 began a more rigorous analysis of state fund soundness. To ensure money is available for cleanups when needed, the EPA will continue regular reviews of all active state funds. The EPA is identifying funding issues and working collaboratively with states to seek ways to cover and control remediation costs.

In FY 2016, the EPA will continue improving local community engagement and stakeholder input by enhancing states' and tribes' policies and processes for public involvement. The EPA developed several helpful documents regarding community engagement in the LUST program⁵ and continues sharing with states and tribes successful practices and tools that will help tailor community engagement for specific circumstances at LUST release sites.

To address leaking underground storage tanks in Indian country, the EPA will provide support for:

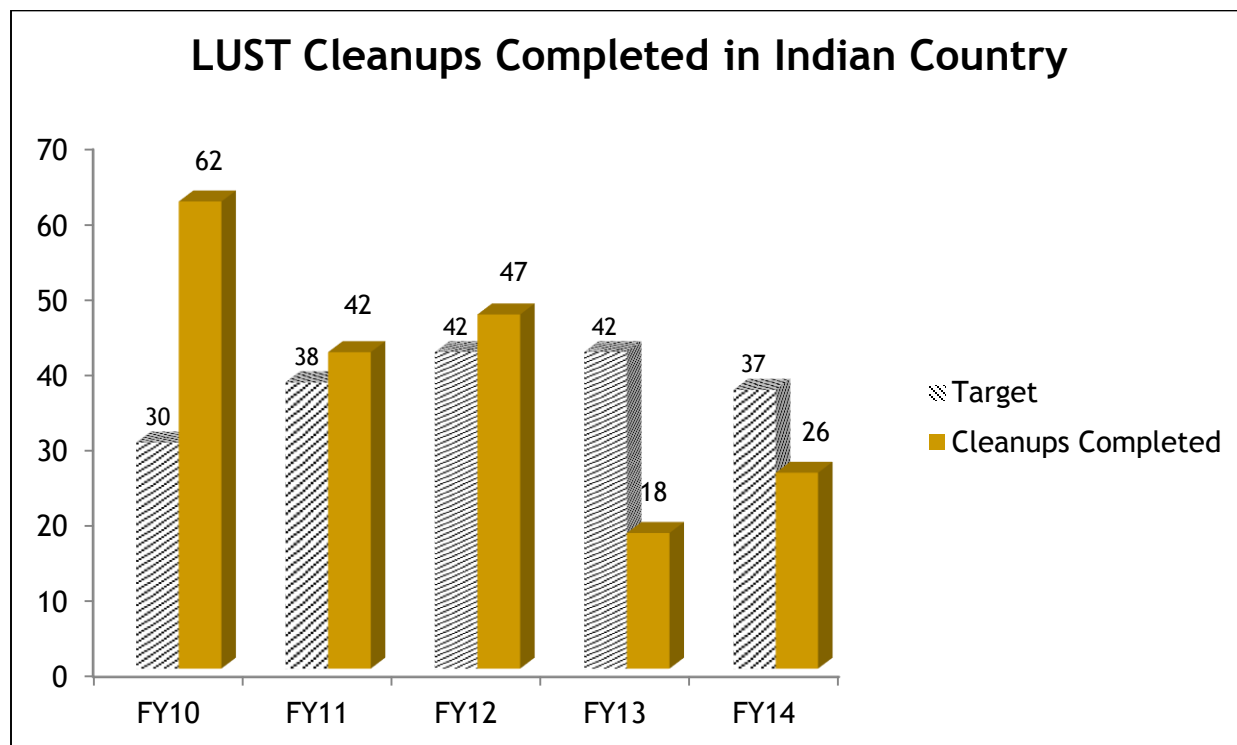
- Site assessments, investigations, and remediation of high priority sites;
- Enforcement against responsible parties;
- Cleanup of soil and groundwater;
- Alternate water supplies;
- Cost recovery against UST owners and operators;
- Technical expertise and assistance;
- Response activities;
- Oversight of responsible party lead cleanups; and
- Support and assistance to Tribal governments.

In FY 2014, the EPA completed 26 cleanups in Indian country, which is an increase from FY 2013, yet is a decrease from previous years and below the FY 2014 performance target of 37 cleanups completed. This substantial decrease reflects the impacts from declining EPA resources combined with the EPA's strategic targeting to address more complex sites. In FY 2014, the EPA's budget to clean up LUST sites in Indian country decreased by 21 percent from FY 2011. Recognizing these realities, the EPA lowered the performance targets for FY 2015 and FY 2016. While there are a number of difficult and costly LUST sites with substantial releases in Indian country, the EPA has become more vigilant about optimizing remediation plans. This increased

⁴ See *Guidance For Regional Office Review Of State Underground Storage Tanks Financial Assurance Funds*, January 2012 <http://www.epa.gov/oust/states/state-fund-soundness-guidance1-26-2012.pdf>.

⁵ For additional information, visit: <http://www.epa.gov/oust/communityengagement/index.htm>.

scrutiny adds time and more steps to the process, but will lead to more cost effective and efficient cleanups in the future.



Performance Targets:

Measure	(113) Number of LUST cleanups completed that meet risk-based standards for human exposure and groundwater migration in Indian country.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	30	30	38	42	42	37	30	26	Cleanups
Actual	49	62	42	47	18	26			

Work under this program also supports performance results in the LUST Cooperative Agreements program and is available in the Eight-Year Performance Array.

In FY 2016, the continuation of reduced resources in Tribal clean up funding will lead to fewer cleanups completed, from 30 in FY 2015 to 26 in FY 2016.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$466.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$297.0 / -0.4 FTE) This net program change decreases FTE and resources diminishing the EPA’s ability to perform cleanups of LUST sites in Indian country and to provide

subject matter and technical expertise to states and tribes who routinely ask the agency for support on technical LUST matters.

Statutory Authority:

Solid Waste Disposal Act, as amended by the Energy Policy Act, 42 United States Code 6901 et seq., Section 8001(a) and Sections 9001-9014.

LUST Cooperative Agreements

Program Area: Underground Storage Tanks (LUST / UST)

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Restore Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Leaking Underground Storage Tanks</i>	\$56,874.7	\$55,040.0	\$54,402.0	(\$638.0)
Total Budget Authority / Obligations	\$56,874.7	\$55,040.0	\$54,402.0	(\$638.0)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The EPA enters into leaking underground storage tank (LUST) cooperative agreements with states⁶ to protect human health and the environment by overseeing and cleaning up petroleum releases from underground storage tanks (USTs), as authorized under Section 9003(h) of the Solid Waste Disposal Act. States, in partnership with the EPA, assess and clean up petroleum releases from USTs. Of the LUST funds appropriated for corrective action, the EPA must distribute 80 percent to states under cooperative agreements.⁷ This work supports the EPA's cross-agency strategy of making a visible difference in communities and the people living and working near USTs across the country by working with state, Tribal, and local partners to clean up releases from underground storage tanks and protect precious water resources.

This funding supports states in managing, overseeing, and enforcing cleanups at LUST sites that have not reached cleanup completion. These activities focus on increasing the efficiency of LUST cleanups nationwide, leveraging private and state resources, and enabling community redevelopment. The EPA and state programs will consider best practices and implement strategies to reduce the number of remaining LUST sites that have not reached cleanup completion. Backlog reduction efforts will target high priority sites and examine potential economies of scale, as well as a variety of state specific initiatives including use of risk-based approaches and examination of caseloads to look for sites that are ready for closure.

The EPA's backlog study completed in FY 2012 provided significant information to characterize the national inventory of sites that have not reached cleanup completion. The EPA found that almost half of the releases were 15 years old or older, and that groundwater was contaminated at 75 percent of these sites. Even a small amount of petroleum released from an underground storage tank can contaminate groundwater, the drinking water source for many Americans. Remediating groundwater contamination is often more technically complex, takes longer, and is more expensive than remediation of soil contamination.⁸ Remediation costs average between \$100 thousand and \$400 thousand per UST release, the cost increasing with the presence of

⁶ States as referenced here also include the District of Columbia and five territories as described in the definition of state in the Solid Waste Disposal Act.

⁷ See the Energy Policy Act of 2005, <http://www.gpo.gov/fdsys/pkg/PLAW-109publ58/html/PLAW-109publ58.htm>.

⁸ See *The National LUST Cleanup Backlog: A Study Of Opportunities*, September 2011, www.epa.gov/oust/cat/backlog.html.

groundwater contamination. Potential adverse effects from chemicals such as benzene, methyl-tertiary-butyl-ether, alcohols, or lead scavengers in gasoline contribute to the cost of cleaning up these contaminants.

Twice each year, the EPA collects data regarding LUST performance measures and makes the data publicly available. The data include information such as the number of active and closed tanks, releases confirmed, cleanups initiated and completed, facilities in compliance with UST requirements, and inspections. The EPA compiles the data and presents it in table format for all states, territories and Indian country. See www.epa.gov/oust/cat/camarchv.htm.

LUST cleanup funding awarded under Section 9003(h)(7) of the Solid Waste Disposal Act is subject to an annual formula based allocation process. During FY 2012, the EPA worked in partnership with states to review and modify the existing state LUST cleanup grant allocation formula, which had been in place since the late 1990s. The EPA initiated this review to ensure the formula properly targets state program needs and best advances program priorities. The EPA examined a number of factors, including: universe of regulated tanks; number of sites awaiting corrective action; potential for groundwater contamination; minimum resources needed to support a core state LUST program; and state program authorization status. As a result of the review, the EPA changed the state grant allocation formula for FY 2013 and beyond. The EPA partially phased in these changes during FY 2013. The FY 2014 omnibus appropriation report language directed the EPA to use the previous formula in FY 2014.⁹ The EPA fully implemented the new formula in FY 2015 and will continue to do so in FY 2016.

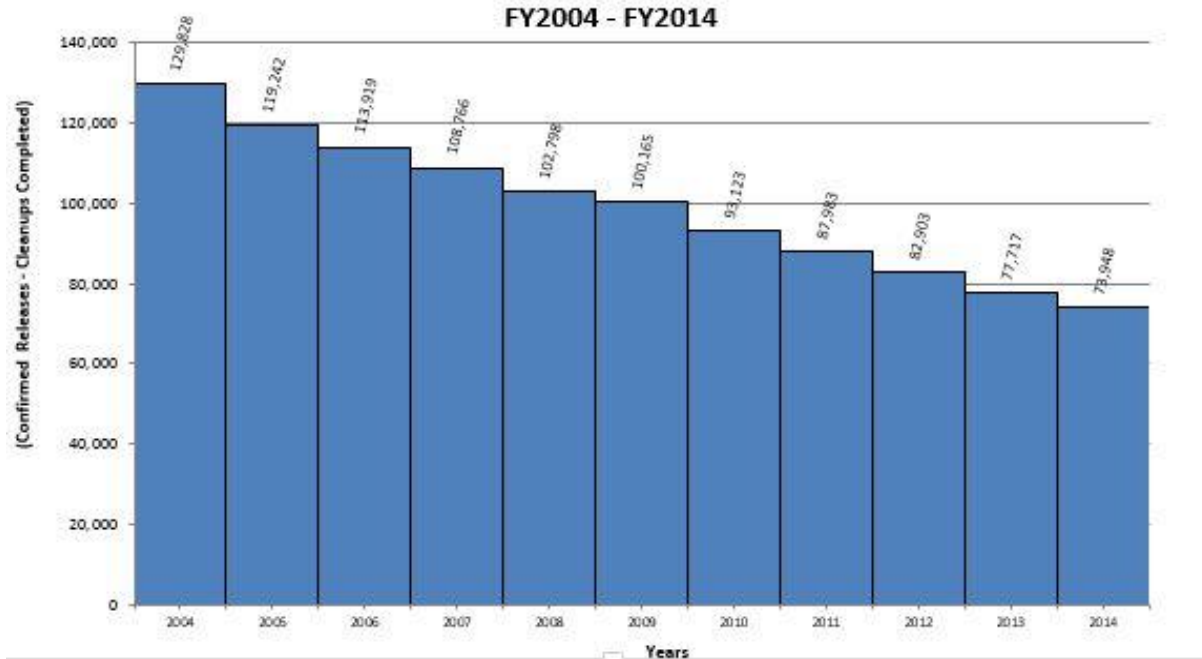
FY 2016 Activities and Performance Plan:

End of year FY 2014 data show that, of the approximately 521,000 releases reported since the beginning of the UST program in 1988, approximately 447,000 (or 85.8 percent) have been cleaned up. This means approximately 74,000 releases remain that have not reached cleanup completion. In addition, even though the EPA and our partners have made major progress in reducing the number of new releases that add to this cleanup obligation, thousands of new releases are discovered each year.

The chart below provides a history of the LUST sites that have not reached cleanup completion. It demonstrates that while considerable progress has been made over the last ten years, much work remains. The LUST Prevention program and LUST Cleanup program have an important relationship. The fewer new releases we experience in the future because of a robust prevention program allows us to focus on existing and historic releases in the cleanup program. As the EPA has implemented improvements and increased frequency of inspections and other prevention efforts, there has also been a decrease in newly confirmed releases. The continued reduction in confirmed releases will remain a critical component in backlog reduction, but given that new releases are confirmed each year, maintaining cleanup progress is essential as well. In partnership with state and Tribal programs, strategies to reduce the number of remaining LUST sites that have not reached cleanup completion will leverage best practices and support management, guidance, and enforcement activities

⁹ See the FY 2014 omnibus appropriation report page 37, <http://docs.house.gov/billsthisweek/20140113/113-HR3547-JSOM-G-L.pdf>.

**UST National Backlog
(Confirmed Releases - Cleanups Completed)**



In FY 2016, the EPA will continue to enter into cooperative agreements with states to assist in completing LUST cleanups. The EPA’s backlog study helped identify potential strategies to address the LUST sites that have not reached cleanup completion, and address new releases as they continue to be confirmed. With the goal of reducing the number of remaining LUST sites that have not reached cleanup completion, states will implement specific strategies and activities for their sites as they work to address their backlog of sites as well as new releases that are confirmed each year. Some states have already begun to see successes in reducing their backlogs through implementing specific strategies. For example, some states have taken a close look at their sites to see if some low levels of contamination could be left in place without posing unacceptable threats to human health and the environment. Other states are implementing third party oversight of cleanups, which has increased the number of sites cleaned up each year. States are evaluating the factors specific to their state and exploring strategies that address their state-specific conditions. As reported in the Association of State and Territorial Solid Waste Management Official’s *Development and Implementation of State Tanks Core Programs Report*,¹⁰ released June 2014, states spend the majority of their federal funds to oversee cleanups. Due to recent resource constraints, states have indicated that they will be challenged to continue the pace of backlog reduction.

¹⁰ For more information, see: http://www.astswmo.org/Files/Policies_and_Publications/Tanks/New_2014-06-ASTSWMO_Tanks_Core_Report_FINAL2.pdf.

Performance Targets:

Measure	(111) Percent of confirmed releases pending cleanup completion at UST facilities.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	No Target Established	No Target Established	No Target Established	No Target Established	No Target Established	15	14	13	Percent
Actual	21	19	18	16	15	14			

Measure	(112) Number of LUST cleanups completed that meet risk-based standards for human exposure and groundwater migration.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	12,250	12,250	12,250	11,250	10,100	9,000	8,600	8,600	Cleanups
Actual	12,944	11,591	11,169	10,927	11,582	10,393			

Work under this program also supports performance results in the LUST/Underground Storage Tanks program and is available in the Eight-Year Performance Array.

The EPA counts the number of completed cleanups meeting risk-based standards for human exposure and groundwater migration. For FY 2016, the EPA is setting a goal of 8,600 cleanups achieving these standards. The FY 2016 target reflects a variety of challenges including the complexity of remaining sites, an increased state workload, a decrease in available state resources, and the increasing cost of cleanups.

The EPA also measures the percent of historic LUST sites that have not reached cleanup completion. Beginning in FY 2014, the EPA set a goal of decreasing the percentage one percent each year through FY 2018. For FY 2016, the EPA is setting a goal of decreasing the percentage to 13. This decrease is in line with the percent decrease experienced over each of the last four years.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$638.0) This program change reflects a slight reduction of funds to implement cooperative agreements for LUST cleanup activities and may result in approximately 65 fewer cleanups in FY 2016. This is based on an EPA estimate that states can either directly fund or oversee approximately 100 sites for every \$1 million in grant funding. Despite this reduction, the EPA and its state partners will still be able to achieve the agency cleanup target of 8,600.

Statutory Authority:

SWDA of 1976, as amended by the Superfund Amendments and Reauthorization Act of 1986 (Subtitle I), Section 9003(h)(7).

LUST Prevention

Program Area: Underground Storage Tanks (LUST / UST)
Goal: Cleaning Up Communities and Advancing Sustainable Development
Objective(s): Preserve Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Leaking Underground Storage Tanks</i>	\$26,175.3	\$25,369.0	\$28,859.0	\$3,490.0
Total Budget Authority / Obligations	\$26,175.3	\$25,369.0	\$28,859.0	\$3,490.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

This program provides funding for grants to state¹¹ and Tribal partners to protect human health and the environment by preventing releases from underground storage tanks (USTs). This work supports the EPA's cross-agency strategy of making a visible difference in communities and the people living and working near UST sites across the country by working with state, Tribal, and local partners to prevent releases from underground storage tanks and protect precious water resources.

States rely primarily on federally funded assistance agreements to maintain inspection frequency and ensure compliance, which will help prevent future confirmed releases. States may use money from LUST assistance agreements for inspections, other release prevention and compliance assurance activities for federally-regulated USTs, and enforcement activities related to release prevention. Since about 80 percent of funding for LUST prevention assistance agreements is used for state staff salaries, this funding is critical to helping states meet the inspection and other implementation responsibilities. The EPA will continue to assist states in complying with release prevention activities authorized by the EPAct.

Preventing UST releases is more efficient and less costly than cleaning up releases after they occur. Since the beginning of the UST program, preventing UST releases has been one of the program's primary goals. Potential adverse effects from chemicals such as benzene, methyl-tertiary-butyl-ether, alcohols, or lead scavengers in gasoline and the cost to clean up these contaminants underscore the importance of preventing UST releases and complying with UST requirements.¹² Even a small amount of petroleum released from an underground storage tank can contaminate groundwater, the drinking water source for many Americans. Over the history of the UST program, there have been over 521,000 releases confirmed and thousands of new releases are discovered each year. Yet the EPA and our partners have made major progress in reducing the number of new releases.

¹¹ States as referenced here also include the District of Columbia and the five territories as described in the definition of state in the Solid Waste Disposal Act.

¹² See Title XV, Subtitle B of the Energy Policy Act of 2005.

Over the duration of the program, the EPA found that lack of proper UST system operation and maintenance is a main cause of releases.^{13,14} As a result, the EPA in FY 2012 proposed revisions to the UST regulations that address these and other important issues.¹⁵ While the agency expects to finalize the revised UST regulations in FY 2015, the EPA and the UST stakeholders will implement these new provisions in FY 2016.

Twice each year, the EPA collects data regarding UST performance measures and makes the data publicly available. The data include information such as the number of active and closed tanks, releases confirmed, cleanups initiated and completed, facilities in compliance with UST requirements, and inspections. The EPA compiles the data and presents it in table format for all states, territories and Indian country. See <http://www.epa.gov/oust/cat/camarchv.htm>.

Since 2007, the EPA has placed an increased emphasis on ensuring compliance through increased frequency of inspections and other EPCRA provisions.¹⁶ Each of the nation's 571,000 federally regulated USTs must be inspected every three years.¹⁷ During this time, compliance rates have increased and there has been a significant decrease in newly confirmed releases.

While the annual number of confirmed UST releases dropped about 10 percent from 7,570 in FY 2007 to 6,847 in FY 2014, the number of confirmed UST releases in FY 2014 was greater than in FY 2013. One state had a specific deadline in May 2014 to complete site investigations of previously suspected releases. A large number of those releases were confirmed which explains the increase in FY 2014 numbers. Confirmed releases remain low due to significant release prevention efforts, such as frequent inspections. Continued rigorous prevention and detection activities are necessary to maintain our progress in limiting future confirmed releases.

Funding for leaking underground storage tank (LUST) assistance agreements is subject to an annual formula based allocation process. During FY 2012, the EPA worked in partnership with states to review and modify the existing state LUST prevention grant allocation formula. The EPA initiated this review to ensure the formula properly targets state program needs and best advances program priorities. The EPA examined a number of factors, including universe of regulated tanks, minimum resources needed to support a core state UST program, and state program authorization status. As a result of the review, the EPA made minor changes to the formula. The EPA fully implemented the new formula in FY 2013. The FY 2014 omnibus appropriation report language directed the agency to use the previous formula in FY 2014.¹⁸ The EPA used the new formula in FY 2015 and will continue to do so in FY 2016.

¹³ Petroleum Releases at Underground Storage Tank Facilities in Florida, Peer Review Draft, US EPA/OUST, March 2005.

¹⁴ Evaluation of Releases from New and Upgraded Underground Storage Tanks, Peer Review Draft, US EPA/OUST, August 2004.

¹⁵ See <http://www.gpo.gov/fdsys/pkg/FR-2011-11-18/pdf/2011-29293.pdf>.

¹⁶ See confirmed releases and compliance rate charts in the LUST prevention program project description. For more information, see http://www.epa.gov/oust/fedlaws/epact_05.htm.

¹⁷ See <http://www.epa.gov/swerust1/cat/ca-13-34.pdf>.

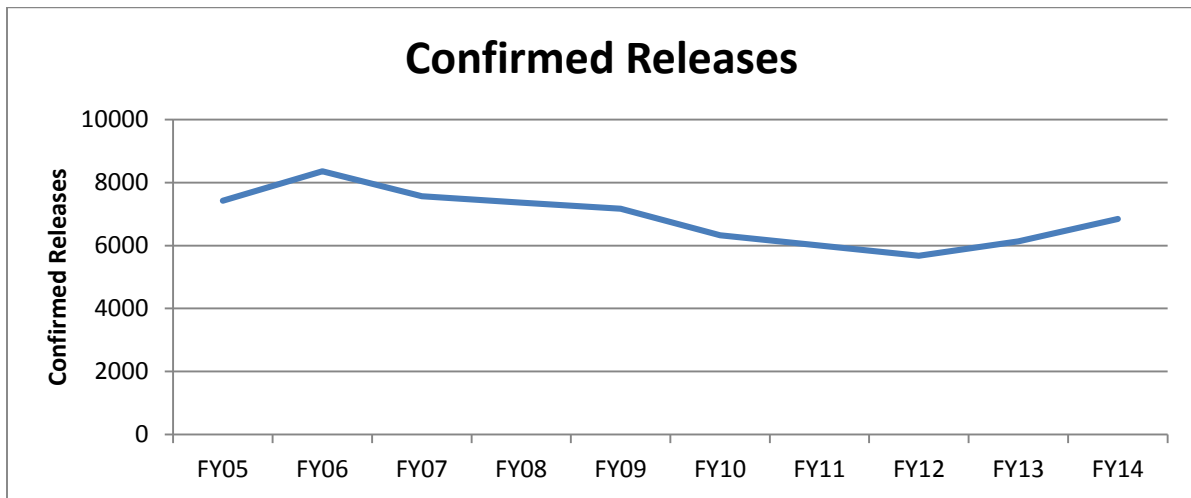
¹⁸ See the FY 2014 omnibus appropriation report page 37, <http://docs.house.gov/billsthisweek/20140113/113-HR3547-JSOM-G-L.pdf>.

FY 2016 Activities and Performance Plan:

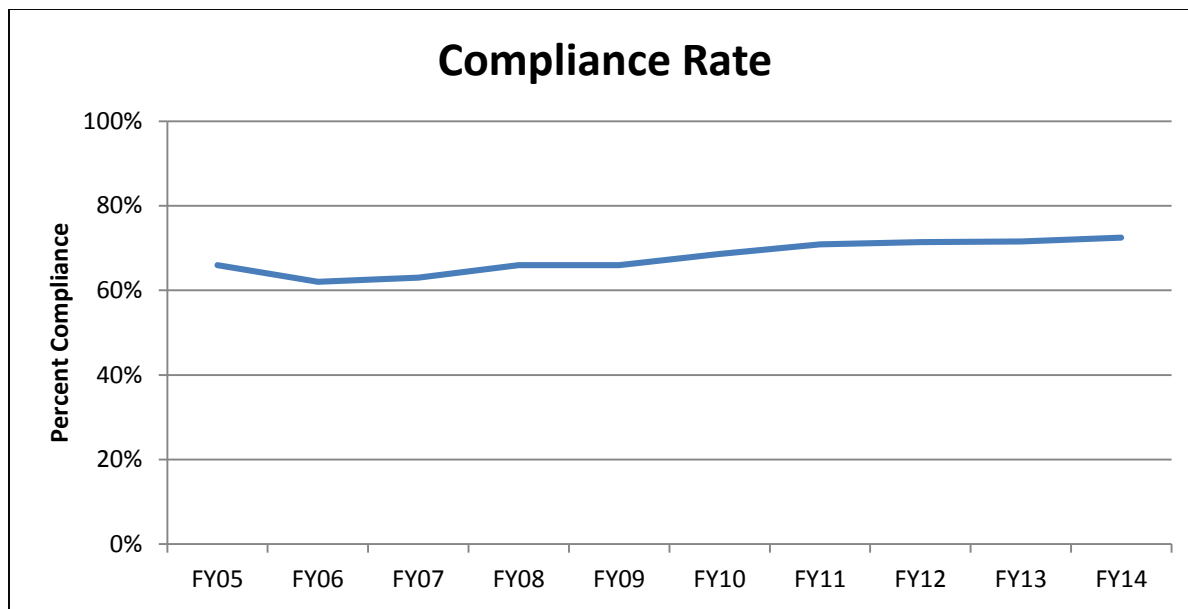
End of year FY 2014 data show:

- Releases are continuing to occur, with 6,847 reported for FY 2014.
- The program exceeded the FY 2014 performance measure of 70 percent significant operational compliance; at the end of FY 2014, 72.5 percent of the approximately 205,000 federally regulated UST facilities were in compliance. However, approximately 28 percent still need to attain and maintain compliance.

Because of the increased emphasis on inspections and release prevention requirements, the EPA since FY 2005 has consistently met our yearly goal to minimize the number of confirmed releases. Although there was a slight increase in confirmed releases for 2014 (6,847), these efforts have resulted in a general downward trend in the number of confirmed releases, as shown below.



The compliance rate chart below shows an increase in the national percent of inspected UST facilities that met release prevention and release detection requirements since implementation of the EPAct.



State Activities

As reported in the Association of State and Territorial Solid Waste Management Official's *Development and Implementation of State Tanks Core Programs Report*,¹⁹ released June 2014, states spend the majority of their federal funds on inspection and enforcement. In FY 2016, the EPA anticipates that several states will no longer be in compliance with the EPA Act provision requiring each tank to be inspected at least once every three years due to reduced state and federal program resources. The agency will work with states to support compliance with this requirement and evaluate potential resource constraints and other factors to determine how we can be as efficient and effective as possible. Major FY 2016 activities will include core program priorities required by the EPA Act and the EPA's grant guidelines, such as inspecting UST facilities to meet the three-year inspection requirement and adopting prevention measures, as described in the revised UST regulations. These activities emphasize bringing UST systems into compliance with release detection and release prevention requirements and minimizing future releases.

Lack of proper operation and maintenance of UST systems is a main cause of releases. As a result, in FY 2012 the EPA proposed UST regulations revisions that address these issues. The EPA expects to finalize the revised UST regulations in FY 2015.²⁰ Once the proposed federal UST regulations are finalized,²¹ as appropriate, states will work to update and implement corresponding state regulations.

¹⁹ See http://www.astswmo.org/Files/Policies_and_Publications/Tanks/New_2014-06-ASTSWMO_Tanks_Core_Report_FINAL2.pdf.

²⁰ See <http://www.gpo.gov/fdsys/pkg/FR-2011-11-18/pdf/2011-29293.pdf>.

²¹ To view comments on the proposed UST regulations, see <http://www.regulations.gov/#!docketDetail;dct=FR%252BPR%252BN%252BO%252BSR;rpp=10;po=0;D=EPA-HQ-UST-2011-0301>.

Tribal Activities

The EPA is responsible for implementing the UST regulations in Indian country and does so in partnership with tribes. LUST prevention assistance agreements will provide support for all aspects of the Tribal prevention programs (for example, developing compliance assistance and inspection capacity). To help prevent future releases, the EPA will work with tribes to develop their capacity to administer UST programs. This includes providing money to support training for Tribal staff, educating owners and operators in Indian country about UST requirements, and in some cases assisting Tribal staff to receive federal inspector credentials and perform inspections on behalf of the EPA. With few exceptions, tribes do not have independent UST program resources. The EPA, when making decisions that may affect tribes and Indian country, shall consult with those tribes under the May 2011 *EPA Policy on Consultation and Coordination with Indian Tribes*. Thus, the EPA’s funding is critical in advancing the UST prevention and compliance program in Indian country.

Performance Targets:

Measure	(ST1) Reduce the number of confirmed releases at UST facilities to five percent (5%) fewer than the prior year's target.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	<9,000	<9,000	<8,550	<8,120	<7,715	<7,330	<6,965	<6,615	Releases
Actual	7,168	6,328	5,998	5,674	6,128	6,847			

Measure	(ST6) Increase the percentage of UST facilities that are in significant operational compliance (SOC) with both release detection and release prevention requirements by 0.5% over the previous year's target.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	65	65.5	66	66.5	67	70	70.5	71	Percent
Actual	66	69	71	71.3	71.6	72.5			

Work under this program is available in the Eight-Year Performance Array.

The UST program has made great progress in ensuring compliance and reducing releases. Both of these measures have improved significantly since implementation of the Energy Policy Act provisions, including regular inspections. The FY 2016 performance targets for the significant operational compliance and confirmed releases measures are 71 percent and <6,615 releases, respectively.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$3,490.0) This program change increases critical resources to conduct 5,600 more inspections in FY 2016 and further the EPA, states and tribes ability to maintain inspection frequency, ensure compliance, and help prevent future confirmed releases. This increase will help support those states struggling, due to recent budget constraints, to be in compliance with the EPAct provision requiring each tank to be inspected at least once every three years.

Statutory Authority:

Solid Waste Disposal Act, as amended, 42 U.S.C. 6901 et seq. – Sections 9001-9011 and Energy Policy Act of 2005 42 USC 15801 – Section 1529.

Program Area: Research: Sustainable Communities

Research: Sustainable and Healthy Communities

Program Area: Research: Sustainable Communities

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inland Oil Spill Programs	\$285.1	\$664.0	\$513.0	(\$151.0)
Science & Technology	\$160,800.7	\$149,975.0	\$139,172.0	(\$10,803.0)
<i>Leaking Underground Storage Tanks</i>	<i>\$327.7</i>	<i>\$320.0</i>	<i>\$348.0</i>	<i>\$28.0</i>
Hazardous Substance Superfund	\$14,450.2	\$14,032.0	\$12,220.0	(\$1,812.0)
Total Budget Authority / Obligations	\$175,863.7	\$164,991.0	\$152,253.0	(\$12,738.0)
Total Workyears	510.4	503.5	478.0	-25.5

Program Project Description:

The EPA’s Sustainable and Healthy Communities (SHC) research program under the Leaking Underground Storage Tanks (LUST) appropriation provides decision-makers with tools, methods, and information to prevent and control pollution at LUST sites. Specifically, this research enables decision-makers to better:

- Assess sites and evaluate the implications of alternative remediation techniques, policies, and management actions to assess and cleanup leaks at fueling stations;
- Identify the environmental impacts and unintended consequences of existing and new biofuels available in the marketplace; and
- Protect America’s land and groundwater resources and drinking water supplies that could be impacted by the nation’s approximately 600 thousand underground fuel storage tanks.

Recent accomplishments include:

- Development of field screening methodology to assess petroleum vapor intrusion in buildings and software to assist in the implementation of Office of Solid Waste and Emergency Response’s guide for petroleum vapor intrusion, providing an economical and practical approach for site managers to address this in their site cleanup plans.
- Analysis of three national databases to assess variability in fuel composition. This study provides key information in understanding the influence of fuel composition on the fate and transport of contaminants from LUST sites and their potential impact on groundwater contamination and vapor intrusion.

FY 2016 Activities and Performance Plan:

The EPA will conduct research on contaminated sites to assist the Agency and the States in addressing the backlog of sites to be cleaned up. This research will help communities characterize and remediate contaminated sites at an accelerated pace and lower cost while reducing human health and ecological impacts. The goal of this research is to help localities and states return properties to productive use, thus supporting the agency priority of enhancing communities.

The EPA's scientists work with its Underground Storage Tanks program to deliver improved characterization and remediation methods for fuels released from leaking underground storage tanks. Research also will address contaminant plume elongation and the associated risks to communities from the many underground storage tanks at fueling stations located near residences and residential water supplies. This research will inform tool development to assist communities and states to assess remediation needed to protect local ground water resources and reduce the potential for vapor intrusion into buildings. These tools will ultimately reduce costs to communities while better protecting future drinking water resources and preventing vapor intrusion.

Performance Targets:

Work under this program also supports performance results in the Research: Sustainable and Healthy Communities under the Science and Technology appropriation.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$7.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$21.0) These resources support the development of treatment alternatives for crude oil from oil sand formations that are difficult to treat.

Statutory Authority:

Hazardous and Solid Waste Amendments of 1984; Resource Conservation and Recovery Act, Subtitle I, Leaking Underground Storage Tank (LUST) Trust Fund; Energy Policy Act of 2005; Safe Drinking Water Act, Section 1442. 42 U.S.C. 300j-1; Solid Waste and Disposal Act, Section 8001, as amended; Resource Conservation and Recovery Act of 1976, 42 U.S.C. 6901; Solid Waste Disposal Act (SWDA), 42 U.S.C. 6901 - Section 1002, 42 U.S.C. 6905 – Section 1006; Solid Waste Disposal Act, Section 8001; 42 U.S.C. 6981.

**Environmental Protection Agency
2016 Annual Performance Plan and Congressional Justification**

Table of Contents – Inland Oil Spill

Resource Summary Table	730
Program Area: Compliance	731
Compliance Monitoring	732
Program Area: Enforcement	734
Civil Enforcement	735
Program Area: Oil	738
Oil Spill: Prevention, Preparedness and Response	739
Program Area: Operations and Administration.....	744
Facilities Infrastructure and Operations.....	745
Program Area: Research: Sustainable Communities.....	747
Research: Sustainable and Healthy Communities	748

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

**APPROPRIATION: Inland Oil Spill Programs
Resource Summary Table
(Dollars in Thousands)**

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Inland Oil Spill Programs				
Budget Authority	\$16,903.1	\$18,209.0	\$23,378.0	\$5,169.0
Total Workyears	92.3	99.0	98.3	-0.7

Bill Language: Inland Oil Spill Program

For expenses necessary to carry out the Environmental Protection Agency's responsibilities under the Oil Pollution Act of 1990, \$23,378,000, to be derived from the Oil Spill Liability trust fund, to remain available until expended. (Department of the Interior, Environment, and Related Agencies Appropriations Act, 2015.)

**Program Projects in Oil Spills
(Dollars in Thousands)**

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Compliance				
Compliance Monitoring	\$143.9	\$139.0	\$155.0	\$16.0
Enforcement				
Civil Enforcement	\$2,396.9	\$2,413.0	\$2,424.0	\$11.0
Oil				
Oil Spill: Prevention, Preparedness and Response	\$13,620.3	\$14,409.0	\$18,524.0	\$4,115.0
Operations and Administration				
Facilities Infrastructure and Operations	\$456.9	\$584.0	\$1,762.0	\$1,178.0
Research: Sustainable Communities				
Research: Sustainable and Healthy Communities	\$285.1	\$664.0	\$513.0	(\$151.0)
Subtotal, Research: Sustainable and Healthy Communities	\$285.1	\$664.0	\$513.0	(\$151.0)
TOTAL, EPA	\$16,903.1	\$18,209.0	\$23,378.0	\$5,169.0

Program Area: Compliance

Compliance Monitoring

Program Area: Compliance

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Inland Oil Spill Programs</i>	<i>\$143.9</i>	<i>\$139.0</i>	<i>\$155.0</i>	<i>\$16.0</i>
Environmental Program & Management	\$101,883.5	\$101,665.0	\$122,424.0	\$20,759.0
Hazardous Substance Superfund	\$1,014.9	\$995.0	\$1,067.0	\$72.0
Total Budget Authority / Obligations	\$103,042.3	\$102,799.0	\$123,646.0	\$20,847.0
Total Workyears	533.9	536.6	539.6	3.0

Program Project Description:

The EPA's Compliance Monitoring program's goal is to assure compliance with the nation's environmental laws and protect human health and the environment through inspections and other compliance monitoring activities. Compliance monitoring is comprised of all activities that determine whether regulated entities are in compliance with applicable laws, regulations, permit conditions, and settlement agreements. In addition, the EPA conducts compliance monitoring activities to determine whether conditions exist that may present imminent and substantial threat to public health or welfare of the United States. Compliance monitoring activities include data collection, analysis, data quality review, on-site compliance inspections/evaluations, investigations, and reviews of facility records and reports.

The Clean Water Act (CWA) Section 311 compliance monitoring program for Spill Prevention, Control, and Countermeasure (SPCC) Compliance Monitoring program is designed to assure compliance with the governing spill prevention regulations. The Section 311 Facility Response Program (FRP) compliance monitoring program uses tools and strategies to verify that regulated facilities prepare for and are able to respond to any oil spill affecting the inland waters of the United States.

In FY 2014, the Office of Enforcement and Compliance Assurance (OECA) issued the *CWA/Oil Pollution Act (OAP) SPCC and FRP Training Requirements for Oil program Facility Inspectors* setting out program-specific curriculum for inspector credentials and refresher training under the EPA Order 3500. In addition, OECA worked closely with the Office of Solid Waste and Emergency Response (OSWER) to develop guidance documents that establish procedures and forms for inspectors when conducting closing conferences and communicating inspection deficiencies and government initiated unannounced exercise (GIUE) observations at FRP facilities. These two products are important in maintaining national consistency and integrity of compliance monitoring activities at facilities subject to CWA 311.

FY 2016 Activities and Performance Plan:

In FY 2016, the agency will conduct inspections and other core activities to determine regulated entities' compliance with Section 311 of the CWA. There is currently a universe of over 600,000 SPCC-regulated facilities under the EPA's jurisdiction, including a subset of roughly 4,300 facilities subject to FRP requirements. The EPA ensures that the management and oversight of the compliance monitoring program is enhanced by the exchange of information from the FRP and SPCC data systems to the EPA's Integrated Compliance Information System (ICIS). This exchange provides the EPA the opportunity to focus compliance monitoring resources on areas of highest risk, and increase transparency to the public of this enforcement and compliance data. In addition, submitting this information into ICIS electronically improves data coverage and quality. In FY 2016, having access to a complete universe of information in ICIS will support a more comprehensive analysis and better management of the FRP and SPCC programs.

Performance Targets:

This program's efforts support performance results in the Compliance Monitoring program project in the Environmental Programs and Management (EPM) appropriation and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section. Work under this program project supports the agency's Priority Goal, addressing water quality, as well as spill prevention and emergency response. The agency's Priority Goals can be found in Appendix A.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$9.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$7.0) This program change reflects an increase in resources to support oil inspections.

Statutory Authority:

Clean Water Act; Oil Pollution Act.

Program Area: Enforcement

Civil Enforcement

Program Area: Enforcement

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Inland Oil Spill Programs</i>	\$2,396.9	\$2,413.0	\$2,424.0	\$11.0
Environmental Program & Management	\$173,835.8	\$170,854.0	\$185,756.0	\$14,902.0
Leaking Underground Storage Tanks	\$642.4	\$620.0	\$627.0	\$7.0
Total Budget Authority / Obligations	\$176,875.1	\$173,887.0	\$188,807.0	\$14,920.0
Total Workyears	1,096.6	1,083.1	1,082.4	-0.7

Program Project Description:

The EPA's Civil Enforcement program's goal is to assure compliance with the nation's environmental laws to protect human health and the environment. Effective enforcement is essential to deter violations and to promote compliance with federal environmental statutes and regulations. The program collaborates with the United States Department of Justice, states, local agencies, and Tribal governments to ensure consistent and fair enforcement of environmental laws and regulations. The program seeks to focus on violations that threaten communities and level the economic playing field by ensuring that violators do not realize an economic benefit from noncompliance and deter future violations. The Civil Enforcement program develops, litigates, and settles administrative and civil judicial cases against serious violators of environmental laws.

The Civil Enforcement program's enforcement of Section 311 of the Clean Water Act (CWA), as amended by the Oil Pollution Act of 1990 (OPA) is designed to ensure compliance with the prohibition against oil and hazardous substance spills, as well as the oil spill prevention, response planning, and other regulatory requirements. The EPA's Civil Enforcement program develops policies, issues administrative orders or penalty actions, and/or refers civil judicial actions to the Department of Justice to address spills, violations of spill prevention and response planning regulations and other violations (e.g., improper dispersant use or noncompliance with orders). The program will also assist in the recovery of cleanup costs expended by the government. The program provides support for field investigations of spills, Spill Prevention, Control, and Countermeasure (SPCC), Facility Response Plan (FRP), and other requirements.

FY 2016 Activities and Performance Plan:

In FY 2016, the Civil Enforcement program will continue efforts to ensure regulatory compliance, address oil or hazardous substance spills in violation of the statute and prevent future spills. These efforts are particularly critical given the number of SPCC-regulated facilities (over 600,000 facilities) and the comparatively modest number of inspection and enforcement

personnel. Civil enforcement efforts will focus on facilities where enforcement will promote deterrence, require action to address spill causes, and confirm that spills are cleaned up and mitigated. These efforts require a large investment of enforcement resources to follow up on violations discovered during complex inspections or enforcement investigations, and can require coordination with other regulatory agencies (e.g., U.S. Coast Guard and U.S. Fish & Wildlife Service).

The EPA's response to the Deepwater Horizon oil spill will continue in FY 2016 as the agency provides primary support for the U.S. Department of Justice's civil action against BP, Anadarko, and other Deepwater Horizon oil spill responsible parties. The Department of Justice filed a complaint in December 2010 in the United States District Court on behalf of the EPA, the U.S. Coast Guard and other federal plaintiffs.¹ The EPA is actively participating in this lawsuit by responding to discovery requests, document production, requests for admission, and other litigation-related activities. When the civil trial began in February 2013, the EPA's role expanded to include direct support in the courtroom (e.g., witness preparation and reviewing depositions for cross-examination). This litigation is expected to continue into FY 2016 with the "penalty phase" of the Deepwater trial, which is scheduled to begin in January 2015. Some examples of Deepwater related activities that occurred in FY 2013 and FY 2014 include:

- The EPA obtained a record settlement of \$1 billion with Transocean for its liability for the Deepwater Horizon Gulf of Mexico oil spill.²
- Pursuant to the RESTORE Act, \$800 million of the Transocean penalty went to the Gulf Coast Restoration Trust Fund to fund programs, projects, and activities that restore and protect the environment and economy of the Gulf Coast region.³
- In FY 2014, the court issued a ruling on the first phase of trial (the "incident" phase) that BP's willful misconduct and gross negligence caused the Deepwater Horizon blowout and spill; the court has not yet ruled on the second phase of trial (the "response" phase), which will include a ruling on the quantity of oil that was spilled. Once the third "penalty" phase of the trial is complete later in FY 2015, and together with filings in the first two phases of trial, the court will assess a penalty against BP, as well as against Anadarko (a co-owner with BP of the well)."
- For more information on the EPA's response to the Deepwater spill and results to date, see: <http://www2.epa.gov/enforcement/deepwater-horizon-bp-gulf-mexico-oil-spill>.

Performance Targets:

Work under this program supports the performance measures in the Civil Enforcement program under the Environmental Programs and Management appropriation. These measures can also be found in the Eight-Year Performance Array in the Program Performance and Assessment section. Work under this program supports both the Oil Spill Liability Trust Fund as well as the Gulf Coast Restoration Trust Fund. Work under this program supports the agency's Priority Goal of addressing water quality and prevention and emergency response. A list of the agency's Priority Goals can be found in Appendix A.

¹ For more information, visit: <http://www2.epa.gov/sites/production/files/2013-10/documents/deepwater-cp121510.pdf>.

² For more information, visit: <http://www.justice.gov/opa/pr/2013/January/13-ag-004.html>.

³ For more information, visit: <http://www.restore.ms/transocean-settlement/>.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$187.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (-\$176.0) This program change reflects a reduction in litigation support for the Deepwater Horizon enforcement case and other Oil Spills enforcement activities.

Statutory Authority:

Clean Water Act; Oil Pollution Act.

Program Area: Oil

Oil Spill: Prevention, Preparedness and Response

Program Area: Oil

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Restore Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Inland Oil Spill Programs</i>	<i>\$13,620.3</i>	<i>\$14,409.0</i>	<i>\$18,524.0</i>	<i>\$4,115.0</i>
Total Budget Authority / Obligations	\$13,620.3	\$14,409.0	\$18,524.0	\$4,115.0
Total Workyears	77.7	83.8	83.1	-0.7

Program Project Description:

The EPA's Oil program protects U.S. waters by preventing, preparing for, and responding to inland oil spills. The Spill Prevention, Control and Countermeasure (SPCC) regulation and the Facility Response Plan (FRP) regulation establish the Oil Spill program prevention and preparedness regulatory framework. The EPA conducts oil spill prevention, preparedness, compliance assistance and enforcement activities associated with more than 600,000 non-transportation-related oil storage facilities that the EPA regulates through its spill prevention program. The largest oil storage facilities and refineries must prepare FRPs to identify response resources and ensure their availability in the event of a worst case discharge. FRPs establish communication procedures, address security and evacuation procedures, identify an individual with authority to implement response actions, and describe training and testing drills at the facility. The EPA's Oil program also provides resources to support response readiness. The EPA is responsible for responding to and maintaining the capability to respond to oil spills in the inland zone. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the framework for some of the EPA's preparedness responsibilities, such as the development of Area Contingency Plans (ACPs). The EPA has responsibility for Subpart J of the NCP regulation, which includes a Product Schedule that lists bioremediation, dispersants, surface washing, surface collection, and other agents that may be used to remediate oil spills. Finally, pursuant to the NCP, the EPA serves as the lead responder for cleanup of all inland zone spills, including transportation-related spills from pipelines, trucks, and other transportation systems.

As a major part of a national infrastructure designed to respond to and protect human health and the environment, this program's valuable expertise would assist in the response, preparedness and prevention activities associated with the safety and security of potential releases of chemical, oil and hazardous substances, discharges to our inland waterways, or any other type of all hazards. The program assists with multi-media training and exercise development/implementation for responders, which establish and sustain coordination with states, local communities, tribes, and other federal officials. In addition, the program may provide technical assistance support, resources and outreach to industry, states, and local communities as part of the agency's effort to ensure national safety and security for chemical and oil incidents.

The discharge of oil into U.S. waters from facilities can threaten human health and cause severe environmental damage. The Deepwater Horizon (DWH) oil spill resulted in 11 deaths,⁴ millions of barrels⁵ of spilled oil, and untold economic and environmental damage. The EPA was the lead federal inland responder for the recent large Enbridge Pipeline discharge in Marshall, Michigan. States and communities often lack the infrastructure and resources to address these national-level emergencies or to work with oil facilities to prevent these discharges from happening in the first place.

The EPA accesses the Oil Spill Liability Trust Fund, administered by the U.S. Coast Guard (USCG), to obtain reimbursement Oil funds for site-specific oil spill response activities. However, the EPA utilizes congressionally appropriated Oil funding to support oil spill response readiness in the inland zone and conduct compliance monitoring through inspections. More than 30,000 oil discharges and hazardous substance releases occur in the U.S. every year, with a large number of these spills occurring in the inland zone for which the EPA has jurisdiction. The EPA responds to about 200 of these oil spills each year. On average, one spill of greater than 100 thousand gallons occurs every month from the EPA-regulated oil storage facilities and the inland oil transportation network. For more information, refer to <http://www.epa.gov/oilspill/>.

FY 2016 Activities and Performance Plan:

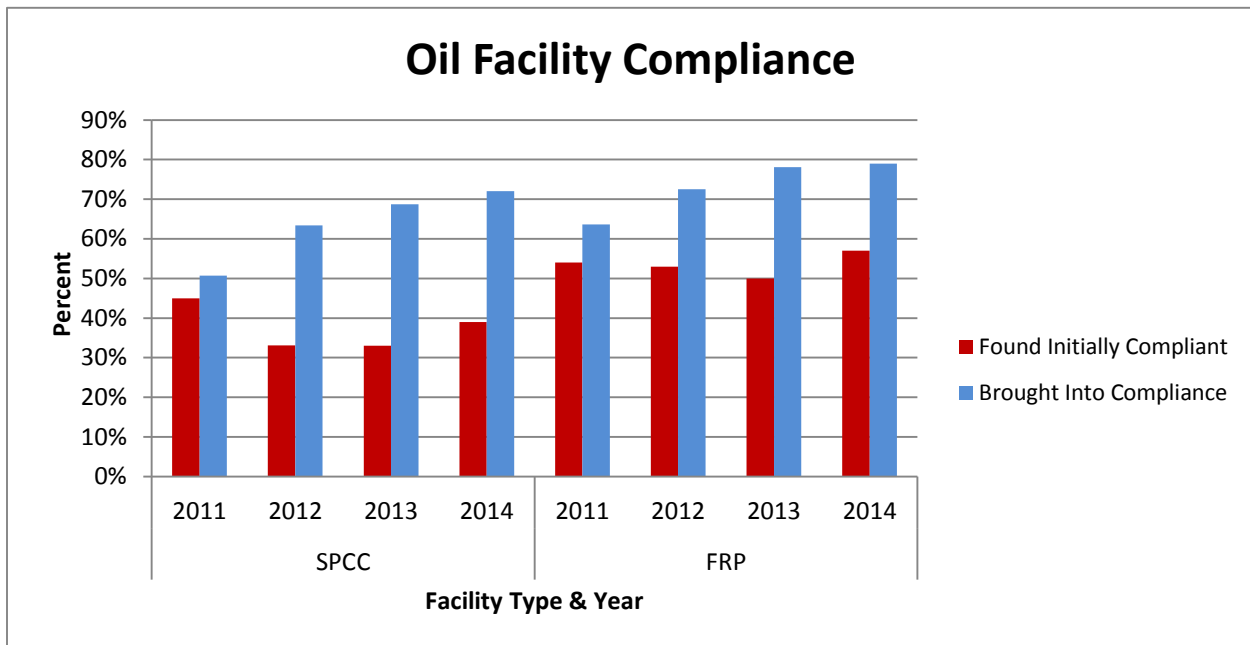
In FY 2016, the agency will continue to (1) conduct inspections to ensure appropriate and effective prevention measures (the EPA's inspectors target a portion of inspections at high-risk facilities), (2) review and approve FRPs which document facilities' plans and ability to respond to spills, (3) work to review and update oil processes and regulations to better characterize the regulated universe and address risk and (4) conduct exercises and maintain a coordinated level of preparedness.

Ensuring compliance by oil storage facilities subject to the EPA's SPCC and FRP rules is a crucial part of oil spill prevention and preparedness. The EPA believes that efforts to develop improved targeting mechanisms and to inspect facilities that pose higher risks of an oil discharge is showing positive results (see chart below).⁶

⁴ For information on the BP Webpage on Deepwater Horizon spill, visit: <http://www.bp.com/en/global/corporate/gulf-of-mexico-restoration/deepwater-horizon-accident-and-response.html>.

⁵ Complaint: United States of America vs. BP Production and Exploration Inc., and related companies: <http://www2.epa.gov/sites/production/files/2013-10/documents/deepwater-cp121510.pdf>.

⁶ Chart presents data as of end of FY2014. Data represent the percentage of facilities found initially compliant in a particular year and facilities previously found to not be in compliance that were brought into compliance out of the respective sets of facilities inspected. Therefore, the numbers do not total to 100 percent.



Following the EPA's inspection efforts, SPCC and FRP facilities that are not initially compliant are generally brought into compliance. Since FY 2010, the EPA has exceeded its yearly targets for bringing facilities into compliance, helping to improve facility oil spill preparedness and prevent oil spills. The EPA has implemented improved guidance on both high risk facility targeting and procedures to streamline inspections, both of which were developed to ensure national consistency for compliance inspections.

As a result of DWH lessons learned, the EPA is focusing on revisions to Subpart J of the NCP, which stipulates the criteria for listing and managing the use of dispersants and other chemical and biological agents used to mitigate oil spills. The EPA published a proposed rule on January 22, 2015 and will analyze comments received from stakeholders after the close of the comment period (April 22, 2015) to develop a final rule.

The EPA will continue the work with state, local, Tribal, and federal officials to strengthen ACPs and Regional Contingency Plans. The ACPs detail the responsibilities of various parties in the event of a spill/release, describe unique geographical features, sensitive ecological resources, drinking water intakes for the area covered, and identify available response equipment and its location.

The ACPs also provide key information to responders and all stakeholders regarding potential impacts and options available to On-Scene Coordinators (OSCs) and responders; this includes the highest priority resources to identify potential mechanical or chemical countermeasure response options, and other resource considerations. Additionally, the EPA and USCG will continue to collaborate with the NRT and RRTs to review and revise ACPs to reflect lessons learned during the DWH response and other relevant oil spill responses. Recent significant growth in the transportation of crude oil in the U.S. by rail, pipeline and vessels and associated accidental discharges has created an increased need for response preparedness.

Comprehensive FRP and SPCC data maintained in the National Oil Database serve as the data of record and is an important component for day-to-day management of plans, inspections/drills, and related activities. This database has streamlined the process for assisting facilities with compliance, equipping inspectors for more efficient inspection processes, and informing program management and measurement activities. Additionally, the database manages information obtained from new and historical SPCC inspections in an effort to supplement data from states and other sources about the SPCC-regulated universe in lieu of a costly and burdensome registration requirement. The EPA will continue to develop guidance for SPCC/FRP inspectors on how to properly utilize and manage this database and ensure consistent data entry.

In FY 2016, the agency plans to initiate development for electronic submission of FRPs. FRP facilities are currently required to submit their plans to the EPA Regional Offices, while SPCC facilities maintain their plans onsite.

The EPA will continue to focus inspections at high risk FRP regulated facilities. These inspections require more extensive resources due to the complex nature of the facilities and the remote location of some facilities. While the EPA cannot expect every facility every year, it will use the requested increase to supplement existing inspection resources and improve compliance outreach and technical assistance to industry while maintaining a steady level of emergency preparedness.

In supporting the agency priority to take action on chemical facility safety through accident prevention, the Oil Spill program's actions work to prevent significant damage from a non-compliant facility to waters of the U.S. or adjoining shoreline and avoiding environmental disasters.

Performance Targets:

Measure	(337) Percent of all FRP inspected facilities found to be non-compliant which are brought into compliance.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target		15	30	35	40	50	60	60	Percent
Actual		48	48	73	78	79			

Measure	(338) Percent of all Spill Prevention, Control and Countermeasure (SPCC) inspected facilities found to be non-compliant which are brought into compliance.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target		15	30	35	40	50	60	60	Percent
Actual		36	45	63	69	72			

The EPA's regulated universe includes approximately 4,400 FRP facilities and over 600,000 SPCC facilities. In FY 2016, the EPA's goal is to bring into compliance 60 percent of FRP facilities that were found to be non-compliant during FY 2010 through FY 2015 by the end of FY 2016. The EPA will emphasize emergency preparedness, particularly through the use of unannounced drills and exercises, to ensure facilities and responders can effectively implement response plans. Similar to the FRP measure mentioned above, the EPA's goal is to bring into

compliance 60 percent of SPCC facilities that were found to be non-compliant during FY 2010 through FY 2015 by the end of FY 2016.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$724.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$3,391.0 / -0.7 FTE) This net program change increases resources for oil accident prevention and preparedness activities including support for inspections at FRP (high risk) facilities, compliance and outreach activities, and further training opportunities for agency inspectors.

Statutory Authority:

Section 311 of the Federal Water Pollution Control Act (FWPCA) as amended by section 4202 of the Oil Pollution Act of 1990 (OPA). The regulatory framework includes the NCP under 40 CFR Part 300. Subpart J is a section of the NCP that stipulates the criteria for listing and managing the use of dispersants and other chemical and biological agents used to mitigate oil spills. The Oil Pollution Prevention regulation (40 CFR Part 112) includes the SPCC and FRP regulatory requirements. The purpose of the SPCC requirements is to help facilities *prevent* a discharge of oil into navigable waters or adjoining shorelines while the focus of the FRP requirements is to prepare a plan that describes equipment, personnel, and strategies to *respond* to an oil discharge to navigable waters or adjoining shorelines.

Program Area: Operations and Administration

Facilities Infrastructure and Operations
 Program Area: Operations and Administration

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Inland Oil Spill Programs</i>	<i>\$456.9</i>	<i>\$584.0</i>	<i>\$1,762.0</i>	<i>\$1,178.0</i>
Environmental Program & Management	\$305,366.3	\$310,399.0	\$312,180.0	\$1,781.0
Science & Technology	\$75,013.3	\$68,339.0	\$79,170.0	\$10,831.0
Leaking Underground Storage Tanks	\$797.4	\$792.0	\$1,103.0	\$311.0
Building and Facilities	\$23,532.6	\$35,641.0	\$43,632.0	\$7,991.0
Hazardous Substance Superfund	\$70,445.1	\$75,055.0	\$78,160.0	\$3,105.0
Total Budget Authority / Obligations	\$475,611.6	\$490,810.0	\$516,007.0	\$25,197.0
Total Workyears	355.4	367.4	359.5	-7.9

Program Project Description:

The EPA's Facilities Infrastructure and Operations Program in the Inland Oil Spill Response appropriation supports the agency's rent and transit subsidy accounts. Funding for such services is allocated among major appropriations for the agency.

FY 2016 Activities and Performance Plan:

The agency will continue to conduct rent reviews and verify monthly billing statements for its lease agreements with the General Services Administration and other private landlords. For FY 2016, the EPA is requesting \$1.69 million for rent in the Inland Oil Spills appropriation.

Performance Targets:

Work under this program supports the performance measures in the Facilities Infrastructure and Operations program under the EPM appropriation. These measures can also be found in the Eight Year Performance Array in the Program Performance and Assessment section. Information on the agency's energy/GHG reduction initiative can be found in the agency's Strategic Sustainability Performance Plan at http://www.epa.gov/greeningepa/documents/sspp2013_508.pdf.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,308.0) This change to fixed and other costs is an increase due to the recalculation of transit subsidy and rent.
- (-\$130.0) This program change reflects a reduction in operations and maintenance costs for the agency's facilities nationwide.

Statutory Authority:

Federal Property and Administration Services Act; Public Building Act; Annual Appropriations Act; CWA; CAA; D.C. Recycling Act of 1988; Executive Orders 10577 and 12598; Department of Justice United States Marshals Service, Vulnerability Assessment of Federal Facilities Report; Presidential Decision Directive 63 (Critical Infrastructure Protection).

Program Area: Research: Sustainable Communities

Research: Sustainable and Healthy Communities

Program Area: Research: Sustainable Communities

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Inland Oil Spill Programs</i>	<i>\$285.1</i>	<i>\$664.0</i>	<i>\$513.0</i>	<i>(\$151.0)</i>
Science & Technology	\$160,800.7	\$149,975.0	\$139,172.0	(\$10,803.0)
Leaking Underground Storage Tanks	\$327.7	\$320.0	\$348.0	\$28.0
Hazardous Substance Superfund	\$14,450.2	\$14,032.0	\$12,220.0	(\$1,812.0)
Total Budget Authority / Obligations	\$175,863.7	\$164,991.0	\$152,253.0	(\$12,738.0)
Total Workyears	510.4	503.5	478.0	-25.5

Program Project Description:

The EPA is the lead Federal on-scene coordinator for inland oil spills and provides technical assistance, when needed, for coastal spills. The EPA is therefore charged with responsibilities for oil spill preparedness and response and associated research. EPA's research, planned in concert with our partner agencies (U.S. Coast Guard, Department of the Interior, Department of Transportation, and Department of Commerce) supports EPA's lead role in developing protocols for testing spill response products and agents.

The Sustainable and Healthy Communities (SHC) research program for inland oil spills, funded through the Oil Spill Liability Trust Fund⁷, provides decision-makers with analysis and tools to protect human and ecosystem health from the negative impacts of oil spills. These decision-makers include Federal partner agencies, EPA Program and Regional offices, as well as State and local officials.

Supporting local officials in their response to a spill is another way the EPA is making a visible difference in communities. As a result of this research, oil spill responders will be able to make better decisions on approaches and methods to reduce the spread, and the impact of coastal spills, inland oil spills, including pipeline and railway spills.

In support of these response efforts, the EPA conducts research to develop and evaluate response approaches involving dispersants, bioremediation, and other additives, and assesses impacts to surface water and groundwater, especially as they affect drinking water supplies. This research also supports the development of protocols to evaluate spill countermeasure products for the National Contingency Plan (NCP) Product Schedule (<http://www2.epa.gov/emergency-response/national-contingency-plan-subpart-j>). Other agencies address booms, skimmers, and other engineering responses.

⁷ http://www.uscg.mil/ccs/npfc/About_NPFC/osltf.asp.

Recent accomplishments include:

Research is being completed on a solidifier protocol to determine how effective such products are in responding to oil spills on navigable waters. This research will enable the Office of Solid Waste and Emergency Response (OSWER) to list oil spill countermeasure products on the NCP Product Schedule, which is used nation-wide by emergency responders and federal agencies to respond to oil spills.

Additionally, research is being completed on the biodegradation of crude oil in the presence of dispersants. Biodegradation research for different dispersants (JD2000, Corexit 9500) and for different oils (Alaska Endicott crude, southern Louisiana crude, the heavier refined IFO120) provided OSWER with important information on the biodegradability of surfactants used in dispersing oil during a spill. EPA's research results will inform decision makers on how long surfactant chemicals can potentially persist in the environment after use in responding to an oil spill, thus supporting the agencies goal of protecting communities. OSWER and the Regions rely on this research to provide testing procedures that inform cleanup decisions during an emergency spill response.

FY 2016 Activities and Performance Plan:

In FY 2016, The EPA will continue to develop or revise protocols to test oil spill control agents or products for listing on the National Contingency Plan (NCP) Product Schedule and will conduct other research, as needed by EPA's Emergency Management Program. In addition, the agency will continue to conduct studies on the effectiveness of bioremediation of petroleum-based oil, vegetable oil, and biodiesel.

The EPA plans to conduct research on dispersants' performance and behavior in deep water and arctic spills. This dispersant research will be conducted in collaboration with the Department of the Interior's Bureau of Safety and Environmental Enforcement (BSEE) and Canada's Department of Fisheries and Oceans.

The SHC research program's expertise in remediation of spills and ecology, combined with our ability to utilize other research program expertise in eco-toxicology, enabled the EPA to respond to the needs of the Gulf Coast communities quickly and effectively during the Deepwater Horizon oil spill response. Additionally, remediation approaches will address pipeline and railway spills to address potential impacts to communities and their environmental resources

Performance Targets:

Resources in this program support the performance measures included in the Science and Technology Sustainable and Healthy Communities narrative.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$5.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.

- (-\$156.0) This program change reflects a reduction to research resources supporting the remediation of crude oil spills.

Statutory Authority:

Oil Pollution Act, 33 U.S.C. §2701, et seq.; Clean Water Act (CWA), §311, 33 U.S.C. §1321.

**Environmental Protection Agency
2016 Annual Performance Plan and Congressional Justification**

Table of Contents - State and Tribal Assistance Grants

Resource Summary Table	752
Program Area: Categorical Grants.....	756
Categorical Grant: Beaches Protection	757
Categorical Grant: Brownfields	759
Categorical Grant: Lead.....	762
Categorical Grant: Environmental Information	764
Categorical Grant: Hazardous Waste Financial Assistance.....	768
Categorical Grant: Nonpoint Source (Sec. 319)	773
Categorical Grant: Pesticides Enforcement	777
Categorical Grant: Pesticides Program Implementation.....	779
Categorical Grant: Pollution Control (Sec. 106).....	783
Categorical Grant: Pollution Prevention.....	788
Categorical Grant: Public Water System Supervision (PWSS).....	790
Categorical Grant: Radon	794
Categorical Grant: State and Local Air Quality Management.....	796
Categorical Grant: Toxics Substances Compliance	800
Categorical Grant: Tribal Air Quality Management.....	802
Categorical Grant: Tribal General Assistance Program.....	804
Categorical Grant: Underground Injection Control (UIC).....	807
Categorical Grant: Underground Storage Tanks.....	810
Categorical Grant: Wetlands Program Development	813
Program Area: State and Tribal Assistance Grants (STAG)	815
Infrastructure Assistance: Clean Water SRF	816
Infrastructure Assistance: Drinking Water SRF	820
Infrastructure Assistance: Alaska Native Villages	826
Brownfields Projects.....	830
Diesel Emissions Reduction Grant Program.....	836
Infrastructure Assistance: Mexico Border	838
Targeted Airshed Grants	842

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

**APPROPRIATION: State and Tribal Assistance Grants
Resource Summary Table
(Dollars in Thousands)**

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
State and Tribal Assistance Grants				
Budget Authority	\$3,642,271.5	\$3,545,161.0	\$3,599,400.0	\$54,239.0
Total Workyears	0.5	0.0	0.0	0.0

Bill Language: STAG

For environmental programs and infrastructure assistance, including capitalization grants for State revolving funds and performance partnership grants, \$3,599,400,000, to remain available until expended, of which—(1) \$1,116,000,000 shall be for making capitalization grants for the Clean Water State Revolving Funds under title VI of the Federal Water Pollution Control Act; and of which \$1,186,000,000 shall be for making capitalization grants for the Drinking Water State Revolving Funds under section 1452 of the Safe Drinking Water Act: Provided, That for fiscal year 2016, to the extent there are sufficient eligible project applications and projects are consistent with State Intended Use Plans, not less than 20 percent of the funds made available under this title to each State for Clean Water State Revolving Fund capitalization grants shall be used by the State for projects to address green infrastructure or other environmentally innovative activities: Provided further, That for fiscal year 2016, funds made available under this title to each State for Drinking Water State Revolving Fund capitalization grants may, at the discretion of each State, be used for projects to address green infrastructure, water or energy efficiency improvements, or other environmentally innovative activities: Provided further, That notwithstanding section 603(d)(7) of the Federal Water Pollution Control Act, the limitation on the amounts in a State water pollution control revolving fund that may be used by a State to administer the fund shall not apply to amounts included as principal in loans made by such fund in fiscal year 2016 and prior years where such amounts represent costs of administering the fund to the extent that such amounts are or were deemed reasonable by the Administrator, accounted for separately from other assets in the fund, and used for eligible purposes of the fund, including administration: Provided further, That for fiscal year 2016, notwithstanding the provisions of sections 201(h) and (l) of the Federal Water Pollution Control Act, grants under Title II of the Federal Water Pollution Control Act for American Samoa, Guam, the Commonwealth of the Northern Marianas, the United States Virgin Islands, and the District of Columbia may also be made for the purpose of providing assistance: (1) solely for facility plans, design activities, or plans, specifications, and estimates for any proposed project for the construction of treatment works; and (2) for the construction, repair, or replacement of privately owned treatment works serving one or more principal residences or small commercial establishments: Provided further, That for fiscal year 2016, notwithstanding the provisions of sections 201(h) and (l) and section 518 of the Federal Water Pollution Control Act, funds reserved by the Administrator for grants under section 518(c) of the Federal Water Pollution Control Act may also be used for grants to provide assistance: (1) solely for facility plans, design activities, or plans, specifications, and

estimates for any proposed project for the construction of treatment works; and (2) for the construction, repair, or replacement of privately owned treatment works serving one or more principal residences or small commercial establishments: Provided further, That for fiscal year 2016, notwithstanding the limitation on amounts in section 518(c) of the Federal Water Pollution Control Act and section 1452(i) of the Safe Drinking Water Act, up to a total of 2 percent of the funds appropriated under the federal Water Pollution Control Act or \$30,000,000, whichever is greater, and up to a total of 2 percent of the funds appropriated under the Safe Drinking Water Act, or \$20,000,000, whichever is greater for State Revolving Funds under such Acts may be reserved by the Administrator for grants under section 518(c) and section 1452(i) of such Acts: Provided further, That for fiscal year 2016, notwithstanding the amounts specified in section 205(c) of the Federal Water Pollution Control Act, up to 1.5 percent of the aggregate funds appropriated for the Clean Water State Revolving Fund program under the Act less any sums reserved under section 518(c) of the Act, may be reserved by the Administrator for grants made under title II of the Clean Water Act for American Samoa, Guam, the Commonwealth of the Northern Marianas, and United States Virgin Islands: Provided further, That for fiscal year 2016, notwithstanding the limitations on amounts specified in section 1452(j) of the Safe Drinking Water Act, up to 1.5 percent of the funds appropriated for the Drinking Water State Revolving Fund programs under the Safe Drinking Water Act may be reserved by the Administrator for grants made under section 1452(j) of the Safe Drinking Water Act: Provided further, That no less than 10 percent but not more than 20 percent of the funds made available under this title to each State for Clean Water State Revolving Fund capitalization grants and not less than 20 percent but not more than 30 percent of the funds made available under this title to each State for Drinking Water State Revolving Fund capitalization grants shall be used by the State to provide additional subsidy to eligible recipients in the form of forgiveness of principal, negative interest loans, or grants (or any combination of these), and shall be so used by the State only where such funds are provided as initial financing for an eligible recipient or to buy, refinance, or restructure the debt obligations of eligible recipients only where such debt was incurred on or after the date of enactment of this Act; (2) \$5,000,000 shall be for architectural, engineering, planning, design, construction and related activities in connection with the construction of high priority water and wastewater facilities in the area of the United States-Mexico Border, after consultation with the appropriate border commission; Provided, That no funds provided by this appropriations Act to address the water, wastewater and other critical infrastructure needs of the colonias in the United States along the United States-Mexico border shall be made available to a county or municipal government unless that government has established an enforceable local ordinance, or other zoning rule, which prevents in that jurisdiction the development or construction of any additional colonia areas, or the development within an existing colonia the construction of any new home, business, or other structure which lacks water, wastewater, or other necessary infrastructure; (3) \$10,000,000 shall be for grants to the State of Alaska to address drinking water and wastewater infrastructure needs of rural and Alaska Native Villages: Provided, That of these funds: (A) the State of Alaska shall provide a match of 25 percent; (B) no more than 5 percent of the funds may be used for administrative and overhead expenses; and (C) the State of Alaska shall make awards consistent with the Statewide priority list established in conjunction with the Agency and the U.S. Department of Agriculture for all water, sewer, waste disposal, and similar projects carried out by the State of Alaska that are funded under section 221 of the Federal Water Pollution Control Act (33 U.S.C. 1301) or the Consolidated Farm and Rural Development Act (7 U.S.C. 1921 et seq.) which shall

allocate not less than 25 percent of the funds provided for projects in regional hub communities; (4) \$110,000,000 shall be to carry out section 104(k) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), including grants, interagency agreements, and associated program support costs: Provided, That not more than 25 percent of the amount appropriated to carry out section 104(k) of CERCLA shall be used for site characterization, assessment, and remediation of facilities described in section 101(39)(D)(ii)(II) of CERCLA; (5) \$10,000,000 shall be for grants under title VII, subtitle G of the Energy Policy Act of 2005; (6) \$1,162,400,000 shall be for grants, including associated program support costs, to States, federally recognized tribes, interstate agencies, tribal consortia, and air pollution control agencies for multi-media or single media pollution prevention, control and abatement and related activities, including activities pursuant to the provisions set forth under this heading in Public Law 104–134, and for making grants under section 103 of the Clean Air Act for particulate matter monitoring and data collection activities subject to terms and conditions specified by the Administrator, of which: \$49,500,000 shall be for carrying out section 128 of CERCLA; \$25,346,000 shall be for Environmental Information Exchange Network grants, including associated program support costs; \$1,498,000 shall be for grants to States under section 2007(f)(2) of the Solid Waste Disposal Act, which shall be in addition to funds appropriated under the heading "Leaking Underground Storage Tank Trust Fund Program" to carry out the provisions of the Solid Waste Disposal Act specified in section 9508(c) of the Internal Revenue Code other than section 9003(h) of the Solid Waste Disposal Act; \$18,500,000 of the funds available for grants under section 106 of the Federal Water Pollution Control Act shall be for State participation in national- and State-level statistical surveys of water resources and enhancements to State monitoring programs. (Department of the Interior, Environment, and Related Agencies Appropriations Act, 2015.)

Program Projects in STAG
(Dollars in Thousands)

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
State and Tribal Assistance Grants (STAG)				
Infrastructure Assistance: Alaska Native Villages	\$10,070.9	\$10,000.0	\$10,000.0	\$0.0
Brownfields Projects	\$97,731.5	\$80,000.0	\$110,000.0	\$30,000.0
Infrastructure Assistance: Clean Water SRF	\$1,547,252.7	\$1,448,887.0	\$1,116,000.0	(\$332,887.0)
Infrastructure Assistance: Drinking Water SRF	\$892,647.9	\$906,896.0	\$1,186,000.0	\$279,104.0
Infrastructure Assistance: Mexico Border	\$5,000.0	\$5,000.0	\$5,000.0	\$0.0
Diesel Emissions Reduction Grant Program	\$20,674.3	\$30,000.0	\$10,000.0	(\$20,000.0)
Targeted Airshed Grants	\$0.0	\$10,000.0	\$0.0	(\$10,000.0)
Subtotal, State and Tribal Assistance Grants (STAG)	\$2,573,377.3	\$2,490,783.0	\$2,437,000.0	(\$53,783.0)
Categorical Grants				
Categorical Grant: Nonpoint Source (Sec. 319)	\$155,708.1	\$159,252.0	\$164,915.0	\$5,663.0

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Categorical Grant: Public Water System Supervision (PWSS)	\$102,692.9	\$101,963.0	\$109,700.0	\$7,737.0
Categorical Grant: State and Local Air Quality Management	\$229,785.7	\$228,219.0	\$268,229.0	\$40,010.0
Categorical Grant: Radon	\$8,602.9	\$8,051.0	\$0.0	(\$8,051.0)
Categorical Grant: Pollution Control (Sec. 106)				
Monitoring Grants	\$18,270.3	\$17,848.0	\$18,500.0	\$652.0
Categorical Grant: Pollution Control (Sec. 106) (other activities)	\$215,338.3	\$212,958.0	\$230,664.0	\$17,706.0
Subtotal, Categorical Grant: Pollution Control (Sec. 106)	\$233,608.6	\$230,806.0	\$249,164.0	\$18,358.0
Categorical Grant: Wetlands Program Development	\$12,290.5	\$14,661.0	\$19,661.0	\$5,000.0
Categorical Grant: Underground Injection Control (UIC)	\$10,470.6	\$10,506.0	\$10,506.0	\$0.0
Categorical Grant: Pesticides Program Implementation	\$13,665.6	\$12,701.0	\$13,201.0	\$500.0
Categorical Grant: Lead	\$13,878.6	\$14,049.0	\$14,049.0	\$0.0
Categorical Grant: Hazardous Waste Financial Assistance	\$98,153.1	\$99,693.0	\$99,693.0	\$0.0
Categorical Grant: Pesticides Enforcement	\$18,386.6	\$18,050.0	\$18,050.0	\$0.0
Categorical Grant: Pollution Prevention	\$4,853.4	\$4,765.0	\$4,765.0	\$0.0
Categorical Grant: Toxics Substances Compliance	\$4,951.7	\$4,919.0	\$4,919.0	\$0.0
Categorical Grant: Tribal General Assistance Program	\$68,241.1	\$65,476.0	\$96,375.0	\$30,899.0
Categorical Grant: Underground Storage Tanks	\$1,535.9	\$1,498.0	\$1,498.0	\$0.0
Categorical Grant: Tribal Air Quality Management	\$12,442.3	\$12,829.0	\$12,829.0	\$0.0
Categorical Grant: Environmental Information	\$12,453.0	\$9,646.0	\$25,346.0	\$15,700.0
Categorical Grant: Beaches Protection	\$9,628.6	\$9,549.0	\$0.0	(\$9,549.0)
Categorical Grant: Brownfields	\$47,622.6	\$47,745.0	\$49,500.0	\$1,755.0
Subtotal, Categorical Grants	\$1,058,971.8	\$1,054,378.0	\$1,162,400.0	\$108,022.0
Congressional Priorities				
Congressionally Mandated Projects	\$9,922.4	\$0.0	\$0.0	\$0.0
Subtotal, Congressionally Mandated Projects	\$9,922.4	\$0.0	\$0.0	\$0.0
TOTAL, EPA	\$3,642,271.5	\$3,545,161.0	\$3,599,400.0	\$54,239.0

Program Area: Categorical Grants

Categorical Grant: Beaches Protection

Program Area: Categorical Grants

Goal: Protecting America's Waters

Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$9,628.6</i>	<i>\$9,549.0</i>	<i>\$0.0</i>	<i>(\$9,549.0)</i>
Total Budget Authority / Obligations	\$9,628.6	\$9,549.0	\$0.0	(\$9,549.0)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The EPA's Beaches Protection program awards grants to eligible coastal and Great Lakes states, territories, and tribes to monitor water quality at beaches and to notify the public, through beach advisories and closures, when water quality exceeds applicable standards. The Beach Grant Program is a collaborative effort between the EPA and states, territories, local governments, and tribes to help ensure that recreational waters are safe for swimming. Congress created the program with the passage of the Beaches Environmental Assessment and Coastal Health Act in October 2000 with the goal of reducing risk to the public of waterborne disease related to the use of recreational water.

FY 2016 Activities and Performance Plan:

The EPA is not requesting funds to support this grant program in FY 2016. The EPA first proposed that this grant program be terminated at the end of FY 2013. While beach monitoring continues to be important to protect human health, states and local governments now have the technical expertise and procedures to continue beach monitoring without federal support, as a result of the significant technical guidance and financial support the Beach Program has provided.

Performance Targets:

This proposed disinvestment means that the agency will no longer retain the following measure:

- SS-1: Number of waterborne disease outbreaks attributable to swimming in or other recreational contact with coastal and Great Lakes waters measured as a 5-year average.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$9,549.0) This reduction reflects the elimination of the Categorical Grant: Beaches Protection Program. The agency is proposing to eliminate certain mature program activities that are well-established, well understood, and where there is the possibility of maintaining some of the human health benefits through implementation at the local level.

Statutory Authority:

Clean Water Act; Beach Act of 2000.

Categorical Grant: Brownfields

Program Area: Categorical Grants

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	\$47,622.6	\$47,745.0	\$49,500.0	\$1,755.0
Total Budget Authority / Obligations	\$47,622.6	\$47,745.0	\$49,500.0	\$1,755.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Brownfields program works collaboratively with stakeholders to clean up, revitalize, and redevelop contaminated property. Stakeholders include states, tribes, local communities, and others involved in environmental revitalization and economic redevelopment. This program supports the agency’s priority of making a visible difference in communities across the country by working with stakeholders to plan, inventory, assess, safely cleanup, and reuse brownfields sites which are real property which may contain a hazardous substance, pollutant, or contaminant. Brownfields redevelopment is a key to revitalizing downtown areas, thereby increasing property values and creating jobs. A study updated in 2014 concluded that cleaning up brownfield properties leads to residential property value increases of 4.9 to 11.1 percent.¹ According to a 2007 study, an average of 10 jobs is created for every acre of brownfields redevelopment.² Revitalizing these once productive properties helps communities by: removing blight, improving environmental conditions; providing public health benefits; satisfying the growing demand for land; helping to limit urban sprawl; fostering ecologic habitat enhancements; enabling economic development; and, maintaining or improving quality of life.

The Brownfields program is a successful model of working cooperatively with stakeholders and sister agencies to help communities oversee, plan, assess, and execute cleanup of brownfield properties. The program will continue to work with relevant governmental agencies to build new tools and strategies that enhance coordination to help communities prioritize sites for assessment, cleanup, and sustainable reuse.

As authorized under Section 128(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), categorical grants are provided to states and tribes to establish core capabilities and enhance their brownfields response programs. State and Tribal response programs address contaminated brownfields sites that do not require federal action but need assessment and/or cleanup before they can be considered ready for reuse. States and tribes may use grant funding provided under this program in the following ways:

¹ Haninger, Kevin, Lala Ma, and Christopher Timmins. 2014. “The Value of Brownfield Remediation” National Bureau of Economic Research Working Paper No. 20296, <http://www.nber.org/papers/w20296.pdf>.

² Howland, Marie. 2007. “Employment Effects of Brownfields Redevelopment, What Do We Know from the Literature?” *Journal of Planning Literature*. 22:91.

- Developing a public record;
- Creating an inventory of brownfields sites;
- Developing oversight and enforcement authorities, or other mechanisms and resources;
- Developing mechanisms and resources to provide meaningful opportunities for public participation;
- Developing mechanisms for approval of cleanup plans, and verification and certification that cleanup efforts are complete;
- Capitalizing a Revolving Loan Fund for brownfields-related work;
- Purchasing environmental insurance;
- Developing state and Tribal tracking and management systems for land use, institutional and engineering controls; and
- Conducting site-specific activities, such as assessments and cleanups at brownfields sites.³

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to award cooperative agreements establishing and enhancing eligible state, territorial, and Tribal response programs under CERCLA 128(a). With the \$1.7 million increase, the EPA will provide additional resources to states and tribes for their response programs to oversee assessment and cleanup activities at brownfield sites. In FY 2016, the EPA will prioritize its efforts and focus additional outreach and support to small and rural communities regarding the Brownfields program and will expect state and Tribal recipients of 128(a) funds to do the same. The EPA will place renewed emphasis on building response program capacity of states and tribes to address the assessment and cleanup of sites with actual or perceived contamination that will increase the number of acres ready for reuse, an important first step toward environmental revitalization and economic redevelopment for communities across the country. Specifically, the state and Tribal response program grants will continue to place a greater emphasis on tracking institutional and engineering controls at brownfield sites to ensure that long-term stewardship activities continue to protect human health and the environment.

Since 2003, the EPA has provided funding in at least one funding cycle to 167 states, tribes, or territories. In FY 2014, the EPA provided funding to 149 states, tribes, territories, and the District of Columbia. In FY 2016, the EPA anticipates utilizing some of the \$1.7 million increase to fund more Tribal grantees, as the number of requests for funding continues to rise. The EPA will continue to allocate funding under this grant program in a way that ensures that core programmatic functions are funded for those Tribal and state response programs making meaningful progress in developing their programs rather than increasing capacity of well-established programs.

Performance Targets:

Work under this program supports performance results in State and Tribal Assistance Grants: Brownfields Projects, which can be found in the Eight-Year Performance Array.

³ Refer to http://www.epa.gov/brownfields/state_tribal/index.html.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$1,755.0) This program change reflects an increase to prioritize ongoing efforts to target brownfields work toward small and rural communities, and fund new Tribal grantees.

Statutory Authority:

Comprehensive Environmental Response, Compensation, and Liability Act, as amended by the Small Business Liability Relief and Brownfields Revitalization Act, 42 United States Code. 6901 et seq. – Section 128.

Categorical Grant: Lead

Program Area: Categorical Grants

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$13,878.6</i>	<i>\$14,049.0</i>	<i>\$14,049.0</i>	<i>\$0.0</i>
Total Budget Authority / Obligations	\$13,878.6	\$14,049.0	\$14,049.0	\$0.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

Recent biomonitoring data show that significant progress has been made in the continuing effort to eliminate childhood lead poisoning as a public health concern. At the same time, studies have indicated that children’s health may be adversely affected even at extremely low blood levels.⁴ In response to this information and the fact that approximately 38 million homes in the U.S. still have lead-based paint,⁵ the EPA Lead Risk Reduction Program is working to reduce the number of children with blood lead levels of five micrograms per deciliter or higher. The Lead program also targets the reduction of disparities in blood lead levels between low-income children and non-low-income children.⁶

The Lead program contributes to the goal of eliminating childhood lead poisoning by:

- Establishing a national pool of certified firms and individuals who are trained to carry out renovation and repair and painting projects while adhering to the lead-safe work practice standards and to minimize lead dust hazards created in the course of such projects;
- Establishing standards governing lead hazard identification and abatement practices and maintaining a national pool of professionals trained and certified to implement those standards; and,

⁴ U.S.EPA. Air Quality Criteria for Lead (September 29, 2006)

<http://cfpub.epa.gov/ncea/CFM/recordisplay.cfm?deid=158823>

Rogan WJ, Ware JH. Exposure to lead in children – how low is low enough? N Engl J Med.2003;348(16):1515-1516

<http://www.precaution.org/lib/rogan.nejm.20030417.pdf>

Lanphear BP, Hornung R, Khoury J, et al. Low-level environmental lead exposure and children’s intellectual function: an international pooled analysis. Environ Health Perspect. 2005; 113(7):894-899

<http://www.pubmedcentral.nih.gov/articlerender.fcgi?doi=10.1289/ehp.7688>

⁵ Jacobs, D.E.; Clickner, R.P.; Zhou, J.Y.; Viet, S.M.; Marker, D.A.; Rogers, J.W.; Zeldin, D.C.; Broene, P.; and Friedman, W. (2002). The Prevalence of Lead-based Paint Hazard in U.S. housing. Environmental Health Perspectives, 110(10): A599-A606

⁶ Centers for Disease Control and Prevention. Fourth Report on Human Exposure to Environmental Chemicals, Updated Tables, (September, 2012). Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. <http://www.cdc.gov/exposurereport/>

- Providing information and outreach to housing occupants and the public so they can make informed decisions and take actions about lead hazards in their homes.

The Lead Categorical Grant Program contributes to the Lead program's goals by providing support to authorized state and Tribal programs that administer training and certification programs for lead professionals and renovation contractors. Please see <http://www.epa.gov/lead> for more information.

FY 2016 Activities and Performance Plan:

In FY 2016, the Lead Categorical Grants Program will continue providing assistance to states, territories, the District of Columbia and tribes to develop and implement authorized lead-based paint abatement programs and authorized Renovation, Repair and Painting (RRP) programs. The EPA directly implements these programs in all areas of the country that are not authorized to do so. The program also conducts outreach activities to educate populations deemed most at risk of exposure to lead from lead-based paint, dust and soil.

Through December 31, 2014, thirty-nine states and territories, four tribes, the District of Columbia and Puerto Rico have been authorized to run the lead-based paint abatement program. In addition, fourteen states and one tribe are authorized to administer the RRP program. As of the same date, there were 479 accredited RRP providers and more than 140,000 certified renovation firms. In FY 2016, the Lead Categorical Grant Program will provide assistance to existing authorized state and Tribal lead programs. The EPA also will provide assistance, using a targeted approach, to states and tribes interested in becoming authorized to run the RRP program.

As of the end of FY 2014, the EPA has fully deployed the improved Federal Lead-based Paint Program Database (FLPP). The improved system has significantly reduced the amount of time applicants spend submitting applications/reports, the number of errors and, therefore, the need for additional or corrected applications to be submitted. Improvements in the system have also prevented the payment of incorrect fee amounts and subsequent refunds that have to be issued, reducing associated agency workload and increasing reporting efficiency.

Performance Targets:

Work under this program supports performance results in the Lead Risk Reduction Program under the Environmental Program and Management tab and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section. There are no performance measures specific to this grants component of the Lead program, although the direct implementation support provided by the grants component contribute significantly to the EPA's success in its performance measures targeting certification of Lead RRP firms and processing those certifications in a timely manner.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- No change in program funding.

Statutory Authority:

Toxic Substances Control Act (TSCA), 15 U.S.C. 2601 et seq. – Sections 401-412.

Categorical Grant: Environmental Information

Program Area: Categorical Grants

Goal: Provide agencywide support for multiple goals to achieve their objectives. This support involves agencywide activities primarily provided by the EPA's six (6) support offices - the Office of Administration and Resources Management (OARM), Office of the Chief Financial Officer (OCFO), Office of Environmental Information (OEI), Office of General Counsel (OGC), Office of the Administrator (OA), and the Office of Inspector General (OIG).

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$12,453.0</i>	<i>\$9,646.0</i>	<i>\$25,346.0</i>	<i>\$15,700.0</i>
Total Budget Authority / Obligations	\$12,453.0	\$9,646.0	\$25,346.0	\$15,700.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

Strengthening state, Tribal, and international partnerships is a priority for the EPA and the Environmental Information Exchange Network (EN) is a critical component of the agency's strategy. The EN is a standards-based, secure approach for the EPA and its state, Tribal and territorial partners to exchange and share environmental data over the Internet. Through its use of technology and data standards, open-source software, shared services and reusable tools and applications, the EN, in tandem with the agency's E-Enterprise efforts, offers its partners tremendous potential for managing, accessing and analyzing environmental data more effectively and efficiently. This will lead to improved decision making and reduced regulatory burden by making data more accessible, eliminating redundant data collection, resolving issues with data validation, streamlining processes, and avoiding development and operational costs for redundant IT systems and components.

EN grants provide funding to states, territories, federally recognized Indian tribes and Tribal consortia to support their participation in the EN. These grants help EN partners acquire and develop the hardware and software needed to connect to the Network; use the EN to collect, report and access the data they need with greater efficiency; and integrate environmental data across programs. In collaboration with the EPA, the Environmental Council of the States (ECOS) accepts the EN as the standard approach for the EPA, state, tribe and territorial data sharing. The grant program has provided the funding to make this approach a reality.

FY 2016 Activities and Performance Plan:

In FY 2016, the agency will continue to develop and support programs and activities in ways that are aligned with the E-Enterprise business strategy, an integral part of the agency's focus on launching a new era of state, local, Tribal, and international partnership. E-Enterprise for the Environment is a transformative 21st century strategy – jointly governed by states and EPA – for modernizing government agencies' delivery of environmental protection. Under this strategy, the

agency will streamline its business processes and systems to reduce reporting burden on states and regulated facilities, and improve the effectiveness and efficiency of regulatory programs for the EPA, states and tribes.

In line with E-Enterprise principles, the EPA and states are replacing outdated paper reporting with integrated reporting capacity using advanced technology and shared IT services. Before those reporting systems are designed, the regulatory programs will undergo business process reviews (e.g. – Lean). If needed, the programs will be streamlined and may eliminate redundant or obsolete data collection requirements. This may achieve burden reduction for states and the regulated community as a result of streamlined reporting and better use of data. In FY 2016, the EPA will be able support a minimum of ten states and tribes to leverage centralized information technology services for electronically signing reports and providing other services that assist co-regulators with the non-repudiation of submissions from the regulated community. In addition, the EPA has the infrastructure in place to provide states and tribes with data quality services that include facility and substance look-ups and a tool to compare and correct facility data with EPA data. FY 2016 resources will be applied to this on-boarding effort.

In FY 2016, the EPA will continue to award EN grants to assist states, tribes and territories to implement proposals that emphasize the following activities:

- **Data Access and Availability:** These activities create services and tools that make state or Tribal data available on demand to other partners. Providing data through Web services and application programming interfaces (APIs) helps facilitate the sharing of information with the public, with private sector entities, and among state, Tribal and territorial agencies and the EPA. The development of an API and Web services approach, in collaboration with Exchange Network partners, advances the Network’s Phase 2 goals of expanding access to environmental data and enhancing inter- and intra-partner data sharing. Emphasis will be placed on projects that develop Web services, APIs and tools that support access, analysis and integration of environmental data. Grant activities may include mobile and desktop applications, executive and program dashboards and publishing environmental information to public sites.
- **New EPA Reporting Data Flows:** Grant projects will support developing and implementing new Exchange Network data flows that enable automated reporting to EPA systems. New national data flows include Integrated Compliance Information System – Air (ICIS-Air), Safe Drinking Water Information System (SDWIS) Prime, Electronic Notice of Intent (eNOI) to discharge, Radon, and Assessment TMDL Tracking & Implementation System (ATTAINS).
- **Partner Data Sharing:** These activities support the partners’ ability to share cross-state, cross-Tribal or state-Tribal data, such as institutional controls at contamination sites, data on cleanup sites and datasets of national significance to tribes (e.g., open dumps).
- **Virtual Node Implementation Support for states, tribes and territories:** This program supports Exchange Network Partners transitioning from using individually-operated nodes to leveraging the EPA-hosted Virtual Node. Moving to the Virtual Node supports the

transition to a cloud-based network infrastructure, which provides a more cost-efficient way for EN partners to manage nodes, thereby decreasing development and operational costs (including licensing, server and administration costs). This new cloud-based model provides a simplified and standardized development environment, creates greater economies of scale and reduces the administration burden on partners.

- **Shared Cross-Media Electronic Reporting Rule (CROMERR) services and components:** This supports state and Tribal adoption and implementation of a suite of CDX services that the EPA has centrally developed for CROMERR functions. Specific Shared Services include electronic signature for submissions from regulated entities, Copy of Record management and identity management within the registration process. States and tribes will use these services that are centrally hosted by the EPA, replacing individually developed system functions. The use of shared services will reduce the time to prepare and review applications and develop systems, and the cost to develop, operate and maintain CROMERR-compliant e-reporting systems.
- Integration with the E-Enterprise Portal that functions as a point of access to information and tools and may provide consolidated entry points for businesses and citizens to efficiently locate, obtain access to, and interact with relevant EPA, state, and Tribal environmental programs and web resources.
- Support for the Exchange Network program and E-Enterprise business strategy through a cooperative agreement with the Environmental Council of the States (ECOS) under the associated program support cost authority (Public Law 113-76). This includes direct support to both Exchange Network and E-Enterprise joint governance, each of which represents a cross-section of the EPA, state and Tribal organizations. The cooperative agreement assists state, Tribal and territorial organizations in fulfilling the missions of both programs by providing programmatic, policy, technical and administrative support; promoting information-sharing amongst state/Tribal/territorial/federal partners; enhancing communication and outreach; and convening national user meetings.

The “National Environmental Information Exchange Network Grant Program Solicitation Notice” sets forth the process for awarding grant funding to states, tribes and territories.⁷ It is an annual guidance document that describes eligibility requirements, the process for application preparation and submission, evaluation criteria, award administration information and post-award monitoring procedures.

Performance Targets:

Work under this program supports multiple strategic objectives. Currently there are no performance measures for this specific program.

⁷ <http://www.epa.gov/exchangenetwork/grants>

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$15,700.0) This program change reflects an increase in funds for states and tribes to build tools, services and capabilities that will enable greater exchange of data for delegated programs between states, tribes, regulated entities and the EPA following E-Enterprise principles. The EPA anticipates that these grants will allow a minimum of ten additional states and tribes to leverage centralized information technology services for electronically signing reports and provide other services that assist co-regulators with legal, compliant submissions. Funding also supports state and Tribal participation in both Exchange Network and E-Enterprise joint governance, each of which represents a cross-section of the EPA, state and Tribal organizations. Funding will allow for reduced reporting burden on states and regulated facilities, and improve the effectiveness and efficiency of federal, state, and Tribal regulatory programs.

Statutory Authority:

Exchange Network Grant Program has been provided by the annual appropriations for EPA: FY 2002 (Public Law 107-73), FY 2003 (Public Law 108-7), FY 2004 (Public Law 108-199), FY 2005 (Public Law 108-447), FY 2006 (Public Law 109-54), FY 2007 (Public Law 110-5), FY 2008 (Public Law 110-161), FY 2009 (Public Law 111-8), FY 2010 (Public Law 111-88), FY 2011 (Public Law 112-10), FY 2012 (Public Law 112-74), FY 2013 (Public Law 113-6), and FY 2014 (Public Law 113-76).

Categorical Grant: Hazardous Waste Financial Assistance

Program Area: Categorical Grants

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Restore Land; Preserve Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$98,153.1</i>	<i>\$99,693.0</i>	<i>\$99,693.0</i>	<i>\$0.0</i>
Total Budget Authority / Obligations	\$98,153.1	\$99,693.0	\$99,693.0	\$0.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Resource Conservation and Recovery Act authorizes and directs the EPA to assist state programs through the Hazardous Waste Financial Assistance Grants program. These state grants provide resources for authorized states to implement the hazardous waste management program.

Under RCRA, the EPA successfully partners with state and local governments, as well as American businesses and non-governmental organizations, to significantly improve waste and material management practices. Through these programs, the EPA and the states protect human health and the environment by minimizing waste generation, preventing the release of millions of tons of hazardous wastes from hazardous waste generators and management facilities, and cleaning up land and water. Authorized states conduct most of the direct implementation of permitting, corrective action, and enforcement components of the RCRA hazardous waste management program.

Hazardous Waste Financial Assistance Grants help the states fulfill their RCRA obligations. States are required to provide a minimum level of matching funds - one state dollar for every three federal grant dollars. This requirement leverages state funding which is essential for state implementation in fulfilling the intent of the comprehensive framework of regulations the EPA has issued under RCRA to assure safe management of solid and hazardous waste.⁸ The EPA acknowledges that many states go beyond the minimum one-to-three match and provide an “overmatch” to help fund additional essential program work. In fact, EPA STAG funds amount to well over half of the total resources available in state program budgets.⁹

The RCRA permitting program provides financial assistance for states to develop and implement permits that minimize hazardous waste generation, prevent the release of hazardous constituents from hazardous waste management facilities, and provide for safe waste management. These actions prevent future contamination and protect the health of millions of Americans who live within one mile of a hazardous waste management facility. Data from the U.S. Bureau of Labor

⁸ For matching fund requirements, see 40 C.F.R. § 35.215 for states and 40 C.F.R. § 35.725 for tribes.

⁹ State RCRA Subtitle C Core Hazardous Waste Management Program Implementation Costs - Final Report (Association of State and Territorial Solid Waste Management Officials, January 2007)

http://www.astswmo.org/Pages/Policies_and_Publications/Hazardous_Waste.htm

Statistics show an increasing trend in the number of jobs in the waste management and remediation services industry with a 19.2 percent increase from January 2001 to December 2012.¹⁰

These grant resources also assist states in ensuring the safe cleanup of past and continuing releases through the RCRA corrective action program. The EPA and states focus their corrective action resources on 3,779 hazardous waste facilities. These facilities include some of the most highly contaminated, technically challenging, and potentially threatening sites the EPA and states confront in any of their cleanup programs.¹¹

Over 105 million people live within three miles of a RCRA corrective action site (roughly 35 percent of the U.S. population). While there is no single way to characterize communities located near the sites, this population is more minority, low income, linguistically isolated, and less likely to have a high school education than the U.S. population as a whole.¹² As a result, these communities may have fewer resources with which to address concerns about their health and environment.

The cost to clean up sites under the RCRA program can vary widely, with some costing less than \$1 million, and others exceeding \$50 million. The length and complexity of the cleanups also vary and can take from a year to decades to fully remediate and return the site to productive use. By addressing contamination during the operational life of the facility, and before a facility goes bankrupt, RCRA saves the taxpayers from bearing the significant cleanup costs under Superfund.

The STAG program applies to all 50 states and 6 territories. Currently, 48 states and 2 territories are authorized to implement the RCRA program with regulatory direction and oversight from the EPA. The agency provides funding assistance through the Hazardous Waste Financial Assistance Grants program and participates in worksharing with states and tribes. When appropriate, these grants also are used to support tribes in conducting hazardous waste work in Indian Country. In addition, the EPA directly implements the RCRA program in the states of Iowa and Alaska.

FY 2016 Activities and Performance Plan:

The Hazardous Waste Financial Assistance Grants include funding for the following:

- Issuing and renewing permits to hazardous waste treatment, storage and disposal (TSD) facilities that are part of the permitting universe of 6,600 facilities;
- Overseeing cleanups of releases at facilities that are among the 3,779 TSD and priority cleanups;
- Inspecting facilities;
- Taking appropriate enforcement actions; and

¹⁰ Data extracted from the U.S. Bureau of Labor Statistics, February 2013. <http://www.bls.gov/iag/tgs/iag562.htm#workforce>.

¹¹ The EPA tracks corrective action obligations for RCRA-permitted facilities. There are additional non-permitted facilities that may have corrective action obligations not tracked by the EPA; these facilities are typically small sites. The EPA recognizes that the total universe of such facilities or sites "subject to" corrective action universe is between five and six thousand facilities or sites, and is evaluating this universe to determine if cleanup work is needed.

¹² U.S. EPA, Office of Solid Waste and Emergency Response Estimate. 2014. Data collected includes: (1) site information as of the end of FY 2011 from RCRAInfo; and (2) census data from the 2007-2011 American Community Survey.

- Maintaining data, support systems, and authorized regulations, for implementing these programs.

State work is crucial to meeting key program goals, and state commitments toward the national goals that are negotiated into state grant agreements. The agency has authorized 43 states and one territory to directly implement the RCRA corrective action program at the majority of the sites with leadership and support from the EPA. In FY 2016, the agency and states continue to face a significant workload to implement protective cleanups for our nation's most significant operational cleanup sites.

The agency and states will use site investigations to identify threats; establish interim remedies to reduce and eliminate exposure; and select and construct safe, effective long-term remedies that maintain the viability of the operating facility. The EPA and states continue to grapple with hundreds of very large, highly contaminated sites and many small but equally contaminated sites.

To improve the accountability, transparency, and effectiveness of RCRA cleanup program, the agency used the Lean¹³ process to identify and eliminate inefficiencies. The agency developed tools to increase efficiencies and provided them to the states. Improvements related to better planning, reduced review time frames, reductions in rework, and better conflict resolution will help preserve resources and allow state programs to more effectively focus resources on critical facilities, accelerate cleanups, and put properties back into safe and productive use. The Lean participants estimated the efficiencies identified and associated implementation tools could significantly reduce the investigation timeframes by about 74 percent. The benefits of streamlining are leading to faster cleanups (e.g., reduced time frames for facility investigations lead to faster remedy response and prevention of exposures) in both authorized and unauthorized states. In FY 2016, the agency will be evaluating the successes of the Lean on the corrective action program and likely working to identify any additional portions of the cleanup process that would benefit from a Lean analysis.

Resources will be used to issue facility-specific initial permits and review and improve permits when they are modified or renewed. The national RCRA program provides leadership for meeting our legal obligation to the following:

- Reassess land disposal permits every five years;
- Renew all permits at least every ten years;
- Maintain permits by modifying them to address changes in operations; and
- Monitor facility performance to ensure that permits continue to protect people and ecosystems from harmful exposures to hazardous pollutants.

Although the vast majority of hazardous waste management facilities have government-approved controls in place, it is a continuing challenge to process modification requests or renewal applications in a timely manner so that permittees who seek changes to their facility design or operations (e.g., to take advantage of improvements in technology or shifts in waste streams being managed), are not delayed in effecting such changes. Timely permit actions benefit industry by

¹³ Principles of Lean. The Lean Enterprise Institute, Inc. <http://www.lean.org/WhatsLean/Principles.cfm>

enabling them to implement state-of-the-art design and management practices that improve the efficiency and effectiveness of their operations, and to respond to economic opportunity by making timely product changes.

The RCRA permitting program faces a significant workload to ensure controls remain protective. In FY 2016, the EPA and authorized states will oversee and manage RCRA permits for approximately 20,000 hazardous waste units at 6,600 facilities in the permitting universe. Due to declining state resources, the EPA has received an increasing number of requests from authorized states for direct implementation support, such as taking over the cleanup work at specific RCRA corrective action sites within a state or doing the risk assessments for state permits. The number of requests for direct implementation support varies among the states and regions.

States will continue to work to meet the FY 2016 target of implementing permits, initial approved controls, and updated controls at 115 RCRA hazardous waste management facilities. Based on current levels of state funding, the EPA expects that the current permit backlog will remain reasonably constant in the foreseeable future since the new workload added each year is almost the same as the annual accomplishments.

An important objective in FY 2016 is ensuring owners and operators of hazardous waste management facilities and reclamation facilities demonstrate that they have financial mechanisms in place to cover the full costs of closure, post-closure, and clean-up activities. The EPA understands that states that have been able to closely review initial cost estimates have found them to be insufficient to cover the up-to-date costs of closure and post-closure. Verifying the adequacy of cost estimates and financial assurance documentation requires specialized knowledge and experience, and is a key activity that protects taxpayer dollars by ensuring that money will be available to properly close, clean up, and monitor the site if, for example, the facility is abandoned or the owner goes bankrupt. Continued focus in this area can avoid the risk of sites having to be addressed by the Superfund program or other cleanup programs.

In FY 2016, the EPA will continue a multi-year implementation transition to an updated approach for distributing Hazardous Waste Financial Assistance Grants to the states that began in FY 2015. The new approach, which replaces methodology first instituted in FY 1996, will better align cooperative agreement funding to state needs, and maximize the environmental benefits and program performance of this funding. The EPA worked in consultation with the states during the development of the new approach and has informed Congressional appropriators of the new allocation methodology. In FY 2016, the EPA will consider whether adjustment or refinement of the methodology is warranted.

Performance Targets:

Work under this program supports performance results in the RCRA Waste Management and RCRA Corrective Action programs, which can be found in the Eight Year Performance Array.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- No change in program funding.

Statutory Authority:

Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 United States Code 6901 et seq. - Section 3011, and the Department of Veterans Affairs and Housing and Urban Development and Independent Agencies Appropriations Act; Public Law 105-276; 112 Stat. 2461, 2499 (1988).

Categorical Grant: Nonpoint Source (Sec. 319)

Program Area: Categorical Grants

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$155,708.1</i>	<i>\$159,252.0</i>	<i>\$164,915.0</i>	<i>\$5,663.0</i>
Total Budget Authority / Obligations	\$155,708.1	\$159,252.0	\$164,915.0	\$5,663.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

Section 319 of the Clean Water Act (CWA) broadly authorizes states, territories, and tribes to use a range of tools to implement their Nonpoint Source Programs, including: regulatory and non-regulatory programs, technical assistance, financial assistance, education, training, technology transfers, and demonstration projects.¹⁴ Grants under Section 319 are provided to states, territories, and tribes to help them implement their EPA approved Nonpoint Source Management Programs by remediating past nonpoint source pollution and preventing or minimizing new nonpoint source pollution. Implementation of watershed-based plans helps states achieve load reductions contained in Total Maximum Daily Loads to achieve water quality standards. As of FY 2014, these implementation projects have allowed states to remediate over 560 waterbodies that were primarily impaired by nonpoint source pollution so that they now meet water quality standards. In FY 2013, the EPA issued new Section 319 Program and Grant Guidelines and other program documents that enhance program accountability and performance. The EPA continues to oversee implementation of these program enhancements and to provide technical assistance to support state and Tribal nonpoint source programs. To further accelerate the reduction of nonpoint source pollution, the EPA and the U.S. Department of Agriculture (USDA) continue to enhance coordination to achieve improvements in water quality by targeting resources and helping landowners implement voluntary stewardship practices in 174 small watersheds nationwide.

Community Highlight: Wareham, MA
 Over the past decade, the Town of Wareham, Massachusetts has begun one of the Commonwealth's most complete programs to address the pollution problems caused by storm water discharges along the town's shoreline. Contamination from storm water runoff, particularly suspended solids and fecal coliform contamination, has forced many shellfish beds and public bathing beaches along Massachusetts' coast to close. Several Section 319 successful projects have assisted in reducing fecal coliform bacteria, fecal streptococcus bacteria, petroleum hydrocarbons and zinc. For more information visit:
http://water.epa.gov/polwaste/nps/success319/Section319III_MA.cfm

Nonpoint source pollution, caused by runoff that carries excess nutrients, toxics and other contaminants to waterbodies, is the greatest remaining threat to surface and groundwater quality

¹⁴See <https://www.cfd.gov> for more information.

impairments in the United States. As of August 2014 there are approximately 42.5 thousand waterbodies listed as impaired.¹⁵ Nonpoint sources are the primary cause of impairment in over 75 percent of these impaired waters and nonpoint sources figure significantly in all but ten percent of the other waterbody impairments.

FY 2016 Activities and Performance Plan:

The pervasiveness and widely distributed nature of nonpoint source pollution requires cooperation and involvement from a wide range of stakeholders to address it, including the EPA, other federal agencies, the states, local governments, nonprofit organizations, conservation districts, and private landowners. The EPA will work closely with and support the many efforts of states, interstate agencies, tribes, local governments and communities, watershed groups, the USDA and other federal agencies, and others to develop and implement programs and local watershed projects to restore surface water and groundwater nationwide.

In FY 2016, the program will focus on continuing to work with states to implement the revised Section 319 grant guidelines issued in FY 2013. These reforms include a robust focus on watershed project implementation; requiring states to develop and maintain current Nonpoint Source Management Programs to focus priorities funded through Section 319; and providing incentives for additional leveraging of state and local funding for nonpoint source projects. The EPA will continue a strong focus on the development and implementation of watershed-based plans to restore impaired waterbodies to meet water quality standards, as well as to protect unimpaired waters. It has been demonstrated repeatedly that achieving water quality results requires targeting, with the right practices, the primary sources of NPS pollution in a watershed. Watershed-based plans enable this by providing an analysis of sources and relative significance of pollutants of concern; identification of cost-effective techniques to address those sources; availability of needed resources, authorities, and community involvement to affect change; along with monitoring to enable states and local communities to track progress and make changes over time to meet their water quality goals.

The EPA will continue to forge and strengthen strategic partnerships with other federal agency programs, in particular the USDA Natural Resources Conservation Service, which implements Farm Bill conservation programs that can help control nonpoint source pollution. Agricultural sources of pollution in the form of animal waste, fertilizer, and sediments have a particularly profound effect on water quality. In FY 2016, the EPA will continue the National Water Quality Initiative partnership with USDA to focus federal resources on agricultural sources of pollution in select watersheds in every state. In FY 2016, the EPA will work with states to provide annual updates of interim progress metrics in all watersheds and will begin reporting on instream monitoring being conducted in at least 50 focus watersheds to assess water quality progress from implemented conservation practices.

To address urban and suburban sources of nonpoint source pollution, the EPA will continue to work closely with a broad set of partners to promote the implementation of low-impact development practices (also called green infrastructure). Low-impact development practices, such as rain gardens and permeable pavement, reduce harm to water quality by reducing peak flows

¹⁵ See http://ofmpub.epa.gov/tmdl_waters10/attains_nation_cy.control?p_report_type=T for more information.

during storms, filtering pollutants, and recharging groundwater. Low-impact development practices may also help reduce flood damages. Working with states, cities, developers, watershed associations, and federal agencies such as FEMA with an interest in flood protection and floodplain management, the EPA will continue to spread knowledge and adoption of low-impact development practices.

The EPA has a priority goal that tracks the revision of state Nonpoint Source Management Program Plans reflecting the important role the plans have in driving programs. The update of state Nonpoint Source Management Programs is important for the setting of state priorities and strategic targeting of Section 319 funds (along with state match and other funds) towards the most pressing nonpoint source problems. An up-to-date state Nonpoint Source Management Program is the roadmap that drives strategic implementation activities to control and prevent pollution for a state's entire Nonpoint Source Program. It establishes the state's goals, priorities, and key milestones and actions over time. This program provides the essential context within which the annual Section 319 funded workplans deliver program and project results. As of December 2014, all of the states and Washington, DC, are on track for meeting the EPA's priority goal to update their Nonpoint Source Management Programs by September 30, 2015.

Performance Targets:

Measure	(bpf) Estimated annual reduction in millions of pounds of phosphorus from nonpoint sources to water bodies (Section 319 funded projects only).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	Pounds (Million)
Actual	3.5	2.6	4.8	4.4	3.5	Data Avail 03/2015			

Measure	(bpg) Estimated additional reduction in million pounds of nitrogen from nonpoint sources to water bodies (Section 319 funded projects only).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	8.5	8.5	8.5	8.5	9.1	9.1	9.1	9.1	Pounds (Million)
Actual	9.1	9.8	12.8	9	10.4	Data Avail 03/2015			

Measure	(bph) Estimated additional reduction in thousands of tons of sediment from nonpoint sources to water bodies (Section 319 funded projects only).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	700	700	700	700	1,100	1,200	1,200	1,200	Tons (Thousand)
Actual	2,300	2,100	2,007	1,100	1,169	Data Avail 03/2015			

The EPA provides grant funds to states and tribes under CWA Section 319 to implement comprehensive programs to control nonpoint pollution, including reduction in runoff of nitrogen, phosphorus, and sediment. The EPA monitors progress in reducing loadings of these key pollutants.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$5,663.0) This reflects an increase for state nonpoint source programs, including implementation of nonpoint source projects and statewide nonpoint source protection activities. With this increase, states will implement approximately 30 additional watershed restoration projects than were planned in FY 2015.

Statutory Authority:

CWA Section 319.

Categorical Grant: Pesticides Enforcement

Program Area: Categorical Grants

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$18,386.6</i>	<i>\$18,050.0</i>	<i>\$18,050.0</i>	<i>\$0.0</i>
Total Budget Authority / Obligations	\$18,386.6	\$18,050.0	\$18,050.0	\$0.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Pesticides Compliance Monitoring and Enforcement Cooperative Agreement program supports pesticide product and user compliance with provisions of the Federal Insecticide, Fungicide, and Rodenticide Act through cooperative agreements with states and tribes. Areas of focus include:

- Inspections and enforcement to reduce chemical risks and protect vulnerable populations;
- Compliance assistance to the regulated community to foster knowledge of and compliance with environmental laws pertaining to pesticides;¹⁶ and,
- Training for state and Tribal inspectors through the Pesticide Inspector Residential Training program and for state and Tribal managers through the Pesticide Regulatory Education program.¹⁷

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to award state and Tribal pesticides cooperative agreements to assist in the implementation of the compliance monitoring and enforcement provisions of the Federal Insecticide, Fungicide, and Rodenticide Act. The EPA provides grants to 56 states and territories and 18 Tribal grants encompassing 32 tribes.

These cooperative agreements support state and Tribal compliance and enforcement activities designed to protect the public and the environment from harmful chemicals and pesticides. Enforcement and pesticides program cooperative agreement guidance is issued to focus regional, state and Tribal efforts on the highest priorities. The EPA’s support to state and Tribal pesticide programs¹⁸ emphasizes reducing chemical risks by ensuring compliance with:

- Worker protection standards;
- Pesticide applicator certification and training requirements;

¹⁶ For additional information, refer to: www.epa.gov/compliance/state/grants/fifra.html.

¹⁷ For additional information, refer to: www.epa.gov/oppfead1/tribes

¹⁸ For additional information, refer to: www.epa.gov/tribalcompliance/pests/ptcompliance.html

- Requirements for management of pesticide containers;
- Soil fumigation label requirements; and
- Pesticide use requirements designed to protect water quality.

Performance Targets:

Work under this program supports the strategic objective Enforce Environmental Laws. Currently there are no performance measures specific to this program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- No change in program funding.

Statutory Authority:

Federal Insecticide, Fungicide, and Rodenticide Act.

Categorical Grant: Pesticides Program Implementation

Program Area: Categorical Grants

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$13,665.6</i>	<i>\$12,701.0</i>	<i>\$13,201.0</i>	<i>\$500.0</i>
Total Budget Authority / Obligations	\$13,665.6	\$12,701.0	\$13,201.0	\$500.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The EPA’s mission, as related to pesticides, is to protect human health and the environment from pesticide risk and to realize the value of pesticide availability by considering the economic, social, and environmental costs and benefits of the use of pesticides.¹⁹ The agency provides grants to states, tribes and other partners, including universities, non-profit organizations, other federal agencies, pesticide users, environmental groups, and other entities, as necessary, to assist in strengthening and implementing the EPA’s pesticide programs. This STAG program focuses on areas such as worker safety activities (including worker protection and certification and training of pesticide applicators), protection of endangered species,²⁰ protection of water resources from pesticides, and promotion of environmental stewardship and Integrated Pest Management related activities. These agency activities are achieved through implementation of its statutes and regulatory actions.

Pesticide program implementation grants ensure that pesticide regulatory decisions made at the national level are translated into results at the local level. The EPA provides resources for those closest to the source of potential risks from pesticides, since they are in a position to better evaluate risks and implement risk reduction measures. Stakeholders at the local level, including states and tribes, provide essential support in implementing pesticide programs. The agency engages stakeholders, including states, in the regulatory process and considers their input regarding effectiveness and soundness of regulatory decisions. The states and tribes also develop data to measure program performance. Under the pesticide statutes, responsibility for ensuring proper pesticide use is in large part delegated to states and tribes. Grant resources allow states and tribes to be more effective regulatory partners.

¹⁹ Federal Insecticide, Fungicide and Rodenticide Act, as amended January 23, 2004. Section 3(a), Requirement of Registration (7 U.S.C. 136a). Available online at <http://www.epa.gov/opp00001/regulating/laws.htm>

²⁰ The Endangered Species Act of 1973 sections 7(a)1 and 7 (a)2; Federal Agency Actions and Consultations, as amended (16 U.S.C. 1536(a)). Available at U.S. Fish and Wildlife Service, Endangered Species Act of 1973 internet site: <http://www.fws.gov/endangered/laws-policies/section-7.html>

FY 2016 Activities and Performance Plan:

Certification and Training and Worker Protection

Through the Certification, Training and Worker Protection programs, the EPA protects workers, pesticide applicators and handlers, employers, and the public from the potential risks posed by pesticides in their homes and work environments. In FY 2016, the EPA will continue to provide assistance and grants to implement the Certification, Training and Worker Protection programs. Grants fund maintenance and improvements in training networks, safety training for workers and pesticide handlers, creation of Train-the-Trainer courses, workshops, and development and distribution of outreach materials. The agency's partnership with states and tribes to educate workers, farmers, and employers about the safe use of pesticides and worker safety will continue to be a major focus. See <http://www.epa.gov/oppfead1/safety/applicators/applicators.htm> for more information.

Endangered Species Protection Program

The Endangered Species Protection Program (ESPP) protects federally listed, threatened or endangered animals and plants whose populations are threatened by risks associated with pesticide use.²¹ The EPA complies with Endangered Species Act (ESA) requirements to ensure that its regulatory decisions will not likely jeopardize the continued existence of species listed as endangered and threatened, or destroy or adversely modify habitat designated as critical to those species' survival. The EPA will provide grants to states, tribes, and other partners, as described above, for projects supporting endangered species protection. Program implementation includes outreach, communication, education related to use limitations, review and distribution of endangered species protection bulletins, and mapping and development of endangered species protection plans. These activities support the agency's mission to protect the environment from pesticide risk.

Protection of Water Sources from Pesticide Exposure

Protecting the nation's water sources from possible pesticide contamination is another component of the EPA's environmental protection efforts. The EPA provides funding, through cooperative agreements, to states, tribes, and other partners to investigate and respond to water resource contamination by pesticides. Stakeholders and partners, including states and tribes, are expected to evaluate local pesticide uses that have the potential to contaminate water resources and take steps to prevent or reduce contamination where pesticide concentrations approach or exceed levels of concern.

The EPA's cooperative agreements for pesticides typically include the following three-tier approach:

1. Evaluate: Identify pesticides that may have the potential to threaten water quality locally.

²¹ <http://www.epa.gov/oppfead1/endanger/species-info.htm>

2. Manage: If the evaluation indicates that the pesticide may be found at levels locally that raise water quality concerns, take action to manage use of those pesticides and mitigate exposure.
3. Demonstrate Progress: For pesticide uses that are actively managed, examine available data and trends to demonstrate improvement in water quality.

Integrated Pest Management

Within available resources, the EPA will continue to support risk reduction by providing assistance to promote the use of safer alternatives to traditional chemical pest control methods including Integrated Pest Management (IPM) techniques.²² The EPA supports the development and evaluation of new pest management technologies that contribute to reducing both health and environmental risks from pesticide use.

The EPA will support implementation of Tribal pesticide programs through grants. Tribal program outreach activities support Tribal capacity to protect human health by reducing risks from pesticides in Indian country. This task is challenging given that certain aspects of Native Americans' lifestyles, such as subsistence fishing or consumption of plants that were not grown as food and possibly exposed to pesticides not intended for food use, may increase exposure to some chemicals or create unique chemical exposure scenarios. For additional information, please see <http://www.epa.gov/oppfead1/tribes/>.

The agency will continue to fund a multi-year grant in support of the State Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); Issues Research and Evaluation Group, which provides common services to states and ensures the close coordination of states and the EPA on pesticide issues.

Pollinator Health

The EPA will work with state and Tribal agencies to promote the development of locally-based plans to help improve pollinator health. State pollinator protection plans in place in several states have demonstrated that these plans can be an effective communication and collaboration mechanism between stakeholders at the local level that can lead to reduced pesticide exposure and protection of honey bees, while maintaining the flexibility needed by growers. The EPA believes that these plans, developed through a robust stakeholder engagement process at the local level, serve as good models for enhanced local communication and can also help accomplish the EPA's overall goal of mitigation exposure to bees from acutely toxic pesticides.

Performance Targets:

Work under this program supports performance results in the Protect Human Health from Pesticide Risk, Protect the Environment from Pesticide Risk, and Realize the Value of Pesticide Availability program descriptions under the Environmental Program and Management tab and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section. Currently, there are no specific performance measures for this program.

²² For additional information, see <http://www.epa.gov/pesp/>.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$500.0) This program change reflects an increase in the funding for grants supporting states and tribes to develop pollinator protection plans.

Statutory Authority:

Pesticide Registration Improvement Extension Act (PRIA 3); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); Federal Food, Drug and Cosmetic Act (FFDCA); Food Quality Protection Act (FQPA) of 1996; Endangered Species Act (ESA).

Categorical Grant: Pollution Control (Sec. 106)

Program Area: Categorical Grants

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	\$233,608.6	\$230,806.0	\$249,164.0	\$18,358.0
Total Budget Authority / Obligations	\$233,608.6	\$230,806.0	\$249,164.0	\$18,358.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

Section 106 of the Clean Water Act authorizes the EPA to provide federal assistance to states (including territories and the District of Columbia), tribes qualified under Clean Water Act Section 518(e), and interstate agencies to establish and maintain adequate programs for the prevention and control of surface and groundwater pollution from point and nonpoint sources. Prevention and control activities supported through these grants include providing permits, ambient water quality monitoring and assessment, water quality standards development, Total Maximum Daily Load (TMDL) development, surveillance and enforcement, water quality planning, advice and assistance to local agencies, training, and public information. Section 106 grants also may be used to provide “in-kind” support through an EPA contract, if requested by a state or tribe.

In FY 2016, the EPA will continue to work with states, interstate agencies, and tribes to foster a “watershed approach” as the guiding principle of their clean water programs. This approach conducts and assesses monitoring efforts, develops TMDLs, and writes National Pollutant Discharge Elimination System (NPDES) permits with the goal of sustaining and improving the entire watershed.

FY 2016 Activities and Performance Plan:

The Section 106 Grant Program supports prevention and control measures that improve water quality. In FY 2016, the agency is requesting an additional \$18 million in Section 106 funding for states and tribes to implement water pollution control programs and support state and Tribal nutrient management efforts. The EPA is working in partnership with states to address nitrogen and phosphorus pollution through the use of a Framework for State Nutrient Reductions provided in EPA guidance issued in March 2011.²³ Nitrogen and phosphorus pollution has the potential to become one of the costliest and most challenging environmental problems. The nutrient reduction activities outlined in the Framework will work in conjunction with those being carried out by states and tribes using Section 319 and U.S. Department of Agriculture funding and focus on a set

²³ The eight key principles are identified in the March 16, 2011, memorandum “Working in Partnership with States to Address Phosphorus and Nitrogen Pollution through the Use of a Framework for State Nutrient Reductions (Framework)”

of key principles that guide the agency's technical assistance and collaboration with the states. The EPA will work with states and tribes as they develop work plans to ensure these additional funds are used for tasks consistent with the Framework and support the implementation of nutrient reduction activities.

Monitoring and Assessment:

The EPA is working to achieve greater integration of national, regional, state, and local level monitoring efforts, to connect monitoring and assessment activities, and to develop data that can serve multiple Clean Water Act programs in a cost-efficient and effective manner. Continued funding will ensure that scientifically defensible monitoring data are available to address issues and problems at state, national, regional and local levels.

In FY 2016, the EPA will continue working with states and tribes to enhance their water quality monitoring programs. Monitoring Initiative funds for states and tribes will continue to support the statistically valid National Aquatic Resource Surveys of national and regional water conditions and implementation of state and Tribal monitoring strategies. In FY 2016, the Monitoring Initiative will be funded at \$18.5 million and will be designated for states and tribes under the Initiative: \$8.5 million for monitoring as part of statistically valid reports on the national water condition, and \$10.0 million to implement program improvements per state monitoring strategies. Through the Monitoring and Assessment Partnership, the EPA will work with states to develop and apply innovative and efficient monitoring tools and techniques to optimize availability of high-quality data to support Clean Water Act program needs. The Partnership also will expand the use of monitoring data and geo-spatial tools for water resource protection to set priorities and evaluate effectiveness of water protection. This will allow the EPA, states, and tribes to continue reporting on the condition of the nation's water and make significant progress toward assessing trends in water condition in a scientifically defensible manner.

The EPA, states, and tribes will collaborate to plan and mobilize for the 2016 National Wetlands Condition Assessment as part of the national surveys. The EPA and states will complete data analysis and peer review of the second National Rivers and Streams Assessment and issue the report in FY 2016. In FY 2016, the EPA/State Steering Committee for the National Lakes Assessment will be planning the next survey targeted to be conducted in the field in calendar year 2017.

Review and Update Water Quality Standards:

States and authorized tribes will continue to review and update their water quality standards as required by the Clean Water Act. The EPA encourages states to review continually and update water quality criteria in their standards to reflect the latest scientific information from the EPA and other sources. The EPA's goal for FY 2016 is that 73.2 percent of states and territories will have updated their standards within the past three years to reflect the latest scientific information. Additionally, the EPA places a high priority on state adoption of numeric water quality criteria for nitrogen and phosphorus as part of a partnership with states to address these pollutants under the Framework for state nutrient reductions. Finally, the EPA will continue to work with tribes that want to establish water quality standards.

Develop Total Maximum Daily Loads:

Development and implementation of Total Maximum Daily Loads (TMDLs) for CWA 303(d) listed impaired waterbodies is a critical tool for meeting water quality restoration goals. TMDLs focus on clearly defined environmental goals and establish a pollutant budget, which is then implemented via permit requirements and through local, state, and federal watershed plans and programs. In FY 2016, the CWA 303(d) Listing and TMDL Program will continue to engage with states to implement the new 10-year vision for the program.²⁴ As part of this effort, the EPA will continue encouraging states to: develop processes for setting priorities; identify priorities (waters and/or impairments) for assessment; and complete TMDLs. The EPA will work with states and other partners to develop and implement activities and watershed plans to restore these waters. Also, the EPA will continue to work with states to facilitate accurate, comprehensive, and geo-referenced water quality data made available to the public via the Assessment Total Maximum Daily Load Tracking and Implementation System. States and the EPA have made significant progress in the development and approval of TMDLs. As of FY 2014, states had developed more than 62,000 TMDLs; however, over 48,000 TMDLs remain to be completed. States will continue to use Section 106 funding to develop TMDLs that remain to be completed and that more readily facilitate implementation of point and nonpoint source load reductions. In addition, the EPA and states will continue to implement a new performance measure that looks more comprehensively at the 303(d) program by measuring the extent of state priorities addressed by TMDLs, alternative restoration plans or set of actions, or protection plans.

Issue Permits:

The National Pollutant Discharge Elimination System (NPDES) program requires point source dischargers to be permitted and pretreatment programs to control discharges from industrial and other facilities to the nation's wastewater treatment plants. Improvements to the structure of the permit program will better support comprehensive protection of water quality on a watershed basis, as well as to address recent increases in the permit universe arising from court orders and environmental concerns. The EPA will work with states to balance competing priorities, to identify opportunities to enhance the integrity and effectiveness of NPDES permits, to start schedules for action items based on the significance of the action, and to map out program revisions. The EPA will encourage the states to seek opportunities to incorporate efficiency tools such as electronic reporting, watershed permitting, and trading.

As updates are made to the NPDES regulations and program requirements, the EPA continues to work with states to incorporate new requirements into their regulations. For example, the EPA will work with states as they implement the recently revised regulations for cooling water intake structure for existing facilities and the revised national technology-based standards for discharges from steam electric power plants, once those regulations are finalized.

Stormwater discharges are a significant cause of water quality impairment, especially in urban areas where rainwater flows over impervious cover, carrying pollutants and erosive flows into the nation's water bodies. The EPA will be working with states as they revise and reissue their permits for stormwater discharges from construction activities and from industrial activities. The EPA also will continue to work with states as they issue permits and implement permitting programs for municipal separate storm sewer systems (MS4s). Green infrastructure management

²⁴ For more information see: <http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/programvision.cfm>

approaches are an effective means to reduce water pollution caused by wet weather events. States will be working with municipalities to implement Green Infrastructure and other stormwater management measures to better protect the nation's waters from stormwater discharges. They will need to help MS4 communities that are newly regulated develop sound stormwater programs.

Conducting Compliance Monitoring and Enforcement:

Despite significant progress in reducing water pollution from the largest sources, the country still faces serious regulatory and compliance challenges in attaining the water quality goals of the Clean Water Act. In October 2009, the agency issued its Clean Water Act Action Plan to target enforcement on the most important water pollution problems, strengthen oversight of the states, and improve transparency and accountability. In implementing this plan, the EPA Regional Offices and states are including consideration of enforcement and permitting in an integrated way and taking action where long-standing problems with permit quality or enforcement programs exist. In addition, the EPA and state co-regulators have collaboratively researched and debated a wide range of new approaches for fundamentally changing approaches to the NPDES permitting and enforcement program. This constructive dialogue between state Clean Water Act agencies and the EPA has facilitated a long-term, goal-oriented commitment to improving compliance with the Clean Water Act. These new approaches, which address numerous challenges facing the EPA and state agencies, are included in the document titled “Clean Water Action Plan Implementation Priorities: Changes to Improve Water Quality, Increase Compliance, and Expand Transparency” issued on May 11, 2011. In FY 2016, the EPA and states will work together to pilot innovative approaches to enforcement that can inform future implementation.

Working with Tribal Water Pollution Control Programs:

In FY 2016, the EPA will continue to work with Tribal programs on activities that address water quality and pollution problems on Tribal lands. Working with Tribal governments, the EPA will continue to monitor the implementation of the *Clean Water Act Section 106 Tribal Guidance*, which forms a framework for tribes to establish, implement, and expand their Water Pollution Control Programs.

Performance Targets:

Measure	(bpl) Percent of high-priority state NPDES permits that are issued in the fiscal year.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	95	95	100	100	80	80	80	80	Permits
Actual	147	142	135	130	55	80			

Measure	(bpw) Percent of states and territories that, within the preceding 3-year period, submitted new or revised water quality criteria acceptable to the EPA that reflect new scientific information from the EPA or sources not considered in previous standards.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	68	66	64.3	64.3	64.3	66.1	67.9	73.2	States and Territories
Actual	62.5	67.9	69.6	69.6	58.9	51.8			

Measure	(L) Number of water body segments identified by states in 2002 as not attaining standards, where water quality standards are now fully attained (cumulative).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	2,270	2,809	3,073	3,324	3,727	3,829	4,016	4,166	Segments
Actual	2,505	2,909	3,119	3,527	3,679	3,866			

Measure	(bpx) Extent of priority areas identified by each state that are addressed by EPA-approved TMDLs or alternative restoration approaches for impaired waters that will achieve water quality standards. These areas may also include protection approaches for unimpaired waters to maintain water quality standards.							Units	
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015		FY 2016
Target							8	8	Priority Watershed Areas
Actual									

A key performance measure for the Water Pollution Control Program is the number of water body segments identified by states in 2002 as not attaining standards, where water quality standards are now fully attained. State partners play a key role in developing and implementing plans and documenting progress. The EPA is replacing their performance measure that focused on the number of TMDLs established and approved. The EPA is transitioning to a new approach to track water quality progress using the National Hydrography Dataset Plus (NHD*Plus*) to calculate priority watershed areas using the NHD*Plus* ‘catchments’ to describe where states have developed TMDLs, alternative restoration and protection approaches. This approach provides a consistent method for measuring progress at the local scale, while allowing for tighter integration with data and assessments at the state and national scale.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$18,358.0) This program change reflects an increase for states and tribes to implement water pollution control programs and strengthen their nutrient management efforts consistent with the EPA’s 2011 Framework for state nutrient reduction.

Statutory Authority:

Clean Water Act (CWA), 33 U.S.C. 1256 – Section 106.

Categorical Grant: Pollution Prevention

Program Area: Categorical Grants

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Promote Pollution Prevention

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$4,853.4</i>	<i>\$4,765.0</i>	<i>\$4,765.0</i>	<i>\$0.0</i>
Total Budget Authority / Obligations	\$4,853.4	\$4,765.0	\$4,765.0	\$0.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Pollution Prevention (P2) Categorical Grants program augments the counterpart P2 program under the Environmental Program and Management (EPM) account.

Implementing the Pollution Prevention Act (PPA) of 1990, the Pollution Prevention (P2) program is one of the EPA’s primary tools for advancing environmental stewardship by federal, state and Tribal governments, businesses, communities and individuals. The P2 program seeks to alleviate environmental problems by achieving significant reductions in the generation of hazardous releases to air, water, and land; reductions in the use or inefficient use of hazardous materials; reductions in the generation of greenhouse gases; and reductions in the use of water. At the same time, the P2 Program helps businesses and others reduce costs as a result of implementing these preventative approaches. The P2 program’s efforts advance the agency’s priorities to pursue sustainability, take action on climate change, make a visible difference in communities, and ensure chemical safety.

The P2 Program accomplishes its mission by:

- Fostering the development of P2 solutions to environmental problems that eliminate or reduce pollution, waste and risks at the source, such as: cleaner production processes and technologies, safer, “greener” materials and products, and improved practices; and,
- Promoting the adoption, use and market penetration of those solutions through such activities as providing technical assistance and demonstrating the benefits of P2 solutions.

For more information about the EPA’s P2 program, please see <http://www.epa.gov/p2/>.

FY 2016 Activities and Performance Plan:

In FY 2016, the P2 Categorical Grants program will continue supporting states, state entities (i.e., colleges and universities) and federally-recognized tribes and intertribal consortia in their efforts to help businesses identify environmental strategies and solutions for reducing or eliminating pollution at the source. The program supports projects that reflect comprehensive and coordinated

P2 planning and implementation efforts within the state or tribe to ensure that businesses and industry have ample opportunities to implement pollution prevention as a cost-effective way of meeting or exceeding federal and state regulatory requirements. The EPA provides grant funding to support technical assistance, and also addresses priority environmental problems aimed at reducing hazardous materials and hazardous pollution. In FY 2016, the program as well as states, tribes and other grantees may choose to focus on one or more of the following P2 national emphasis areas: climate change mitigation, food manufacturing, or community level hazardous materials source reduction.

P2 grants are awarded by the Regional Offices. This enables the agency to focus resources on targeted regional priorities. In addition to supporting traditional P2 technical assistance programs, many states and tribes use P2 grants to assist businesses by initiating regulatory integration projects to implement prevention strategies in core media programs, train regulatory staff on P2 concepts and best practices and examine opportunities for incorporating pollution prevention into permits, inspections and enforcement. States and tribes also have established pollution prevention programs in non-industrial sectors such as hospitality, agriculture, energy, health and transportation.

The EPA also will continue to support the Pollution Prevention Information Network (PPIN) grant program. These grants fund the services of a network of regional centers, collectively called the Pollution Prevention Resource Exchange (P2Rx), that provide high quality, peer-reviewed information to state and Tribal technical assistance centers. In FY 2016, the EPA will continue to strengthen P2Rx through enhanced documentation and measurement of results, including further emphasis on describing outputs and outcomes for all activities. The EPA will continue to seek increased functionality of the centers to deliver improved services to P2Rx customers. Grantee activities must support one or more of the P2 national emphasis areas and the national P2 information network.

For more information, please see <http://www.epa.gov/p2/pubs/grants/index.htm#p2grant> and <http://www.p2rx.org>.

Performance Targets:

Work under this program supports performance results listed in the P2 program description under the Environmental Programs and Management account and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section. There are no additional performance measures specific only to the grants component of the P2 program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- No change in program funding.

Statutory Authority:

Pollution Prevention Act (PPA) of 1990, 42 U.S.C. 13101 et seq. -- Sections 6601-6610; Toxic Substances Control Act (TSCA), 15 U.S.C. 2601 et seq.

Categorical Grant: Public Water System Supervision (PWSS)

Program Area: Categorical Grants

Goal: Protecting America's Waters

Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$102,692.9</i>	<i>\$101,963.0</i>	<i>\$109,700.0</i>	<i>\$7,737.0</i>
Total Budget Authority / Obligations	\$102,692.9	\$101,963.0	\$109,700.0	\$7,737.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Public Water System Supervision (PWSS) program provides grants to states and tribes with primary enforcement authority (primacy) to implement and enforce the National Primary Drinking Water Regulations, as well as to build system capacity to reliably provide safe water to their consumers. These grants help to ensure the safety of the nation's drinking water resources while protecting public health. The states are the primary implementers of the national drinking water program and work with the systems within their jurisdiction to achieve and maintain compliance with drinking water rules.

The National Primary Drinking Water Regulations set forth health-based standards, monitoring, reporting and recordkeeping, sanitary survey, compliance tracking, and enforcement elements to ensure that the nation's drinking water supplies do not pose adverse health effects. These grants are a key implementation tool under the Safe Drinking Water Act and support the states' role in a federal/state partnership of ensuring safe drinking water supplies to the public. States use these grant funds to fund drinking water program personnel who:

- Provide technical assistance to owners and operators of water systems;
- Manage public water system data and submit that data into the new Safe Drinking Water Information System (SDWIS) Prime (formerly SDWIS Next Gen);
- Share sampling results with the public;
- Respond to violations;
- Certify laboratories;
- Conduct laboratory analyses;
- Conduct sanitary surveys;
- Respond to questions from the public;
- Certify operators; and,
- Work one-on-one with small systems to build water system capacity.

Some states and tribes do not have primary enforcement authority. Funds allocated to the State of Wyoming, the District of Columbia, and Indian tribes without primacy are used to support direct

implementation activities by the EPA or for developmental grants to Indian tribes to develop capacity for primacy.²⁵

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will request an additional \$7.7 million in PWSS grants to augment state and Tribal efforts to assist water systems in meeting existing drinking water regulations and preparing for the implementation of the new Revised Total Coliform Rule (RTCR). Since all public water systems must comply with the RTCR by April 2016, states will utilize a portion of these additional resources to both augment assistance efforts to systems, especially small systems, in complying with the new RTCR requirements and conduct assessments. States and tribes will work to support systems to acquire and maintain basic capabilities and expertise to provide public health protection such as providing operator training, taking compliance samples, and working with systems to address sanitary survey deficiencies.

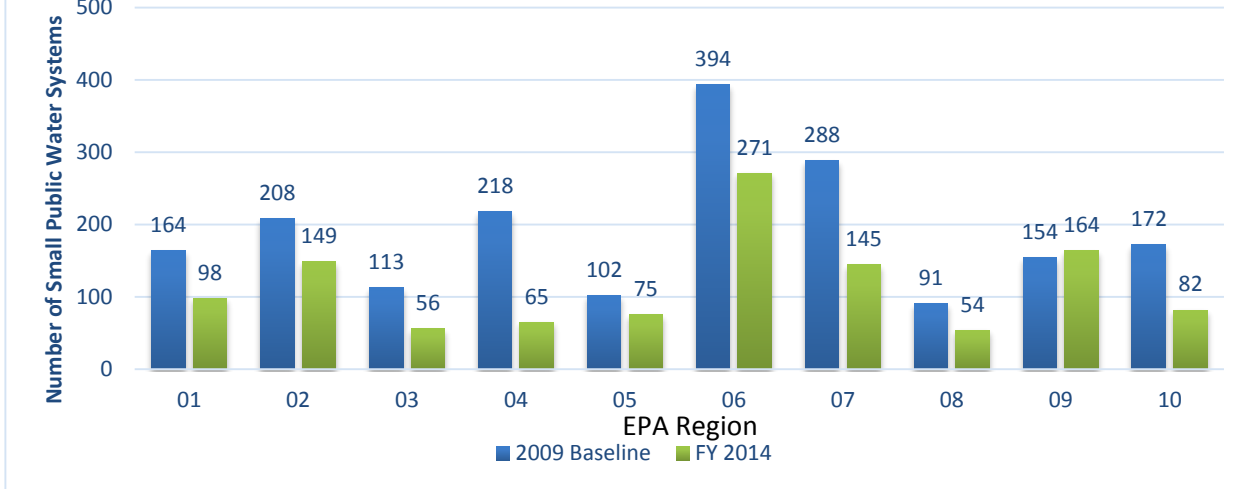
These resources also will be used by states and tribes as they provide technical assistance and training to help meet the continued needs of small water systems. Many small water systems continue to face challenges to reliably provide safe drinking water. Additional grant funds will enable states to assist these systems through such activities as developing asset management programs and improved rate structures, planning for drought and floods, evaluating opportunities for greater water reuse, and facilitating system partnerships to achieve greater efficiencies. The grants to states and tribes have been successful in helping public water systems achieve compliance with standards as well as decreasing the number of small systems that have repeat health-based violations of standards by 39 percent since 2009 (see Figure 1), although small system challenges remain. In FY 2014, 91 percent of community water systems (CWSs) met all applicable health-based standards, surpassing the performance target of 90 percent. The program also ensured safe drinking water, as 93 percent of the population served by CWSs received drinking water that met all applicable health-based drinking water standards, surpassing the FY 2014 performance target of 92 percent.

²⁵ For more information see:

<http://www.epa.gov/safewater/pws/pwss.html>

<https://www.cfda.gov/index?s=program&mode=form&tab=step1&id=cca066b833c552bdf3c9ff011e576c7f>

Figure 1. Number of Small Public Water Systems by Region with Repeat Health-based Violations of the Following Drinking Water Regulations: Nitrate/nitrite, Disinfectants and Disinfectant Byproducts, Surface Water Treatment, and Total Coliform Rules.



States and tribes will use their PWSS funds to ensure that:

- Public drinking water systems of all sizes achieve or remain in compliance;
- Public drinking water systems of all sizes are meeting recent regulatory requirements (e.g., Long-Term 2 Enhanced Surface Water Treatment Rule, Stage 2 Disinfectants and Disinfection Byproducts Rule, and Ground Water Rule);
- Public water systems of all sizes will be prepared to comply with the Revised Total Coliform Rule in 2016;
- Data are complete, accurate and submitted to the EPA in a timely manner, and that primacy agencies are transitioning to SDWIS Prime;
- Public water systems of all sizes with violations return to compliance as quickly as possible; and,
- All systems undergo sanitary surveys conducted according to the required schedules.

Performance Targets:

Measure	(aa) Percent of population served by CWSs that will receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	90	90	91	91	92	92	92	92	Population
Actual	92.1	92	93.2	94.7	92	93			

Measure	(apm) Percent of community water systems that meets all applicable health-based standards through approaches including effective treatment and source water protection.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	90	90	90	90	90	90	90	90	Systems
Actual	89.1	89.6	90.7	91	91	91			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$7,737.0) This program change reflects the need to both augment state and Tribal assistance efforts to systems, especially small systems, in complying with the new RTCR requirements and conduct assessments. Additional grant funds will enable states to assist systems through such activities as developing asset management programs and improved rate structures, planning for drought and floods, evaluating opportunities for greater water reuse, and facilitating system partnerships to achieve greater efficiencies.

Statutory Authority:

SDWA, 42 U.S.C. §300f–300j–9 as added by Public Law 93–523 and the amendments made by subsequent enactments, Section 1443.

Categorical Grant: Radon

Program Area: Categorical Grants

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	\$8,602.9	\$8,051.0	\$0.0	(\$8,051.0)
Total Budget Authority / Obligations	\$8,602.9	\$8,051.0	\$0.0	(\$8,051.0)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

Indoor radon is the second-leading cause of lung cancer and the leading cause of lung cancer for non-smokers. The EPA’s non-regulatory radon program promotes public action to reduce the health risk from indoor radon. The EPA has assisted states and tribes through technical support and the State Indoor Radon Grants (SIRG) program, which provided categorical grants to develop, implement, and enhance programs that assess and mitigate radon risk. Section 306 of the Indoor Radon Abatement Act (IRAA) authorizes radon grant assistance to states, as defined by TSCA Title III. The EPA targeted this funding to support states with the greatest populations at highest risk. The average annual award per state has been \$160,000. The EPA supplemented grant dollars with technical support to transfer “best practices” among states that promote effective program implementation across the nation.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will eliminate funding for the SIRG program and focus the agency’s efforts toward maintaining public outreach efforts, encouraging action in the marketplace and driving progress at the federal level. Exposure to radon gas continues to be an important risk to human health, and over the 27 years of its existence, the EPA's radon program has provided important guidance and significant funding to help states establish their own programs.

Performance Targets:

Work under this program also supports performance results in the Indoor Air: Radon Program under the Environmental Programs and Management Tab and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section. Currently, there are no performance targets for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$8,051.0) This program change eliminates funding for the State Indoor Radon Grants (SIRG) program. State and local radon programs will continue efforts to raise awareness and mitigate the risk of radon. Over the 27 years of the program, the grants have worked to promote the mitigation of radon in homes with high levels, building homes with radon resistant new construction, and mitigating schools with high levels or using radon resistant new construction.

Statutory Authority:

CAA Amendments of 1990; Radon Gas and Indoor Air Quality Research Act; Title IV of the SARA of 1986; TSCA, Section 6, Titles II and Title III (15 U.S.C. 2605 and 2641-2671); and IRAA, Section 306.

Categorical Grant: State and Local Air Quality Management

Program Area: Categorical Grants

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Address Climate Change; Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$229,785.7</i>	<i>\$228,219.0</i>	<i>\$268,229.0</i>	<i>\$40,010.0</i>
Total Budget Authority / Obligations	\$229,785.7	\$228,219.0	\$268,229.0	\$40,010.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

This program provides funding for state air programs, as implemented by multi-state, state, and local air pollution control agencies. Section 103 of the Clean Air Act (CAA) provides the EPA with the authority to award grants to a variety of agencies, institutions, and organizations, including the air pollution control agencies funded from the STAG appropriation, to conduct and promote certain types of research, investigations, experiments, demonstrations, surveys, studies, and training related to air pollution. Section 105 of the CAA provides the EPA with the authority to award grants to state and local air pollution control agencies to develop and implement continuing environmental programs for the prevention and control of air pollution, for the implementation of National Ambient Air Quality Standards (NAAQS) set to protect public health and the environment, and for improving visibility in our national parks and wilderness areas (Class I areas). The continuing programs funded under Section 105 include development and implementation of emission reduction measures, development and operation of air quality monitoring networks, and a number of other air program areas. Section 106 of the CAA provides the EPA with the authority to fund interstate air pollution transport commissions to develop or carry out plans for designated air quality control regions.

FY 2016 Activities and Performance Plan:

In FY 2016, states with approved or delegated permitting programs will continue to implement NAAQS and GHG-related permitting requirements as part of their programs. The agency is working with states to implement common sense permitting requirements on the largest emitters of GHGs that otherwise require CAA permits. The EPA also will continue to undertake actions required as a result of the Supreme Court’s 2014 decision on EPA’s Tailoring Rule. Additionally, the agency will work with states to implement their obligations under section 111 (b) and (d) of the Clean Air Act, with regard to GHG emissions from electric utility generating units. This is a significant undertaking involving extensive and unprecedented work with states and territories to develop necessary regulatory infrastructure, provide technical assistance, and build capacity to ensure that states can successfully develop and implement their required compliance plans. States will require substantial resources to conduct the myriad actions, including extensive stakeholder outreach and engagement, to develop approvable plans. In FY 2016, the agency is investing an additional \$25 million to support this work.

State Implementation Plans (SIPs) provide a blueprint for the programs and activities that states carry out to achieve and maintain the NAAQS. There are several events that trigger SIP updates. For example, when the EPA promulgates a new NAAQS, affected states must update certain parts of their SIPs within three years. In FY 2016, states will be reviewing their SIPs for ozone if the ozone NAAQS is revised in 2015. Also, affected states will be completing development of attainment SIPs for areas designated nonattainment for the 2012 fine particle (PM_{2.5}) NAAQS and the 2010 SO₂ NAAQS.

States will continue their focus on implementing the 2008 8-hour ozone NAAQS, the 2008 lead NAAQS, the 2010 1-hour nitrogen dioxide (NO₂) NAAQS, and the 2010 1-hour sulfur dioxide (SO₂) NAAQS. As appropriate, states also will continue implementing the previous PM_{2.5} and ozone NAAQS, the 1997 annual PM_{2.5} NAAQS, the 2006 24-hour PM_{2.5} NAAQS, and the 1-hour and 1997 8-hour ozone NAAQS (through anti-backsliding requirements). SIP preparation for some pollutants is complicated, due to the regional nature of air pollution that requires additional and more detailed modeling, refined emissions inventories, and greater stakeholder involvement. In FY 2016, the EPA will work with states to develop approvable SIP submissions and provide technical assistance in implementing their plans for the NAAQS and regional haze.

The multi-pollutant monitoring site network (NCore) serves multiple objectives such as measuring long-term trends of air pollution, validating models, and providing input to health and atmospheric science studies. The EPA will continue to work closely with states to implement this network of approximately 80 stations across the nation. NCore stations provide measurements for particles, including filter-based and continuous mass for PM_{2.5}; chemical speciation for PM_{2.5}; and PM_{10-2.5} mass. Stations also measure gases such as carbon monoxide (CO), SO₂, nitrous oxides, and ozone, and record basic meteorology.

In 2015, the EPA plans to continue its review of the ozone NAAQS monitoring requirements. As part of this review, the EPA also is doing an assessment of the Photochemical Assessment Monitoring Stations (PAMS); specifically looking at program objectives; network design; and VOC, carbonyl and nitrogen measurements and technologies. The rulemaking process will determine whether changes in the standard are necessary, and, if so, the nature of those changes. Additionally, as a result of the revised PM NAAQS, a small number of PM monitors will need to be moved to measure fine particles near heavily traveled roads.

In 2010, the EPA revised the monitoring requirements for the NO₂ NAAQS which require the establishment of near-road monitoring sites in cities with populations of 500 thousand or greater. These revisions to requirements support the EPA's work with states on the NO₂ monitoring network design and continued implementation of a phased approach to the monitoring program that will continue deployment of near-road sites until 2017.

States are required to establish CO monitors at a subset of the near-road monitoring sites required by the NO₂ NAAQS in a transition that will span several years, ending January 1, 2017. The EPA expects that this network transition will involve the relocation of existing CO monitors.

The development of a complete emission inventory is an important step in an air quality management process. Emission inventories are used to help determine significant sources of air

pollutants and establish emission trends over time, target regulatory actions, and estimate air quality through computer dispersion modeling. An emission inventory includes estimates of the emissions from various pollution sources in a specific geographical area. This program enables states to develop these inventories and submit data to the EPA. The EPA works with its state partners to quality assure the data and to prepare for the release of the National Emission Inventory.

This program also supports state and local agency capabilities to provide air quality forecasts that provide the public with information they can use to make daily lifestyle decisions to protect their health. This information allows people to take precautionary measures to avoid or limit their exposure to unhealthy levels of air quality. In addition, many communities use forecasts for initiating air quality “action” or “awareness” days, which seek voluntary participation from the public to reduce pollution and improve local air quality. Current air quality forecasting efforts focus on predicting ozone and PM_{2.5}.

This program also supports state and local efforts to characterize air toxics problems and take measures to reduce health risks from air toxics, most often through implementation of EPA regulations. New and revised New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) standards have increased the workload for states as they are the delegated authority to enforce many of these standards that will reduce air toxics and other pollution from stationary sources. These standards will create important and lasting improvements in public health; additional support is needed by states to understand and implement these new standards. This funding also supports characterization work that includes collection and analysis of emissions data and monitoring of ambient air toxics. In FY 2016, funds for air toxic ambient monitoring also will support the National Air Toxics Trends Stations (NATTS), consisting of 27 air toxics monitoring sites operated and maintained by state and local air pollution control agencies across the country, and the associated quality assurance, data analysis, and methods support. Funds also will support the Community Scale Air Toxics Monitoring Program - a program designed to help local communities identify and profile air toxics sources, develop and assess emerging measurement methods, characterize the degree and extent of local air toxics problems, and track progress of air toxics reduction activities. Finally, this program supports state efforts to monitor compliance and enforce MACT standards for major sources and regulations to control emissions from area sources.

Under the regional haze program, states will be implementing control measures required from their initial visibility improvement SIPs and submitting plans to meet the five-year reporting requirements to ensure that they are making progress toward their visibility improvement goals. Also, comprehensive regional haze SIP revisions are due in 2018, and states will be planning the extensive engineering, modeling, and cost analyses necessary to make continued progress toward the goal of natural conditions in 2064 for the wilderness areas and national parks designated by Congress for visibility efforts.

The EPA will begin transitioning the funding of the PM_{2.5} monitoring network, currently funded under Section 103 authority of the CAA, which provides 100 percent federal funding, to section 105 authority of the CAA, which provides cost-sharing between the EPA and the states at 60

percent and 40 percent respectively. The phased transition will span four years, when the network will be completely funded under section 105 authority.

Performance Targets:

Measure	(M92) Cumulative percentage reduction in the number of days with Air Quality Index (AQI) values over 100 since 2003, weighted by population and AQI value.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	29	33	37	50	80	80	80	80	Percent Reduction
Actual	59	70	73	72	74	Data Avail 12/2015			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$15,010.0) This program increase supports continuing environmental state programs responsible for carrying out air quality implementation activities, as described above.
- (+\$25,000.0) This program increase supports states as they implement the requirements of the Clean Power Plan. Of this increase, \$17.5 million will be provided to support states' Clean Power Plan modeling, technical analysis, and training efforts under CAA Section 103 authority and \$7.5 million will be allocated to states for Clean Power Plan activities under CAA Section 105 authority. States will be required to submit grant workplans outlining specific Clean Power Plan activities to be conducted under Section 103 authority supporting state plan development. States also will be required to outline specific Clean Power Plan activities to be conducted under Section 105 authority as part of state continuing environmental program grant workplans.

Statutory Authority:

CAA, Sections 103, 105, and 106.

Categorical Grant: Toxics Substances Compliance

Program Area: Categorical Grants

Goal: Protecting Human Health and the Environment by Enforcing Laws and Assuring Compliance

Objective(s): Enforce Environmental Laws to Achieve Compliance

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$4,951.7</i>	<i>\$4,919.0</i>	<i>\$4,919.0</i>	<i>\$0.0</i>
Total Budget Authority / Obligations	\$4,951.7	\$4,919.0	\$4,919.0	\$0.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Toxic Substances Compliance Monitoring Cooperative Agreement program builds environmental partnerships with states and tribes to strengthen their ability to address environmental and public health threats from toxic substances such as Polychlorinated Biphenyls (PCBs), asbestos, and lead-based paint. These chemicals have been identified as harmful to human health and the environment. Exposure to these chemicals can present long term adverse health effects to humans, if they are exposed. Examples of potential exposure include:

- Asbestos in schools can effect children and long-term employees exposed to friable fibers. Children and employees may be impacted with respiratory health and cancer diseases 15 years after exposure.²⁶
- PCBs are bioaccumulative and are never released from the human body. Accumulation over time can cause cancer.
- Lead-based paint can cause high blood levels which can affect neurological development in young children.

Cooperative agreements are used to fund inspections, compliance monitoring activities, and enforcement capabilities to prevent or eliminate unreasonable risks to health or the environment.

These funds are used to:

- Encourage states to establish their own programs for lead-based paint and asbestos (waiver) programs. These states use the funds for inspections, compliance monitoring, and enforcement activities.
- Provide cooperative agreements to states and tribes to conduct inspections and compliance monitoring activities to ensure compliance with the PCB regulations, the

²⁶ For additional information, refer to: www.epa.gov/compliance/monitoring/programs/tsca/index.html

Asbestos-in-Schools requirements, the Model Accreditation Plan, Asbestos Ban and Phase Out Rule,²⁷ the Toxic Substances Control Act Asbestos Worker Protection Rule, and lead-based paint regulations. States receiving a cooperative agreement for the PCB and/or asbestos programs must contribute 25 percent of the total cost of the program being funded.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA's Enforcement and Compliance Assurance program will continue to award state and Tribal cooperative agreements to assist in the implementation of compliance and enforcement provisions of the Toxic Substances Control Act. During FY 2016, the EPA is scheduled to award 73 grants to states; 26 grants for TSCA Asbestos, 38 grants for Lead-based Paint, and 9 PCB grants. For all three programs (PCBs, Asbestos, and Lead-based paint), funds are used to conduct inspections and compliance monitoring activities, and where appropriate, enforce waiver and lead-based paint programs.

The inspections conducted through the TSCA Compliance Monitoring Cooperative Agreement grants ensures protection of thousands of school children, teachers, and staff from asbestos exposure; proper renovation operations for workers and property owners during indoor painting/renovation activities; ensuring the companies and their workers are properly trained in health and safety and apply that training when conducting LBP renovations; and ensuring compliance with the PCB program at facilities that use PCBs in products and treatment/disposal facilities that manage/destroy the chemical. In addition, these funds may be used to train inspectors; to provide inspection equipment including sampling and personal protective equipment; and to fund travel and salary costs associated with conducting inspections. The compliance monitoring activities conducted by the states will be a cooperative endeavor addressing the priorities of the federal Toxic Substances Control Act program and state issues.

Performance Targets:

Work under this program supports the strategic objective Enforce Environmental Laws. Currently, there are no performance measures specific to this program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- No change in program funding.

Statutory Authority:

Toxic Substances Control Act.

²⁷ 40 CFR part 763, subpart I.

Categorical Grant: Tribal Air Quality Management

Program Area: Categorical Grants

Goal: Addressing Climate Change and Improving Air Quality

Objective(s): Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$12,442.3</i>	<i>\$12,829.0</i>	<i>\$12,829.0</i>	<i>\$0.0</i>
Total Budget Authority / Obligations	\$12,442.3	\$12,829.0	\$12,829.0	\$0.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

This program includes funding for Tribal air pollution control agencies and/or tribes. Through Clean Air Act (CAA) Section 105 grants, tribes may develop and implement programs for the prevention and control of air pollution and implementation of national primary and secondary National Ambient Air Quality Standards (NAAQS). Through CAA Section 103 grants, Tribal air pollution control agencies or tribes, colleges, universities, and multi-tribe jurisdictional air pollution control agencies may conduct and promote research, investigations, experiments, demonstrations, surveys, studies, and training related to ambient or indoor air pollution in Indian country.

FY 2016 Activities and Performance Plan:

Tribes will assess environmental and public health conditions in Indian Country by developing emission inventories and, where appropriate, siting and operating air quality monitors. Tribes will continue to develop and implement air pollution control programs for Indian country to prevent and address air quality concerns. The EPA will continue to fund organizations for the purpose of providing technical support, tools, and training for tribes to build capacity to develop and implement programs, as appropriate. A key activity is to work to reduce the number of days in violation of the Air Quality Index. This program supports the agency's priority of building strong Tribal partnerships with individual tribes and the National Tribal Air Association (NTAA). The NTAA is extremely concerned about the tribes' ability to collect and provide valuable monitoring data and the health of their Tribal members.

In FY 2016, continued implementation of the Tribal New Source Review (NSR) rule will require significant and focused resources for tribes. The EPA has the primary responsibility for implementing the rule. The tribes may opt to take an active role in implementation by development of a Tribal Implementation Plan (TIP), by management of the program under the EPA's authority, or by active participation in the permit review and outreach process.

The EPA intends to take final action on a supplemental proposal to its Clean Power Plan by summer 2015. The supplemental rule proposes to establish emission performance goals covering the four potentially affected power plants in Indian country, as well as any subsequently identified

similarly situated power plants. In FY 2016, the agency intends to work with tribes with renewable energy and energy efficiency efforts in the planning process for complying with the rule.

Performance Targets:

Work under this program supports the performance results in the Federal Support for Air Quality Management Program under the Environmental Programs and Management Tab and can be found in the Eight-Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- No change in program funding.

Statutory Authority:

CAA, Sections 103 and 105.

Categorical Grant: Tribal General Assistance Program

Program Area: Categorical Grants

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Strengthen Human Health and Environmental Protection in Indian Country

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$68,241.1</i>	<i>\$65,476.0</i>	<i>\$96,375.0</i>	<i>\$30,899.0</i>
Total Budget Authority / Obligations	\$68,241.1	\$65,476.0	\$96,375.0	\$30,899.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

In 1992, Congress established the Indian Environmental General Assistance Program (GAP) to provide grants and technical assistance to tribes to cover costs of planning, developing, and establishing Tribal environmental protection programs consistent with other applicable provisions of law administered by the EPA, providing for enforcement of such laws by tribes on Indian lands. Funding is provided under GAP for the administrative, technical, legal, enforcement, communication, and outreach capacities tribes need to effectively administer environmental regulatory programs that the EPA may delegate to tribes. Please see <http://www.epa.gov/aieo/gap.htm> for more information.

Some uses of GAP funds include the following:

- Assessing the status of a tribe's environmental conditions;
- Developing appropriate environmental programs and ordinances;
- Developing the capacity to administer environmental regulatory programs that the EPA may delegate to a tribe;
- Conducting public education and outreach efforts to ensure that Tribal communities are informed and able to participate in environmental decision-making; and,
- Promoting communication and coordination among federal, state, local, and Tribal environmental officials; including developing the ability to meaningfully participate in Tribal consultation activities with the EPA on environmental actions and issues.

GAP currently supports Tribal capacity through financial assistance to more than 520 Indian Tribal governments and intertribal consortia. GAP has helped tribes receive 95 program delegations, approvals, and primacies for tribes to administer a variety of programs across a number of statutes, including the Clean Water Act, Safe Drinking Water Act, and the Clean Air Act. Tribes also have built their capacity to assist the EPA in implementing federal environmental programs in the absence of an EPA approved Tribal program through Direct Implementation Tribal Cooperative Agreements (DITCAs). As of FY 2014, 24 tribes had active DITCAs supporting the EPA's direct implementation activities. Similarly, the EPA also has been able to certify Tribal inspectors for various federal compliance programs. GAP also supported tribes with

the development of their waste management programs with over 147 tribes having established Integrated Waste Management Plans.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA’s GAP grants will assist Tribal governments in building environmental protection program capacity to assess environmental conditions; utilize available federal, state, local, and other relevant environmental information; and build environmental programs tailored to Tribal needs. This funding request provides a stronger foundation of base funding for tribes to advance their environmental program capacity building and improve recruitment and retention of the qualified environmental professionals tribes need to establish applicable environmental programs.

In FY 2013, the EPA concluded a multi-year effort of responding to the Inspector General Audit Report, *Framework for Developing Tribal Capacity Needed in the Indian General Assistance Program* (Report No. 08-P-0083)²⁸ by implementing new guidance for the grant program entitled, “*Guidance on the Award and Management of General Assistance Agreements for Tribes and Intertribal Consortia.*”²⁹ This Guidance establishes an overall framework for tribes and the EPA to follow in building Tribal environmental capacity under GAP. Specifically, the Guidance requires more effective joint strategic planning through EPA-Tribal Environmental Plans (ETEPs) to document long-range Tribal environmental program development priorities. These strategic planning documents inform funding decisions by linking ETEP goals to annual GAP assistance agreement work plans and providing a mechanism to measure Tribal progress in meeting their program development goals.

In FY 2016, the EPA will continue to implement GAP under this new national framework and expand the number of ETEPs. A growing number of GAP grant work plans will reference these ETEPs and provide a means for tracking Tribal progress toward these long-term goals. By the end of FY 2016, the EPA plans to establish ETEPs with 70 percent of tribes receiving GAP assistance agreements. The EPA will maintain an emphasis on trainings (internal and external) to support implementation of the Guidance, providing technical assistance to GAP grant recipients, and developing other GAP Guidance implementation support materials.

Performance Targets:

Measure	(5PQ) Percent of Tribes implementing federal regulatory environmental programs in Indian country (cumulative).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	7	14	18	22	24	25	25	25	Percent
Actual	13	14	17	21	19	19			

²⁸ <http://www.epa.gov/oig/reports/2008/20080219-08-P-0083.pdf>

²⁹ <http://www.epa.gov/tp/GAP-guidance-final.pdf>

Measure	(5PR) Percent of Tribes conducting EPA approved environmental monitoring and assessment activities in Indian country (cumulative.)								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	23	42	52	54	57	58	58	58	Percent
Actual	40	50	52	54	56.5	Data Avail 09/2015			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$30,899.0) This program change will increase base funding for individual GAP grants. Tribes depend on Tribal GAP support to develop strong environmental programs and recruit and retain qualified environmental professionals. This additional support will allow Tribes to develop multiple media-specific environmental programs and also will ensure adequate resources for grantees to successfully implement EPA-Tribal Environmental Plans (ETEPs).

Statutory Authority:

Indian Environmental General Assistance Program Act, 42 U.S.C. § 4368b (1992), as amended.

Categorical Grant: Underground Injection Control (UIC)

Program Area: Categorical Grants
Goal: Protecting America's Waters
Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$10,470.6</i>	<i>\$10,506.0</i>	<i>\$10,506.0</i>	<i>\$0.0</i>
Total Budget Authority / Obligations	\$10,470.6	\$10,506.0	\$10,506.0	\$0.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The EPA's Underground Injection Control (UIC) grant program is implemented by federal, state, and Tribal government agencies that oversee underground injection activities in order to prevent contamination of underground sources of drinking water. Underground injection is the placement of fluids beneath the earth's surface in porous rock formations through wells or other similar conveyance systems. Billions of gallons of fluids are injected underground each year, including the majority of hazardous wastewater that is land-disposed. In recent years, the use of underground injection has expanded to include injection of water for later use, and injection for the long-term storage of carbon dioxide (CO₂).

When wells are properly sited, constructed, and operated, underground injection is an effective method of managing fluids. The Safe Drinking Water Act established the UIC program to provide safeguards so that injection wells do not endanger current and future underground sources of drinking water. The most accessible underground freshwater is stored in shallow geological formations (*i.e.*, shallow aquifers) and is the most vulnerable to contamination from improper practices.

The EPA provides financial assistance in the form of grants to states and tribes that have primary enforcement authority (primacy) to implement and manage Underground Injection Control programs. Eligible Indian tribes that demonstrate an intent to achieve primacy also may receive grants for the initial development of UIC programs and be designated for "Treatment as a State" if their programs are approved. Where a jurisdiction is unable or unwilling to assume primacy, the EPA uses grant funds for direct implementation of federal UIC requirements. The EPA directly implements programs in ten states and shares responsibility in seven states. The EPA also administers the UIC programs for all but two tribes.³⁰

³⁰ For more information, please visit:
<https://www.cfd.gov/index?s=program&mode=form&tab=step1&id=c1307f57fe8bec34f1a65660eff495a8&cck=1&au=&ck=>
and <http://water.epa.gov/type/groundwater/uic/index.cfm>

FY 2016 Activities and Performance Plan:

Ensuring safe underground injection of fluids, including waste fluids, is a fundamental component of a comprehensive source water protection program that, in turn, is a key element in the agency's multi-barrier approach to providing clean and safe drinking water. The UIC program continues to manage or close the approximately 500,000 shallow (Class V)³¹ injection wells to protect our groundwater resources. The requested funding allows for the implementation of the UIC program including for states and tribes to administer Underground Injection Control permitting programs, provide program oversight, implementation tools, and public outreach, and ensure that injection wells are safely operated.

In addition, the EPA will continue to process primacy applications and permit applications for carbon sequestration projects related to Class VI wells. States and the EPA also will process Underground Injection Control permits for other nontraditional injection streams such as desalination brines and treated waters injected for storage and recovered at a later time. Geologic Sequestration (GS) is the process of injecting CO₂ captured from an emission source (e.g., a power plant or industrial facility) into deep, subsurface rock formations for long-term storage. It is part of a process known as carbon capture and storage (CCS). The EPA's UIC program regulates underground injection of CO₂. In December 2010, a rule was finalized which established a new class of underground injection well—Class VI—with new federal requirements to allow the injection of CO₂ for the purpose of geologic sequestration while ensuring Underground Sources of Drinking Water (USDW) protection. The Class VI rule also provides a regulatory framework to implement a consistent approach to permitting geologic sequestration projects across the U.S. and supports the development of a potentially key climate change mitigation technology.

The EPA directly implements the Class VI geologic sequestration program, as no states have received approval for Class VI primacy either through a state UIC program revision or through a new application from states without any UIC primary enforcement authority. The EPA will continue to work with states interested in applying for Class VI primacy, and continue to carry out regulatory functions for Class VI geologic sequestration wells in most states, along with other classes of wells for which the EPA has direct implementation responsibility.

In 2014, the EPA released guidance on hydraulic fracturing to help ensure the benefit of energy development while not jeopardizing precious drinking water resources and environmental quality.³² The EPA will work to help states and tribes review complex data typically contained in UIC applications for hydraulic fracturing using diesel fuels. Funding also will be used to support locating and inspecting injection wells. In addition, the agency will support public meetings and follow up actions during permitting. This implementation support will ensure that authorized state and Tribal agencies are effectively managing and overseeing the rapidly growing energy sector while preventing endangerment of underground sources of drinking water.

The EPA also will work with the Department of Energy (DOE) and the Department of the Interior (DOI) to support state programs as they oversee hydraulic fracturing activities including Class II

³¹ As represented in calendar year 2011 annual inventory.

³² <http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/upload/epa816r14001.pdf>

disposal wells. In 2012, DOE, DOI, and the EPA agreed to a multi-agency research effort to address the highest-priority research questions associated with safely and prudently developing unconventional shale gas and tight oil resources. This effort focuses on timely, policy-relevant science directed to research topics where collaboration among the three agencies can be most effectively and efficiently conducted. The agencies will provide results and identify technologies that support sound policy decisions to ensure the prudent development of energy sources while protecting human health and the environment.

Performance Targets:

Measure	(aps) Percent of Classes I, II and III salt solution mining wells that have lost mechanical integrity and are returned to compliance within 180 days, thereby reducing the potential to endanger underground sources of drinking water.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				90	85	85	85	85	Wells
Actual				85	89	89			

Measure	(apt) Number of Class V motor vehicle waste disposal wells (MVWDW) and large capacity cesspools (LCC) [approximately 23,640 in FY 2010] that are closed or permitted (cumulative).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target				20,840	25,225	25,225	25,225	25,225	Wells
Actual				25,225	26,027	26,560			

In FY 2014, 89 percent of Class I, II and III wells that lost mechanical integrity were returned to compliance within 180 days, thereby reducing the potential to endanger underground sources of drinking water. Also in FY 2014, the cumulative number of Class V motor vehicle waste disposal wells (MVWDW) and large capacity cesspools (LCC) that were closed or permitted reached 26,560 up 533 wells from FY2013. These measures serve as an indicator of the program’s effectiveness in preventing contamination of underground sources of drinking water and protecting public health.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- No change in program funding.

Statutory Authority:

SDWA, 42 U.S.C. §300j-2, Section 1443.

Categorical Grant: Underground Storage Tanks

Program Area: Categorical Grants

Goal: Cleaning Up Communities and Advancing Sustainable Development

Objective(s): Preserve Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$1,535.9</i>	<i>\$1,498.0</i>	<i>\$1,498.0</i>	<i>\$0.0</i>
Total Budget Authority / Obligations	\$1,535.9	\$1,498.0	\$1,498.0	\$0.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The EPA’s underground storage tanks (UST) state and Tribal assistance grant (STAG) program provides funding for grants to states³³ under Section 2007 of the Solid Waste Disposal Act to protect human health and the environment by preventing releases from USTs. This work supports the EPA’s cross-agency strategy of making a visible difference in communities and the people living and working near UST sites across the country by working with state, Tribal, and local partners to prevent releases from underground storage tanks and protect precious water resources.

Specifically, these resources support core program activities, as well as leak prevention activities under Title XV, Subtitle B of the Energy Policy Act of 2005 (EPAct). STAG grants to states focus attention on the need to bring all UST systems into compliance with release detection and release prevention requirements and assist states in continuing to implement provisions of the EPAct. States will continue to use the UST categorical grant funding to implement their leak prevention and detection programs. With these UST categorical grants, states will fund such activities as: seeking state program approval to operate the UST program in lieu of the federal program; approving specific technologies to detect leaks from tanks; ensuring that tank owners and operators are complying with notification and other requirements; ensuring equipment compatibility; conducting inspections; and implementing operator training. STAG funds meet a critical need in the UST program and fill a gap left by leaking underground storage tank (LUST) prevention assistance agreement funding. The EPAct expanded the eligible use of LUST funds to include certain release prevention and leak detection activities, but it did not authorize LUST funds for all prevention and detection activities. STAG funds provide resources for states that do not have sufficient state resources to fund non-EPAct core programs.

Preventing UST releases is more efficient and less costly than cleaning up releases after they occur. Since the beginning of the UST program, preventing UST releases has been one of the program’s primary goals. Potential adverse effects from chemicals such as benzene, methyl-tertiary-butyl-ether, alcohols, or lead scavengers in gasoline and the cost to clean up these contaminants underscore the importance of preventing UST releases and complying with UST

³³ States as referenced here also include the District of Columbia and five territories as described in the definition of state in the Solid Waste Disposal Act.

requirements.³⁴ Even a small amount of petroleum released from an underground storage tank can contaminate groundwater, the drinking water source for many Americans. Over the history of the UST program, there have been over 521,000 releases confirmed and thousands of new releases are discovered each year, yet the EPA and our partners have made major progress in reducing the number of new releases.

Over the duration of the program, the EPA found that lack of proper UST system operation and maintenance is a main cause of releases.^{35,36} As a result, the EPA in FY 2012 proposed revisions to the UST regulations that address these and other important issues.³⁷ While the agency expects to finalize the revised UST regulations in FY 2015, the EPA and the UST stakeholders will implement these new provisions in FY 2016.

Twice each year, the EPA collects data regarding UST performance measures and makes the data publicly available. The data include information such as the number of active and closed tanks, releases confirmed, cleanups initiated and completed, facilities in compliance with UST requirements, and inspections. The EPA compiles the data and presents it in table format for all states, territories, and Indian country. See www.epa.gov/oust/cat/camarchv.htm.

Since 2007, the EPA has placed an increased emphasis on ensuring compliance through increased frequency of inspections and other EPA Act provisions.³⁸ Each of the nation's 571,000 federally regulated USTs must be inspected every three years.³⁹ During this time, compliance rates have increased and there has been a significant decrease in newly confirmed releases.

The annual number of confirmed UST releases dropped about 10 percent from 7,570 in FY 2007 to 6,847 in FY 2014. Confirmed releases remain low due to significant release prevention efforts, such as frequent inspections. Continued rigorous prevention and detection activities are necessary to maintain our progress in limiting future confirmed releases.

FY 2016 Activities and Performance Plan:

End of year FY 2014 data show:

- Releases are continuing to occur, with 6,847 reported for FY 2014.
- The program exceeded the FY 2014 performance measure of 70 percent significant operational compliance; at the end of FY 2014, 72.5 percent of the approximately 205,000 federally regulated UST facilities were in compliance. However, approximately 28 percent still need to attain and maintain compliance.

³⁴ See Title XV, Subtitle B of the Energy Policy Act of 2005.

³⁵ Petroleum Releases at Underground Storage Tank Facilities in Florida, Peer Review Draft, US EPA/OUST, March 2005.

³⁶ Evaluation of Releases from New and Upgraded Underground Storage Tanks, Peer Review Draft, US EPA/OUST, August 2004.

³⁷ See <http://www.gpo.gov/fdsys/pkg/FR-2011-11-18/pdf/2011-29293.pdf>

³⁸ See confirmed releases and compliance rate charts in the LUST prevention program project description. For more information, see: http://www.epa.gov/oust/fedlaws/epact_05.htm.

³⁹ For more information, see: <http://www.epa.gov/swrust1/cat/ca-13-34.pdf>

In FY 2016, STAG funding will continue to support compliance with release detection and release prevention requirements, as well as implementation of EPCRA provisions⁴⁰ and the revised UST regulations. Funding in the STAG account is primarily intended for states' core UST prevention activities, which are not LUST eligible. Examples include compliance assistance, state program approvals, and technical equipment reviews and approvals.

Performance Targets:

Work under this program also supports performance results in LUST Prevention, which is available in the Eight-Year Performance Array.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- No change in program funding.

Statutory Authority:

Solid Waste Disposal Act of 1976, as amended by the Superfund Amendments and Reauthorization Act of 1986 (Subtitle I), Section 2007(f), 42 U.S.C. 6916(f)(2), and the Energy Policy Act, Section 9011, 42 U.S.C. 6901 et seq.

⁴⁰ For more information on grant guidelines under EPCRA, see: http://www.epa.gov/oust/fedlaws/epact_05.htm.

Categorical Grant: Wetlands Program Development

Program Area: Categorical Grants

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$12,290.5</i>	<i>\$14,661.0</i>	<i>\$19,661.0</i>	<i>\$5,000.0</i>
Total Budget Authority / Obligations	\$12,290.5	\$14,661.0	\$19,661.0	\$5,000.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Wetland Program Development Grants (WPDGs) assist states, tribes, and local governments in meeting the national goal of an overall increase in the acreage and improved condition of wetlands. The program's grants are used to develop new or refine existing state and Tribal wetland programs in one or more of the following areas: (1) monitoring and assessment; (2) voluntary restoration and protection; (3) regulatory programs, including Section 401 certification and Section 404 assumption;⁴¹ and (4) wetland water quality standards.

States and tribes develop program elements based on their goals and resources. Grants support development of state and Tribal wetland programs that further the goals of the Clean Water Act and improve water quality in watersheds throughout the country. Grants are awarded on a competitive basis under the authority of Section 104(b)(3) of the Clean Water Act. Funding is split among the EPA Regional Offices according to the number of states and territories per Regional Office. Each Regional office is required, by regulation, to compete the award of these funds to states, tribes, local governments, interstate agencies, and intertribal consortia.⁴²

The goal of the WPDGs is to build or substantially increase state and Tribal programs, including capacity building, monitoring and assessment, water quality standards, and restoration and protection. The requested funds assist states, tribes, and local governments to build or refine their wetlands programs and finance the Five-Star Restoration Challenge Grant program.

FY 2016 Activities and Performance Plan:

Strong state and Tribal wetland programs are an essential complement to the Federal Clean Water Act Section 404 regulatory program and the WPDGs are the agency's primary resource for

⁴¹ State and Tribal assumption of Section 404 is an approach that can be useful in streamlining 404 permitting in coordination with other environmental and land use planning regulations. When states or tribes assume administration of the federal regulatory program, Section 404 permit applicants seek permits from the state or tribe rather than the federal government. States and tribes are in many cases located closer to the proposed activities and are often more familiar with local resources, issues, and needs. Even when a state assumes permitting under Section 404, the Corps of Engineers retains jurisdiction under Section 10 of the River and Harbors Act for permits regarding navigable waters.

⁴²For more information, see <http://www.epa.gov/owow/wetlands/initiative/#financial> and http://water.epa.gov/grants_funding/wetlands/estp.cfm.

supporting state and Tribal wetland program development. Resources will continue to assist states and tribes in strengthening wetland protection through documenting stresses or improvements to wetland condition, providing incentives for wetland restoration and protection, and developing regulatory controls to avoid, minimize, and compensate for wetland impacts. The EPA will continue to include wetland preservation as part of the WPDGs to encourage states to integrate wetland preservation into their green infrastructure efforts. Such efforts use natural hydrologic features to manage water and provide environmental and community benefits. In FY 2016, the EPA has requested an additional \$5 million for grants awarded competitively for efforts to increase climate resilience by protecting and enhancing coastal wetlands. Grant projects are complemented by technical assistance provided under the Enhancing State and Tribal Programs effort, as described in the Wetlands Protection Program.

Within the WPDGs, the EPA operates the Five-Star Restoration Program. Under this program, approximately 45 to 50 grants will be awarded to provide technical support and opportunities for information exchange to enable community-based restoration projects while bringing together students, conservation corps, other youth groups, citizen groups, corporations, landowners, and government agencies to provide environmental education and training through projects that restore wetlands, streams, and coasts. Results from this program will contribute to the EPA's measure that tracks wetland acres restored (established and re-established) and improved (enhanced and rehabilitated) through the EPA programs.

Performance Targets:

Measure	(4G) Number of acres restored and improved under the 5-Star, NEP, 319, and great water body programs (cumulative).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	88,000	110,000	150,000	170,000	190,000	220,000	230,000	240,000	Acres
Actual	103,507	130,000	154,000	180,000	207,000	221,000			

Measure	(4E) In partnership with the U.S. Army Corps of Engineers, states, and tribes, achieve no net loss of wetlands each year under the Clean Water Act Section 404 regulatory program. ("No net loss" of wetlands is based on requirements for mitigation in CWA 404 permits and not the actual mitigation attained.)								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	Acres
Actual	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$5,000.0) This program change reflects an increase that will fund competitively awarded projects to protect and restore coastal wetlands for providing vital ecological services, notably mitigating storm surge and providing carbon sequestration services. These projects will help increase the amount of coastal wetlands serving carbon sequestration functions and help reduce coastal flooding and erosion.

Statutory Authority:

Clean Water Act 104(b)3.

Program Area: State and Tribal Assistance Grants (STAG)

Infrastructure Assistance: Clean Water SRF

Program Area: State and Tribal Assistance Grants (STAG)

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$1,547,252.7</i>	<i>\$1,448,887.0</i>	<i>\$1,116,000.0</i>	<i>(\$332,887.0)</i>
Total Budget Authority / Obligations	\$1,547,252.7	\$1,448,887.0	\$1,116,000.0	(\$332,887.0)
Total Workyears	0.5	0.0	0.0	0.0

Program Project Description:

The Clean Water State Revolving Fund (CWSRF) program capitalizes state revolving loan funds in all 50 states and Puerto Rico that finance infrastructure improvements for public wastewater systems and projects to improve water quality. The CWSRF is the largest source of federal funds for states to provide loans and other forms of assistance for water quality projects including construction of wastewater treatments facilities, green infrastructure projects, agricultural best management practices (BMPs), and water and energy efficiency projects. This program also includes a provision for set-aside funding for tribes to address serious wastewater infrastructure needs and associated health impacts. It also provides direct grant funding for the District of Columbia and territories. This federal investment is designed to be used in concert with other sources of funds to address water quality needs.⁴³ Additional tools are available to assist small and disadvantaged communities. The CWSRF program is a key component in the EPA's efforts to promote sustainable infrastructure, helping achieve innovative solutions to wastewater infrastructure needs, achieving economic and environmental benefits that will continue to accrue for years in the future.

As of June 2014, the CWSRF has offered nearly 35,000 assistance agreements to local communities, providing over \$105 billion in affordable financing for wastewater infrastructure, nonpoint source pollution control, and estuary management projects.⁴⁴ These projects are critical to the continuation of the public health and water quality gains of the past several decades. The revolving nature of the funds and substantial state contributions have greatly multiplied the federal investment. The EPA estimates that for every federal dollar contributed, more than two dollars have been provided to municipalities. The CWSRF program measures and tracks the average national rate at which available funds are loaned, assuring that the fund expeditiously supports the EPA's water quality goals.

The EPA will actively support the administration priority of promoting sustainability by continuing to implement its Clean Water and Drinking Water Infrastructure Sustainability Policy

⁴³ See <http://www.epa.gov/cleanwatersrf> for more information.

⁴⁴ Clean Water State Revolving Fund National Information Management System. US EPA, Office of Water, National Information Management System Reports: Clean Water State Revolving Fund (CWSRF). Washington, DC (As of June 30, 2014).

in FY 2016. The Sustainability Policy encourages a robust analysis of various infrastructure options, including green and decentralized approaches.

FY 2016 Activities and Performance Plan:

The Administration has strongly supported the SRFs and since their inception (CWSRF in 1988, DWSRF in 1997), over \$62 billion has been requested and/or provided, including over \$25 billion since 2009. Going forward, the EPA will work with states to target SRF assistance to small and underserved communities with limited ability to repay loans. Building on the strong funding level of \$2.3 billion provided through the Clean Water and Drinking Water State Revolving Funds, \$50 million is included through Drinking Water Programs and Surface Water Protection for technical assistance, training, and other efforts to enhance the capacity of communities and states to plan and finance drinking water and wastewater infrastructure improvements. The EPA will work with states and communities to promote innovative practices that advance water system and community resiliency and sustainability. Dedicated funding through the Clean Water SRF will advance green infrastructure activities such as green roofs, rain gardens, and wetlands which can help cost-effectively meet Clean Water Act requirements and protect and restore the Nation's lakes and rivers.

Within the \$2.3 billion total above, the FY 2016 request includes \$1.116 billion for the CWSRF. This federal investment, along with other traditional sources of financing will continue to enable progress toward the nation's clean water needs and sustainable infrastructure priorities and will contribute to the long-term environmental goal of attaining designated uses. The EPA continues to work with states to meet several key objectives, such as:

- Funding projects designed as part of an integrated watershed approach;
- Linking projects to environmental results;
- Maintaining the excellent fiduciary condition of CWSRF; and,
- Implementing the Water Resources Reform and Development Act (WRRDA) amendments to the CWSRF.

The ability to provide additional subsidization is an important tool in promoting the administration's priorities of providing affordable funding for underserved and disadvantaged communities and encouraging sustainable wastewater infrastructure projects. The FY 2016 President's Budget requests that not less than 10 percent but not more than 20 percent of the total CWSRF monies made available to each state be used to provide additional subsidization to eligible recipients in the form of forgiveness of principal, negative interest loans, or grants (or any combination of these). The Budget does not alter the subsidy provisions required by WRRDA which requires that, beginning in 2016, subsidy use is directed to supporting affordability or to implement a process, material, technique, or technology that addresses water or energy efficiency goals; mitigates stormwater runoff; or encourages sustainable project planning, design, and construction.

In addition to capitalizing the CWSRF, a portion of the appropriation also will provide direct grants to communities within the tribes and territories. These communities are in great need of assistance given that their sanitation infrastructure lags behind the rest of the country causing

significant public health concerns. To ensure that sufficient resources are directed toward these communities that face additional challenges, the EPA continues to request a Tribal set-aside of two percent, or \$30 million, whichever is greatest, of the funds appropriated in FY 2016. The EPA continues to request the ability to use some portion of the Tribal set-aside for training and technical assistance related to operation and management of treatment works similar to that already available to Alaskan Native Villages. The EPA also continues to request a territories set-aside of 1.5 percent of the funds appropriated from the CWSRF for American Samoa, Guam, the Commonwealth of Northern Marianas, and the United States Virgin Islands.

New for the 2016 Budget, for both the tribes and territories, the EPA requests the ability to use the set-asides to support planning and design of treatment works and for the construction, repair, or replacement of privately owned decentralized wastewater treatment systems serving one or more principal residences or small commercial establishments, authority similar to that already available to states. Expanded support for planning and design will protect the federal investment in wastewater infrastructure and ensure access to safe and sustainable wastewater treatment for tribes and territories that face significant challenges with sanitation infrastructure. The ability for both the tribes and territories to construct, repair, or replace decentralized wastewater treatment systems will allow the flexibility that these communities require to provide wastewater infrastructure that is appropriate for the communities' unique circumstances.

In addition, the Sustainability Policy also calls for assisting utilities in implementing management strategies and rate structures that support the systems' necessary water infrastructure investments and operations and maintenance. As part of this effort, the EPA will continue to partner with states to ensure that the CWSRF continues to play an important role in promoting efficient system-wide planning; improvements in technical, financial and managerial capacity; and the design, construction and ongoing management of sustainable water infrastructure. In coordination with the Sustainability Policy and to further encourage the use of green infrastructure to meet Clean Water Act Goals, the EPA is also requesting that not less than 20 percent of the capitalization grants based on funds appropriated in FY 2016 go to projects that address green infrastructure and environmentally innovative activities, provided there are sufficient applications. The resulting projects will enhance community and utility sustainability and resiliency by improving water quality while creating green space, mitigating flooding, and enhancing air quality.

Performance Targets:

Measure	(bpb) Fund utilization rate for the CWSRF.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	94.5	92	94.5	94.5	94.5	94.5	94.5	95	Dollars
Actual	98	100	98	98	97	98			

Measure	(L) Number of water body segments identified by states in 2002 as not attaining standards, where water quality standards are now fully attained (cumulative).								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	2,270	2,809	3,073	3,324	3,727	3,829	4,016	4,166	Segments
Actual	2,505	2,909	3,119	3,527	3,679	3,866			

Recently, fund utilization has remained relatively stable and strong (FY 2016 target of 95 percent). This national ratio is an aggregate of fund activity in the 51 individual CWSRF programs (50 states and Puerto Rico). Small year-to-year fluctuations in the value of the national ratio are expected and reflect annual funding decisions made by each state based on its assessment and subsequent prioritization of state water quality needs and the availability of financial resources.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$332,887.0) This reflects a reduction to the Clean Water State Revolving Fund, though it continues the Administration's strong support for the SRFs. The Budget includes \$2.3 billion for EPA's Clean Water and Drinking Water State Revolving Funds (SRFs) in the STAG appropriation and \$50 million in the EPM appropriation for technical assistance, training, and other efforts to enhance the capacity of communities and states to plan and finance drinking water and wastewater infrastructure improvements. This includes \$80.0 for fixed and other costs to provide essential workforce support to implement the Iron and Steel provision of the CWA, as amended by the Water Resources Reform and Development Act of 2014.

Statutory Authority:

Clean Water Act, CWA; 33 U.S.C 1251 et. seq.– Title VI.
Water Resources Reform and Development Act of 2014 – Title V.

Infrastructure Assistance: Drinking Water SRF

Program Area: State and Tribal Assistance Grants (STAG)

Goal: Protecting America's Waters

Objective(s): Protect Human Health

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	\$892,647.9	\$906,896.0	\$1,186,000.0	\$279,104.0
Total Budget Authority / Obligations	\$892,647.9	\$906,896.0	\$1,186,000.0	\$279,104.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The EPA’s Drinking Water State Revolving Fund (DWSRF) is designed to support states in helping public water systems finance the costs of infrastructure improvements needed to achieve or maintain compliance with Safe Drinking Water Act (SDWA) requirements and to protect public health. Historically, DWSRF project disbursements have accounted for approximately 8 percent of total annual capital expenditures in drinking water which reflects 0.25 percent of the national drinking water infrastructure need. The 2011 Drinking Water Infrastructure Needs Survey and Assessment indicated a 20-year capital investment need of \$384.2 billion for public water systems that are eligible to receive funding from state DWSRF programs -- approximately 52 thousand community water systems and 21.4 thousand not-for-profit non-community water systems (including schools and churches).⁴⁵ The assessment covers costs for repairs and replacement of leaky transmission pipes, deteriorated storage and treatment equipment, and other projects required to protect public health and to ensure compliance with the SDWA. To reduce public health risks and to help ensure safe drinking water nationwide, the EPA makes capitalization grants to states so that they can provide low-cost loans and other assistance to eligible public water systems and maintain robust drinking water protection programs through set-aside funds. The program emphasizes that in addition to maintaining the statutory focus on addressing the greatest public health risks first, states can utilize additional tools to assist systems most in need and fund programs that encourage pollution prevention as a tool for ensuring safe drinking water. The DWSRF is a key component of the EPA’s Sustainable Infrastructure Initiative. In the wake of more frequent extreme weather events that directly threaten drinking water system’s ability to deliver safe drinking water to the public (i.e., Hurricane Sandy), infrastructure resilience is a major part of the agency’s sustainability approach.

The DWSRF program provides access to financing and offers a limited subsidy to help utilities address long-term needs associated with water infrastructure. Most DWSRF assistance is offered in the form of loans which water utilities repay from the revenues they generate through the rates they charge their customers for service. Our nation’s water utilities face the need to significantly increase the rate at which they invest in drinking water infrastructure repair and replacement to keep pace with their aging infrastructure, much of which is approaching the end of its useful life.

⁴⁵ http://water.epa.gov/grants_funding/dwsrf/upload/epa816r13006.pdf

States have considerable flexibility to tailor their DWSRF program to their unique circumstances. This flexibility ensures that each state has the opportunity to carefully and strategically consider how best to achieve the maximum public health protection. For example, states can:

- Establish programs to provide additional subsidies, including negative interest loans or principal forgiveness to communities that the state determines to be disadvantaged;
- Determine the proper balance between infrastructure investment and set-aside use for authorized SDWA program development and implementation. (Historically, the states have set aside an annual average of 16 percent of the funds awarded to them for program development, of which 4 percent is used to run the program; however over the past 3 years States have increased their set-asides taken to nearly 20 percent); and
- Set-aside capitalization grant funds to provide other types of assistance to encourage more efficient and sustainable drinking water system management and to fund programs to protect source water from contamination.

In FY 2016, appropriated DWSRF funds will again be allocated to the states in accordance with each state's proportion of total drinking water infrastructure need based on the 2011 Needs Survey which was released in April 2013. The EPA also published data concerning the drinking water infrastructure needs of water systems serving tribes and Alaskan Native Villages as a special focus of this survey. As directed by the SDWA, the EPA uses the results of the survey to set the state DWSRF allocations every four years. Also, there is a statutory requirement that each state and the District of Columbia receive no less than one percent of the allotment. The EPA will be analyzing the results of the 2015 Needs Survey which will be reported in 2017 and applied to the allocation of the state DWSRF grants beginning in FY 2018.

The federal investment is designed to be used in concert with other sources of funds to address drinking water infrastructure needs. States are required to provide a 20 percent match for their capitalization grant. Some states elect to leverage their capitalization grants through the public debt markets to enable the state to provide more assistance. These features, coupled with the revolving fund design of the program, have enabled the states to provide assistance equal to 175 percent of the federal capitalization invested in the program since its inception in 1997. In other words, for every one dollar the federal government invests in this program, the states, in total, have been able to deliver \$1.75 in assistance to water systems. In addition, the DWSRF's rate of funds utilized (the cumulative dollar amount of loan agreements divided by cumulative funds available for projects) was 92 percent exceeding its target of 89 percent.

Prior to allotting funds to the states, the EPA is required to reserve certain national level allotments.⁴⁶ Two million dollars must, by statute, be allocated to small systems monitoring for unregulated contaminants to facilitate small water system compliance with the monitoring and reporting requirements of the Unregulated Contaminant Monitoring Regulation (UCMR). Historically, a three year sampling period occurs within each five-year monitoring cycle. During the sampling period, fund utilization exceeds the annual appropriation of \$2 M and the carry-over

⁴⁶ Safe Drinking Water Act Sections 1452(i)(1), 1452(i)(2), 1452(j), and 1452(o), as amended.

reserve funds from non-sampling years become essential to complete the small system monitoring efforts.

The EPA will reserve up to 2 percent, or \$20 million, whichever is greater, of appropriated funds for Indian tribes and Alaska Native Villages. These funds are awarded either directly to tribes or, on behalf of tribes, to the Indian Health Service through interagency agreements. The EPA will continue to set aside up to 1.5 percent for territories⁴⁷. In addition, Congress passed a law January 17, 2014, that requires that none of the funds made available by a state water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12) shall be used for a project for the construction, alteration, maintenance, or repair of a public water system or treatment works unless all of the iron and steel products used in the project are produced in the United States. The law provides further that the Administrator may retain up to 0.25 percent of the funds appropriated in this Act for the Clean and Drinking Water State Revolving Funds for carrying out the provisions described in the law for management and oversight of the requirements of this section.

In addition to financing infrastructure through loans, the DWSRF affords states the flexibility to set aside and award funds for targeted activities that can help states implement and expand their drinking water programs. The four DWSRF set-asides are: Small System Technical Assistance (2 percent), Administrative and Technical Assistance (4 percent), State Program Management (10 percent), and Local Assistance and Other State Programs (15 percent). Taken together, up to 31 percent of a state's DWSRF capitalization grant can be set aside for activities other than infrastructure construction. These set asides enable states to improve water system operation and management, emphasizing institutional capacity as a means of achieving sustainable water system operations.

The responsibility for communities and public water systems to continuously provide safe drinking water is a key component of the nation's health and wellbeing. The delivery of safe drinking water is often taken for granted and is extremely undervalued. More than 156,000 public water systems provide drinking water to the approximately 320 million persons in the U.S. More than 97 percent of these public water systems serve fewer than 10 thousand persons.⁴⁸ While most small systems consistently provide safe, reliable drinking water to their customers, many small systems are facing a number of significant challenges in their ability to achieve and maintain system sustainability. The EPA is emphasizing attention to the needs of these small communities/systems while retaining State flexibility in the management of their funds. In FY 2012, the EPA re-energized its small systems focus by working more closely with state programs to improve public water system sustainability and public health protection for persons served by small water systems as part of an agency priority goal.

These approaches have resulted in high system compliance as 91 percent of community water systems (CWSs) met all applicable health-based standards, surpassing the FY 2014 target of 90

⁴⁷ For more information please see:

<https://www.cfdia.gov/index?s=program&mode=form&tab=step1&id=d33d92f2df290e0c2365599cb09f0669>

⁴⁸ <http://water.epa.gov/scitech/datait/databases/drink/sdwisfed/pivottables.cfm>

percent. In addition, 93 percent of the population served by CWSs received drinking water that met all applicable health-based drinking water standards, exceeding the FY 2014 target of 92 percent. However, many small systems face challenges with aging infrastructure, complying with regulatory requirements, workforce shortages/high-turnover, increasing costs, and declining rate bases. In FY 2014, small community water system violations made up 94 percent⁴⁹ of the overall violations from all size systems and, while the 87 percent target was exceeded, only 89 percent of the Indian Country population received drinking water that met all applicable health-based standards.

The EPA and the states will continue extensive and detailed oversight of the DWSRF and partner with the United States Department of Agriculture's (USDA) Rural Utilities Service to promote system sustainability.

FY 2016 Activities and Performance Plan:

Building on the strong funding level of \$2.3 billion provided through the Clean Water and Drinking Water State Revolving Funds, \$50 million is included through Drinking Water Programs and Surface Water Protection for technical assistance, training, and other efforts to enhance the capacity of communities and states to plan and finance drinking water and wastewater infrastructure improvements. EPA will work with states and communities to promote innovative practices that advance water system and community resiliency and sustainability.

Within the \$2.3 billion funding level for the SRFs, in FY 2016, the EPA is requesting \$1.186 billion for the DWSRF, an increase of over \$279 million, to help finance infrastructure improvement projects to public drinking water systems. This increase reflects the high documented needs for drinking water infrastructure and the need to improve infrastructure in small communities. The EPA will further formalize its partnership with USDA to augment coordination of technical and financial assistance and strongly encourage states to coordinate and partner with USDA at more local levels. States and other stakeholders in concert with the EPA, will continue to focus on rule compliance, operational efficiencies, and system sustainability to ensure clean and safe water. In FY 2016, the EPA will augment its effort to build the capacity of local utilities and existing state programs to expand their contribution to the array of funding options to meet future infrastructure needs. The requested funding for this program will support critical infrastructure investments to rebuild and enhance America's drinking water infrastructure.

The Budget proposes a combined \$2.3 billion for federal capitalization of the SRFs which will allow the SRFs to finance approximately \$7.6 billion in wastewater and drinking water infrastructure projects annually. Since their inception (CWSRF in 1988, DWSRF in 1997), over \$62 billion has been requested and/or provided including over \$25 billion in federal capitalization since 2009. The EPA will continue to work to target a significant portion of SRF assistance to small and underserved communities with limited ability to repay loans. In FY 2016, the EPA will work with states to ensure not less than 20 and not more than 30 percent of a state's capitalization grant is provided as subsidization. In addition, the EPA will continue to encourage states to utilize the subsidy to assist small systems with standards compliance. In FY 2016, the EPA will continue to work with states with higher unliquidated obligations (ULOs) to address institutional

⁴⁹ <http://water.epa.gov/scitech/datait/databases/drink/sdwisfed/pivottables.cfm>.

obstacles that cause those states to maintain higher ULOs in order to eliminate or minimize their ULO amounts.

In FY 2016, the DWSRF program will continue to implement a Sustainable Water Infrastructure Policy that focuses on: promoting system-wide planning that helps align water infrastructure system goals; analyzing a range of infrastructure alternatives, including green and decentralized alternatives; and ensuring that systems have the financial capacity and rate structures to construct, operate, maintain, and replace infrastructure over time. As part of that strategy, the EPA federal dollars provided through the State Revolving Funds will also act as a catalyst for efficient system-wide planning, improvements in technical, financial and managerial capacity; and the design, construction and ongoing management of sustainable water infrastructure. In addition, Hurricane Sandy resilience projects will be coordinated with other ongoing disaster recovery projects in New York and New Jersey, and the EPA will apply the lessons learned to work with all states to incorporate resilience factors into the project selection process of their intended use plans.

In FY 2016, the EPA is continuing emphasis on strengthening small system technical, managerial and financial capability through the implementation of the Capacity Development Program, the Operator Certification Program, the Public Water System Supervision state grant program, and the Drinking Water State Revolving Fund. The Capacity Development Program establishes a framework within which states and water systems can work together to help these small systems achieve the SDWA's public health protection objectives. The state Capacity Development programs are supported federally by the Public Water System Supervision state grant funds and the set-asides established in the Drinking Water State Revolving Fund. Since the 1996 Amendments, states have implemented a variety of activities to assist small systems with their compliance challenges and enhance their technical, managerial, and financial capacity.

Performance Targets:

Measure	(apc) Fund utilization rate for the DWSRF.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	89	86	89	89	89	89	89	89	Dollars
Actual	92	91.3	90	90	91	92			

Measure	(aa) Percent of population served by CWSs that will receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	90	90	91	91	92	92	92	92	Population
Actual	92.1	92	93.2	94.7	92	93			

Measure	(apm) Percent of community water systems that meets all applicable health-based standards through approaches including effective treatment and source water protection.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	90	90	90	90	90	90	90	90	Systems
Actual	89.1	89.6	90.7	91	91	91			

Measure	(pi1) Percent of population in each of the U.S. Pacific Island Territories (served by community water systems) that meets all applicable health-based drinking water standards, measured on a four-quarter rolling average basis.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	73	73	75	80	82	80	80	80	Population
Actual	80	82	87	80	81	98			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$279,104.0) This program change reflects an increase for the Drinking Water State Revolving fund to support the higher documented needs for drinking water infrastructure, greater needs for smaller communities, and its lower revolving levels nationally compared to the Clean Water SRF.

Statutory Authority:

SDWA, 42 U.S.C. §300j-12, Section 1452.

Infrastructure Assistance: Alaska Native Villages

Program Area: State and Tribal Assistance Grants (STAG)

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	\$10,070.9	\$10,000.0	\$10,000.0	\$0.0
Total Budget Authority / Obligations	\$10,070.9	\$10,000.0	\$10,000.0	\$0.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Alaska Rural and Native Village (ANV) program reduces disease and health care costs by providing critical basic drinking water and sanitation infrastructure (i.e., flushing toilets and running water) in vulnerable rural and Native Alaska communities that lack such services disproportionately when compared to the rest of the country. In many of these at-risk communities, five-gallon “honey buckets” and pit privies are the sole means of sewage collection and disposal. Alaskan rural and native water and sewer systems face not only the typical challenges associated with small system size, but also the challenging geographic conditions, such as permafrost, shortened construction seasons, and highly remote locations.

The EPA’s grant to the State of Alaska funds improvements and construction of drinking water and wastewater treatment facilities for these underserved communities. Investments in wastewater and drinking water infrastructure in rural Alaska and ANV communities contributed to an increase of access to water and sewer service from 60 percent in the late 1990s to a current level (FY 14) of 94.4 percent of serviceable rural Alaska homes.⁵⁰ Both water borne disease rates and health care costs have decreased through the reduction of exposure to raw sewage and drinking water contaminants.^{51,52} Reducing exposure to raw sewage and drinking water contaminants significantly contributes to reduced health care costs in Native Alaskan communities, which are largely covered by the federal government (most recently authorized by the 2010 Indian Health Care Improvement Act).

The State of Alaska is best positioned to deliver these services to the ANV communities by coordinating across federal agencies and using the different programs to achieve a holistic series of solutions. Alaska uses a risk-based prioritization process to fund projects that will have the greatest public health and environmental benefit. The EPA ANV program, in addition to funding

⁵⁰ Based on data from the Indian Health Service (IHS) and the State of Alaska.

⁵¹ Robert C. Holman, Anianne M Folkema, Rosalyn J. Singleton, John T. Redd, Krista Y. Christensen, Claudia A Steiner, Lawrence B Schonberger, Thomas W. Hennessy, James E. Cheek (2011), *Disparities in Infectious Disease Hospitalizations for American Indian/Alaska Native People*, Public Health Rep. 2011 Jul-Aug; 126(4): 508–521, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3115210/>.

⁵² Thomas W. Hennessy, Troy Ritter, Robert C. Holman, Dana L. Bruden, Krista L. Yorita, Lisa Bulkow, James E. Cheek, Rosalyn J. Singleton, Jeff Smith, *The Relationship Between In-Home Water Service and the Risk of Respiratory Tract, Skin, and Gastrointestinal Tract Infections Among Rural Alaska Natives*, Am J Public Health. 2008 November; 98(11): 2072–2078. doi: 10.2105/AJPH.2007.115618.

system upgrades and construction, uniquely supports training, technical assistance, and educational programs to improve the financial management and operation and maintenance of sanitation systems. This support of training, technical assistance, and educational programs protects the federal investment in infrastructure in communities that often face significant economic challenges.

The ANV technical assistance program helps to improve the long term sustainability of the rural utilities, creating transferable job skills in construction, operation and maintenance activities. The program has also helped to nearly double the number of properly certified operators in Alaskan rural villages since FY 1992, and the number of non-compliant systems has decreased by close to 80 percent since FY 2006.⁵³

While the gains in the program have been significant, ANV communities continue to trail behind the non-Tribal/non-native population in the U.S. with access to water and sanitation. In Alaska, 13 percent of Native and Rural households¹ are without complete indoor plumbing, a much higher figure than the national average of 0.4 percent (US Census Survey 2012) of occupied homes that lacked complete indoor plumbing. As a result 2008 data indicates that the age adjusted infectious disease hospitalization rate for Alaska natives was 28 percent higher than the national average, with a higher disparity observed for infants. Infectious disease hospitalizations account for approximately 22 percent of all Tribal and ANV hospitalizations,⁵⁴ where lower respiratory tract infections, skin and soft tissue infections, and infections of the kidney, urinary tract, and bladder contribute to most of these health disparities.⁵⁵

The ANV program has shown significant progress (see Figure 1 below) documenting, since 2005, the number of ANV homes with access to and projects that have increased access to safe water and sanitation (in combination with other federal agencies). Over this period of time the ANV program contributed 35 percent (including the required State match) of all available funding from federal agencies.

⁵³ As reported by the State of Alaska, Department of Environmental Conservation, Remote Maintenance Worker program outcome reports.

⁵⁴ Robert C. Holman, Anianne M Folkema, Rosalyn J. Singleton, John T. Redd, Krista Y. Christensen, Claudia A Steiner, Lawrence B Schonberger, Thomas W. Hennessy, James E. Cheek (2011), *Disparities in Infectious Disease Hospitalizations for American Indian/Alaska Native People*, Public Health Rep. 2011 Jul-Aug; 126(4): 508–521, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3115210/>.

⁵⁵ Thomas W. Hennessy, Troy Ritter, Robert C. Holman, Dana L. Bruden, Krista L. Yorita, Lisa Bulkow, James E. Cheek, Rosalyn J. Singleton, and Jeff Smith. The Relationship Between In-Home Water Service and the Risk of Respiratory Tract, Skin, and Gastrointestinal Tract Infections Among Rural Alaska Natives. *American Journal of Public Health*: November 2008, Vol. 98, No. 11, pp. 2072-2078. doi: 10.2105/AJPH.2007.115618

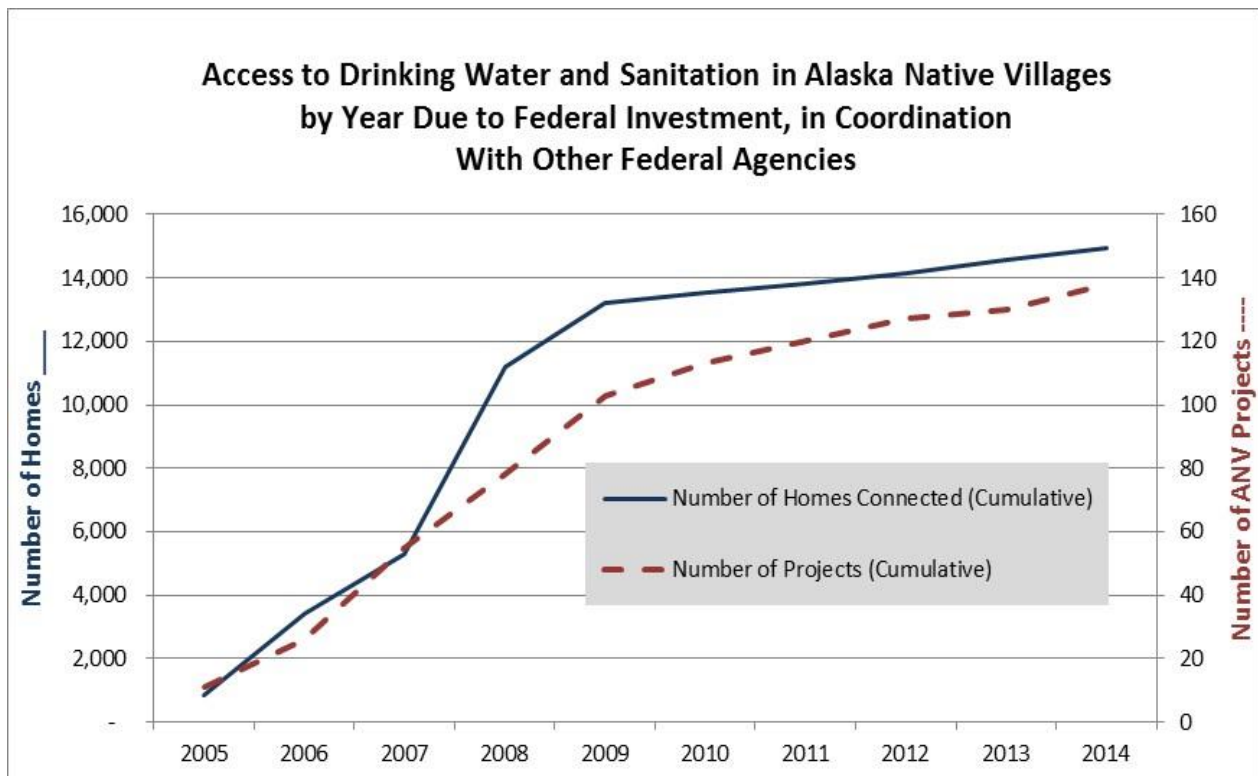


Figure 1: Chart data source: Indian Health Service Sanitation Tracking and Reporting System

FY 2016 Activities and Performance Plan:

The ANV program is administered by the State of Alaska and funds infrastructure development for ANV communities that lack access to drinking water and basic sanitation. The FY 2016 request of \$10 million will fund a portion of the need in rural Alaskan homes and maintain the existing level of wastewater and drinking water infrastructure that meets public health standards, given increased regulatory requirements on drinking water systems and the rate of construction of new homes in rural Alaska. Additionally, the FY 2016 request will continue to support training, technical assistance, and educational programs that protect existing federal investments in infrastructure by improving operation and maintenance of the systems. Improved operation and maintenance improves system performance and extends the life of the asset.

In FY 2016, the agency will continue to work with the State of Alaska to address sanitation conditions and maximize the value of the federal investment in rural Alaska. The EPA will continue to implement the Alaska Rural and Native Village “Management Controls Policy,” adopted in June 2007, to ensure efficient use of funds by allocating them to projects that are ready to proceed or progressing satisfactorily. The agency has made great strides in implementing more focused and intensive oversight of the ANV grant program through cost analyses, post-award monitoring, and timely closeout of projects. The EPA also has collaborated with the State of Alaska to establish program goals and objectives that allow the ANV program to be better positioned to meet environmental and public health goals.

Ongoing Innovative Arctic Technologies Research and Development Effort

The State of Alaska's FY 2013 capital state budget included \$1 million to investigate the development and use of innovative and cost effective technologies to deliver water and wastewater services in rural Alaska.⁵⁶ In FY 2014, proposals were received from 18 different organizations of which the State of Alaska has entered into contracts with six to provide detailed proposals on alternative technologies. During FY 2015 the State of Alaska will contract with three of the six organizations to complete laboratory testing of their proposed technologies. Laboratory testing of the technologies will be completed in FY 2016.

Many Alaska Native Villages cannot afford the high operation and maintenance costs associated with piped or haul systems. The monthly user cost for operating these systems is often more than 5 percent monthly household income in many villages - versus 1 to 2 percent in most urban U.S. areas. In order to provide people in rural communities with adequate water for sanitation needs and to provide needed improvements in public health, the State of Alaska believes that a different approach to delivering these services is needed.

The State funds will be used to encourage and accelerate private sector research and development of technologies that show promise for significantly reducing capital and operating costs associated with existing approaches. The ANV program will work in cooperation with the State in this effort in evaluating proposed alternative approaches, their feasibility and potential impact on public health.

Performance Targets:

Measure	(Opb) Percent of serviceable rural Alaska homes with access to drinking water supply and wastewater disposal.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	96	98	92	93	93	93.5	92.5	93	Homes
Actual	91	92	92	91	91	94.4			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- No change in program funding.

Statutory Authority:

Safe Drinking Water Act (SDWA) Amendments of 1996, Public Law 104-182, Section 303.33 U.S.C. § 1263a. Public Law 113-235, Consolidated and Further Continuing Appropriations Act, 2015.

⁵⁶ The EPA Alaska Native Villages grants program neither currently funds this research and development (R&D) effort nor does the program currently have the authority to fund R&D.

Brownfields Projects

Program Area: State and Tribal Assistance Grants (STAG)
Goal: Cleaning Up Communities and Advancing Sustainable Development
Objective(s): Promote Sustainable and Livable Communities

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$97,731.5</i>	<i>\$80,000.0</i>	<i>\$110,000.0</i>	<i>\$30,000.0</i>
Total Budget Authority / Obligations	\$97,731.5	\$80,000.0	\$110,000.0	\$30,000.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Brownfields program is designed to help states, tribes, local communities, and other stakeholders involved in environmental revitalization and economic redevelopment to work together to plan, inventory, assess, safely cleanup, and reuse brownfields. Brownfield sites are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Brownfields redevelopment is a key to revitalizing downtown areas, neighborhoods, and rural communities, thereby increasing property values and creating jobs. Since its inception, the Brownfields program has fostered a unique, community-driven approach to reuse contaminated sites. The thousands of grants awarded by the program have led to a visible difference in communities across the country, where over 40,000 acres of idle land have been made ready for productive use and over 100,000 jobs and \$21 billion have been leveraged. A study updated in 2014 concluded that cleaning up brownfield properties lead to residential property value increases of 4.9 to 11.1 percent.⁵⁷ According to a 2007 study, an average of 10 jobs are created for every acre of brownfields redevelopment.⁵⁸ Based on historical data provided by the Assessment Cleanup and Redevelopment Exchanges System (ACRES) database, \$1 of the EPA's Brownfields funding leverages between \$17 and \$18 in other public and private funding. Revitalizing these once productive properties helps communities by: removing blight; improving environmental conditions; providing public health benefits; satisfying the growing demand for land; helping to limit urban sprawl; fostering ecologic habitat enhancements; enabling economic development; and, maintaining or improving quality of life.

Under this program, the EPA will provide cooperative agreement funding for: 1) assessments for recipients to inventory, characterize, assess, and conduct cleanup and redevelopment planning related to brownfields sites; 2) cleanup resources for recipients to clean up sites they own; 3) capitalization for Revolving Loan Funds (RLFs) to provide low interest loans and sub-grants for cleanups; 4) environmental workforce development and job training to recruit, train, and place local, unemployed residents of solid and hazardous waste-affected communities with the skills

⁵⁷ Haninger, Kevin, Lala Ma, and Christopher Timmins. 2014. "The Value of Brownfield Remediation" National Bureau of Economic Research Working Paper No. 20296, <http://www.nber.org/papers/w20296.pdf>.

⁵⁸ Howland, Marie. 2007. "Employment Effects of Brownfields Redevelopment, What Do We Know from the Literature?" *Journal of Planning Literature*. 22:91.

needed to secure full-time employment in the environmental field; and 5) support for localities, states, tribes, and non-profit organizations for research, training, and technical assistance for brownfields-related activities. For those communities without access to other assessment resources or lack the capacity to manage a brownfields assessment grant, the EPA will conduct targeted brownfields assessments under the EPA contracts and interagency agreements with federal partners. In addition, the EPA will offer technical assistance, research, and training assistance to individuals and organizations through cooperative agreements, the EPA's contractors, and federal partners under interagency agreements to facilitate the inventory, assessment, and remediation of brownfields sites, community involvement, and site preparation.

The Brownfields program is a successful model of working cooperatively with states, tribes, local governments, and other federal agencies to help communities oversee, plan, assess, and cleanup brownfield properties. The program will continue to work with relevant governmental agencies to build new tools and strategies that enhance coordination to help communities prioritize sites for assessment, cleanup, and sustainable reuse.

The EPA also will use resources to maintain the Area-Wide Planning (AWP) program and strengthen our integrated approach to communities and tribes across multiple program offices, and work to leverage resources and activities to maximize environmental benefits for communities. The AWP grants will continue to incorporate principles of sustainability, adaptation and resiliency, cross program planning and integration.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will build on our current work to make a visible difference in communities across the country by providing communities financial and technical assistance to assess, cleanup, and plan reuse at brownfield sites. The Brownfields program will continue to foster federal, state, Tribal, local, and public-private partnerships to return properties to productive economic use in communities. By removing uncertainty about a property's contamination, brownfields funding can be a catalyst for additional investment to revitalize a community. This program will support the following activities in FY 2016:

- Funding will support at least 151 assessment cooperative agreements (estimated \$38.1 million) that recipients may use to inventory, assess, cleanup, and plan reuse at brownfields sites, as authorized under CERCLA 104(k)(2). In FY 2016, the EPA expects to continue the Assessment Coalition option which allows three or more eligible entities to submit one grant proposal for up to \$600 thousand to assess sites within the assessment coalition members' areas. This level of assessment funding will lead to approximately 906 site assessments in the three years following the awards.
- The EPA will provide funding for Targeted Brownfields Assessments in communities without access to other assessment resources or those that lack the capacity to manage a brownfields assessment grant. There is special emphasis for small and rural communities to submit requests for this funding to ensure equal access to brownfields assessment resources. These assessments will be performed through contracts and interagency agreements, as authorized by CERCLA 104(k)(2) and the terms of the EPA's

appropriation act. The FY 2016 funding request includes an estimated \$5.1 million to perform Targeted Brownfields Assessments for 51 communities.

- Funding will support approximately 64 direct cleanup cooperative agreements (estimated \$12.7 million) to enable eligible entities to clean up properties that the recipient owns. This funding will lead to approximately 64 sites cleaned up. The agency will award direct cleanup cooperative agreements of up to \$200 thousand per site to eligible entities and non-profits, as authorized under CERCLA 104(k)(3).
- Funding will support the capitalization of approximately 7 revolving loan fund cooperative agreements (estimated \$4.9 million) to enable eligible entities to make loans and subgrants to clean up brownfield properties. The EPA will encourage recipients to consider options for enhancing the share of loans to sub-grants and increasing the rates at which RLFs are recapitalized.
- The agency will provide supplemental RLF funding (estimated \$7.8 million) to existing high performing RLF recipients. The RLF Supplemental funding will lead to approximately 32 sites being cleaned up. The RLF program enables eligible entities to make loans and subgrants for the cleanup of properties and encourages communities to leverage other funds into their RLF pools and cleanup cooperative agreements as authorized under CERCLA 104(k)(3) and (4). For RLF supplemental funding, the EPA will encourage recipients to consider options for enhancing the share of loans to sub-grants and increasing the rates at which RLFs are recapitalized.
- Environmental Workforce Development and Job Training (EWDJT) cooperative agreements (estimated \$3.5 million) will provide funding for approximately 18 cooperative agreements of up to \$200 thousand each for a three year project period. This funding will provide environmental job training for community residents to take advantage of new jobs created as result of the assessment and cleanup of brownfields, as authorized under CERCLA 104(k)(6), as well as other jobs created through agency funds, such as wastewater treatment facilities, emergency response activities, solid waste remediation and recycling centers, and Superfund cleanup projects. The cooperative agreements will allow recipients to recruit, train, and place unemployed individuals in jobs that address environmental challenges in their communities. From the inception of this program in 1998 to July 2014, approximately 15,800 individuals have completed training and approximately 11,300 of those obtained employment in the environmental field with an average starting hourly wage of \$14.32. This equates to a cumulative placement rate of 71 percent since the program was created. The FY 2016 funding request will lead to approximately 881 people trained and 611 placed in jobs.
- Funding also will support assessment and cleanup of abandoned underground storage tanks (USTs) and other petroleum contamination found on brownfields properties (estimated \$27.5 million) for up to approximately 10 Targeted Brownfields Assessments and approximately 132 brownfields assessment, RLF and cleanup cooperative agreements, as authorized under CERCLA 104(k)(2) and CERCLA 104(k)(3). The Brownfields Law requires the program to select the highest ranking proposals. In order to award funding to

the highest ranked proposals, the EPA is requesting the flexibility to use up to 25 percent of its CERCLA104 (k) funding to address petroleum contaminated sites versus an exact 25 percent identified by statute. The current 25 percent set-aside restricts the brownfields program from selecting higher-ranked applicants who requested hazardous substances funding. Replacing the 25 percent set-aside requirement with a 25 percent ceiling will provide the EPA with the flexibility to select the highest ranked project, regardless of the type of money requested and therefore meet the demand of the communities applying for the various brownfields grants. For example, hazardous substances funding requests account for approximately 68 percent of all brownfields funding requests in the past three years, while the demand for petroleum funding hovers around 32 percent of brownfields funds requested.

- As part of the President’s POWER+ Plan, the agency will provide funding to support 20 area-wide planning grants (estimated \$5.0 million) to assist communities that are impacted by multiple brownfields sites explore new land use and economic development opportunities awarded under CERCLA Section 104(k)(6) and provide technical assistance through targeted brownfield assessments, interagency agreements, and/or contracts to support area-wide planning activities. Grant activities will cover planning assistance, coordination of enforcement, water and air quality programs, and work with other federal agencies, states, tribes and local governments to target environmental improvements identified in each community’s area-wide plan.
- Funding also will support additional training, research, technical assistance cooperative agreements and contract support, including support for current Area-Wide Planning communities through cooperative agreements, interagency agreements, and direct services from contractors (estimated \$5.4 million), as authorized under CERCLA 104(k)(6).
- All estimates of outputs and outcomes are supported by the data that is entered by cooperative agreement recipients via the ACRES database and analyzed by the EPA. Maintenance of ACRES, focus on the input of high quality data, and robust analysis regarding program outcomes and performance will continue to be a priority during FY 2016.

Performance Targets:

Measure	(B29) Brownfield properties assessed.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	1,000	1,000	1,000	1,200	1,200	1,200	1,300	1,300	Properties
Actual	1,295	1,326	1,784	1,444	1,528	1,659			

Measure	(B32) Number of properties cleaned up using Brownfields funding.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	60	60	60	120	120	120	120	120	Properties
Actual	93	109	130	120	122	132			

Measure	(B34) Jobs leveraged from Brownfields activities.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	Jobs
Actual	6,490	5,177	6,447	5,593	10,141	12,376			

Measure	(B37) Billions of dollars of cleanup and redevelopment funds leveraged at Brownfields sites.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	0.9	0.9	0.9	1.2	1.2	1.2	1.1	1.1	Dollars (Billions)
Actual	1.06	1.40	2.14	1.2	1.54	1.29			

Measure	(B33) Acres of Brownfields properties made ready for reuse.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	1,000	1,000	1,000	3,000	3,000	3,000	4,000	4,000	Acres
Actual	2,660	3,627	6,667	3,314	4,644	6,389			

Extensive analysis⁵⁹ using ACRES data suggests a multi-year time lag in realizing performance outcomes. Since 2012, the program has placed an increased emphasis on ensuring grantee reporting is complete and accurate, resulting in higher than expected annual results for assessments and cleanups complete. Additionally, several brownfields-funded cleanups have resulted in large scale redevelopment projects leading to significant gains in jobs leveraged and acres ready for reuse. After carefully reviewing performance trends over the past four years, the program has increased annual performance targets in each of these areas. Specifically, performance targets for FY 2015 have been increased for measures tracking assessments (from 1,200 to 1,300), properties cleaned up using brownfields funding (from 115 to 120), acres ready for reuse (from 2,800 to 4,000) and jobs leveraged (from 4,750 to 5,000).

The EPA's performance measures for the Brownfields program are strongly influenced by outputs and outcomes of assessment, cleanup and RLF cooperative agreements. These outputs and outcomes depend on the maturity of each cooperative agreement, which usually has a performance period range of three to five years. For assessment and cleanup cooperative agreements, the performance period is three years, and five years for RLF cooperative agreements. Work under this program supports performance results in State and Tribal Assistance Grants: Brownfields Projects and can be found in the Eight-Year Performance Array.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$30,000.0) This program change reflects an increase in funding to communities in environmental revitalization and economic redevelopment to work together to plan, assess, cleanup, and reuse brownfields. An increase of \$5.0 million will be provided for AWP grants as part of the President's POWER+ Plan. An increase of \$6.9 million will be provided to enhance the RLF program, specifically with regard to increased funding augmenting the share of loans to sub-grants and increasing the rates at which funds are recapitalized. The remaining increase of \$18.1 million will be provided to the core program area of assessment and cleanup grants.

⁵⁹ For more information, visit: <http://www.epa.gov/brownfields/pdfs/Brownfields-Evaluation-Parts-I-II.pdf>

Statutory Authority:

Comprehensive Environmental Response, Compensation, and Liability Act, as amended by the Small Business Liability Relief and Brownfields Revitalization Act, 42 United States Code 9601 et seq. – Sections 101, 104 (k), and 107.

Diesel Emissions Reduction Grant Program

Program Area: State and Tribal Assistance Grants (STAG)
 Goal: Addressing Climate Change and Improving Air Quality
 Objective(s): Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	\$20,674.3	\$30,000.0	\$10,000.0	(\$20,000.0)
Total Budget Authority / Obligations	\$20,674.3	\$30,000.0	\$10,000.0	(\$20,000.0)
CA Emission Reduction Project Grants	\$0.0	\$0.0	\$0.0	\$0.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The Diesel Emissions Reduction Act (DERA) Grant Program has provided immediate, cost-effective emission reductions from existing diesel engines through engine retrofits, rebuilds, and replacements; switching to cleaner fuels; idling reduction strategies; and other clean diesel strategies. The DERA program was initially authorized in Sections 791-797 of the Energy Policy Act of 2005 and reauthorized by the Diesel Emission Reduction Act of 2010 through FY 2016.

From goods movement to building construction to public transportation, diesel engines are the modern-day workhorse of the American economy. Diesel engines are extremely efficient and power nearly every major piece of machinery and equipment on farms, construction sites, in ports, and on highways. As the agency’s heavy-duty highway and nonroad diesel engines emissions standards came into effect in 2007 and 2008 respectively, new cleaner diesel engines started to enter the nation’s fleet. However, today there are still more than 10 million engines in use that will continue to emit large amounts of nitrogen oxides and particulate matter. The EPA’s DERA program promotes strategies to reduce these emissions and protect public health, by working with manufacturers, fleet operators, air quality professionals, environmental and community organizations, and state and local officials. While the DERA grants accelerate the pace at which dirty engines are retired or retrofitted, pollution emissions from the legacy fleet also will be reduced over time without additional DERA funding as portions of the fleet turnover and are replaced with new engines that meet modern emission standards. However, even with attrition through fleet turnover, the agency estimates that approximately 1.5 million old diesel engines would still remain in use in 2030.

Through FY 2013, the DERA program reduced the emissions of approximately 61,500 diesel vehicles, vessels or pieces of equipment, reducing NO_x by almost 261,000 tons and PM by 16,300 tons. Over 240 million gallons of fuel were saved. Based on the EPA’s experience to date, every \$1 million of DERA program grants/loans successfully leveraged at least \$2 million in additional funding assistance. Retrofitting or replacing older diesel engines reduces particulate matter (PM) emissions up to 95 percent, smog-forming emissions, such as hydrocarbons (HC) and nitrogen oxide (NO_x), up to 90 percent, and greenhouse gases up to 20 percent in the upgraded vehicles with engine replacements. These projects have eliminated or will eliminate

tens of thousands of tons of pollution from the air we breathe, and are targeted in areas that are disproportionately impacted by diesel emissions. According to these same estimates, every \$1 spent retrofitting or replacing the oldest and most polluting diesel engines can lead to up to approximately \$13 in health benefits, improving the health of our most vulnerable citizens.

FY 2016 Activities and Performance Plan:

The FY 2016 budget continues a targeted approach designed to direct DERA grants and rebates to reduce diesel emissions in priority areas and areas of highly concentrated diesel pollution with a primary focus on ports and school buses. The federal monies would be split into two categories. The first category allocates funds to a rebate program established under DERA's reauthorization. Through the rebate mechanism, the agency will more efficiently and precisely target the awards toward the dirtiest, most polluting engines. In addition, this rebate mechanism can be used to provide funding directly to private fleets. The second category would allocate funds toward national grants.

The EPA also will track, assess, and report the results of the DERA grants, such as numbers of engines, emissions benefits, and cost-benefit information.⁶⁰ Finally, the EPA will continue to provide diesel emission reduction technology verification and evaluation and provide that information to the public.

Performance Targets:

Work under this program also supports performance results in the Federal Support for Air Quality Management Program under Environmental Programs and Management Tab and can be found in the Eight Year Performance Array in the Program Performance and Assessment section.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$20,000.0) This program reduction reflects a continuation of the proposed funding strategy, which reduces the overall amount of funding available for the program, but targets spending on grants and rebates toward communities most impacted by harmful diesel emissions.

Statutory Authority:

Energy Policy Act of 2005, Sections 741 and 791-797; P.L. 111-364; H.R. 5809 Diesel Emissions Reduction Act of 2010.

⁶⁰ List of all awards under DERA can be found at <http://www.epa.gov/cleandiesel/highlights.htm>.

Infrastructure Assistance: Mexico Border

Program Area: State and Tribal Assistance Grants (STAG)

Goal: Protecting America's Waters

Objective(s): Protect and Restore Watersheds and Aquatic Ecosystems

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	\$5,000.0	\$5,000.0	\$5,000.0	\$0.0
Total Budget Authority / Obligations	\$5,000.0	\$5,000.0	\$5,000.0	\$0.0
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

The EPA works collaboratively with U.S. federal, state, and local partners and the Mexican water agency - CONAGUA - through the U.S.-Mexico Border Water Infrastructure Program to fund planning, design, and construction of high-priority water and wastewater treatment facilities for underserved communities along the border. Investments in wastewater and drinking water infrastructure in communities on both sides of the U.S.-Mexico Border reduce disease and health care costs because exposure to raw sewage and drinking water contaminants cause acute and chronic illnesses. The border region faces high poverty rates; three of the ten poorest counties in the United States are located in the border area and twenty-one of the border counties have been designated as economically distressed areas.⁶¹ U.S.-Mexico Border Water Infrastructure projects stimulate local economies through public health-related economic gains, job creation, and increased demand for goods and services. The United Nations Development Program has estimated that every one dollar investment in the water sector creates eight dollars in costs averted and economic productivity gained.⁶²

Untreated sewage flowing north into the U.S. from Tijuana, Mexicali, and Nogales pollutes important water bodies like the Tijuana, New River, and Santa Cruz rivers. Untreated sewage also pollutes shared waters, such as the Rio Grande, Pacific Ocean, and the Gulf of Mexico. The close proximity and intermingling of border communities that have poor quality drinking water and sanitation poses a serious risk of disease transmission. The United States and Mexico share more than two thousand miles of common border. More than 14 million people live in the border area, approximately 7.3 million living in the United States.⁶³ Twenty-six U.S. federally recognized Native American tribes are also located in the U.S.-Mexico border region.

To date, the program has funded 111 projects. More than eight million people are benefiting from 92 completed projects, and more than half a million additional people are expected to benefit once all the projects that are funded for construction are completed. Since 2003, the program has

⁶¹ U.S.-Mexico Border Health Commission, http://www.borderhealth.org/border_region.php

⁶² United Nations Development Program, *Beyond Scarcity: Power, Poverty and the Global Water Crisis, Human Development Report, 2006.*

⁶³EPA/SEMARNAT, "State of the Border Region: Indicators Report", 1st edition, 2011.

provided approximately 65,000 homes with first time access to safe drinking water and more than 580,000 homes with first time access to wastewater collection/treatment.

The EPA's Border Water Infrastructure Program is unique among federal funding programs. It is the only federal program that can fund projects on both sides of the border, with all projects benefiting communities on the U.S. side of the border. Citizens of the United States benefit from all projects since all funded projects must demonstrate that they will provide a positive public health and/or environmental benefit to the United States, whether the project is located in the U.S. or Mexico. For example, a wastewater project in Mexico can only be funded if that sewage would otherwise contaminate a U.S. waterbody. Treating these waters after they have been contaminated and have crossed the border into the United States is neither technically feasible nor financially viable. The agency's investments in the Mexican side projects represent only a third of the total project construction costs, while leveraging two thirds of the remaining total costs from the Mexican government and other funding sources, and preventing contamination from raw sewage discharges in shared waters. The EPA's investment leverages Mexican funds for the benefit of the U.S. If not for the agency's investment, Mexican funds would likely be invested in other parts of Mexico that do not directly benefit the U.S. Preventing raw sewage discharges to shared water resources is especially critical in a region that is already facing water scarcity challenges.

The close bi-national cooperation in this program has improved public health and water quality. Improving access to clean and safe water is a key focus of the *Border 2020 Plan*, the bi-national agreement that guides efforts to improve environmental conditions in the U.S.-Mexico Border region.

The U.S.-Mexico Border Program is one of the few federal programs that assists communities in the planning and design of water and sanitation infrastructure projects. Planning and design is essential to advance projects to a construction ready stage, create sustainable communities and access public and private funding. Currently, the program is assisting 25 communities in planning and design of projects, including first time access to safe drinking water and sanitation. Available funding will allow the program to complete the projects currently in construction and proceed with construction of only approximately 10 to 15 of the 25 projects in the planning and design phase.

U.S.-Mexico Border communities are looking to the EPA as a last-resort funding source when utilities, cities, or states are not able to fully finance needed infrastructure improvements. The program serves communities that often lack the debt capacity to apply for other funding sources, including the EPA's State Revolving Funds. The results of the EPA's last grant solicitation in FY 2011 exemplify the need to assist these communities. The FY 2011 request for proposals resulted in 200 applications with an estimated construction cost of \$800 million. To date, the Agency has been able to fund 39 high priority projects. Many communities on the prioritized list have not been able to advance their projects due to lack of funding. Approximately 30 of the FY 2011 applications that are still awaiting assistance will address immediate public health issues.

The EPA investments in these wastewater projects are protecting public health from waterborne diseases and have been a key factor in significant water quality improvements in U.S. waterbodies, such as the Rio Grande (Texas and New Mexico), Santa Cruz River (Arizona), New

River (California), and Tijuana River and Pacific Ocean (California). In both the New River and the middle Rio Grande, for example, fecal coliform levels have dropped by over 80 percent (as a result of jointly-funded wastewater treatment plants built in Mexicali and Ojinaga, Mexico, respectively). California beaches in the border region that were once closed throughout the year due to wastewater pollution from Mexico now remain open throughout the summer, resulting in decreased health risks to beachgoers and an economic benefit for local governments. The Santa Cruz River now supports a healthy fish population where a few years ago only bloodworms thrived.

FY 2016 Activities and Performance Plan:

In FY 2016, the U.S.-Mexico Border Water Infrastructure Program will continue to fund high-priority water and wastewater infrastructure projects. The FY 2016 request of \$5 million will fund a portion of the need in border communities. Projects that receive funding have been evaluated and ranked using a risk-based prioritization system, which enables the program to direct grant funding to projects that demonstrate human health benefits, cost-effectiveness, institutional capacity, and sustainability. The EPA coordinates at local, national, and bi-national levels to assess the environmental needs and make prioritized funding decisions. All program funding will be invested in projects that, whether located in the United States or Mexico, provide a positive public health and/or environmental benefit to the United States. U.S. benefits include improved quality of U.S. water bodies and shared waters and reduced health risk to the U.S. population. The demonstration of a U.S. benefit is one of the fundamental eligibility criteria for projects seeking program assistance.

The U.S.-Mexico Border Water Infrastructure Program will continue to work with the ten border States (four U.S. and six Mexican) and local communities to improve the region’s water quality and public health. The U.S. and Mexican governments will collaborate on water infrastructure projects to reduce health risks to residents, including sensitive populations of children and elders, many of whom currently lack access to safe drinking water and sanitation. Additionally, by providing homes with access to basic sanitation, the EPA and its partners will reduce the discharge of untreated wastewater into surface water and groundwater.

FY 2016 funding will be allocated to a portion of the construction of projects that have completed planning and design and are ready to move to construction. Final decisions on the use of FY 2016 funding will be based on balancing the construction needs of fully designed projects with the planning and design needs of prioritized projects.

Performance Targets:

Measure	(4pg) Loading of biochemical oxygen demand (BOD) removed (million pounds/year) from the U.S.-Mexico border area since 2003.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target			108.2	115	121.5	137.3	141.1	170.3	Million Pounds/Year
Actual			108.5	119	128.3	131			

Measure	(xb2) Number of additional homes provided safe drinking water in the U.S.-Mexico border area that lacked access to safe drinking water in 2003.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	1,500 (Annual)	28,434 (Cumulative)	54,130 (Cumulative)	1,000 (Annual)	3,000 (Annual)	1,700 (Annual)	600 (Annual)	500 (Annual)	Homes
Actual	1,584 (Annual)	52,130 (Cumulative)	54,734 (Cumulative)	5,185 (Annual)	3,400 (Annual)	1,468 (Annual)			

Measure	(xb3) Number of additional homes provided adequate wastewater sanitation in the U.S.-Mexico border area that lacked access to wastewater sanitation in 2003.								Units
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	
Target	105,500 (Annual)	246,175 (Cumulative)	461,125 (Cumulative)	10,500 (Annual)	27,000 (Annual)	39,500 (Annual)	40,750 (Annual)	53,000 (Annual)	Homes
Actual	43,594 (Annual)	254,125 (Cumulative)	513,041 (Cumulative)	31,092 (Annual)	25,695 (Annual)	12,756 (Annual)			

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- No change in program funding.

Statutory Authority:

Treaty entitled “Agreement between the United States of America and the United Mexican States on Cooperation for the Protection and Improvement of the Environment in the Border Area, August 14, 1983;” Public Law 112-74, Consolidated Appropriations Act of 2012.

Targeted Airshed Grants

Program Area: State and Tribal Assistance Grants (STAG)
Goal: Addressing Climate Change and Improving Air Quality
Objective(s): Improve Air Quality

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>State and Tribal Assistance Grants</i>	<i>\$0.0</i>	<i>\$10,000.0</i>	<i>\$0.0</i>	<i>(\$10,000.0)</i>
Total Budget Authority / Obligations	\$0.0	\$10,000.0	\$0.0	(\$10,000.0)
Total Workyears	0.0	0.0	0.0	0.0

Program Project Description:

This program offered \$10 million in competitive grants to reduce air pollution in nonattainment areas that are ranked as the top five most polluted areas relative to annual ozone or PM_{2.5} National Ambient Air Quality Standards (NAAQS). As stated in the appropriation, EPA determined those areas based on the most recent design values calculated from validated air quality data. There was no funding for this program project in FY 2014.

FY 2016 Activities and Performance Plan:

There is no request for this program in FY 2016.

Performance Targets:

Currently, there are no performance measures for this specific program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (-\$10,000.0) This change reflects the elimination of funding for this program project in FY 2016.

Statutory Authority:

P-L. 113-235.

**Environmental Protection Agency
2016 Annual Performance Plan and Congressional Justification**

Table of Contents - E-Manifest

Resource Summary Table	844
Program Area: Resource Conservation and Recovery Act (RCRA)	845
RCRA: Waste Management.....	846

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

**APPROPRIATION: Hazardous Waste Electronic Manifest System Fund
Resource Summary Table**

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Hazardous Waste Electronic Manifest System Fund				
Budget Authority	\$2,626.5	\$3,674.0	\$7,368.0	\$3,694.0
Total Workyears	7.9	8.0	7.9	-0.1

Bill Language: E-Manifest

For necessary expenses to carry out section 3024 of the Solid Waste Disposal Act (42 U.S.C. 6939g), including the development, operation, maintenance, and upgrading of the hazardous waste electronic manifest system established by such section, \$7,368,000, to remain available until September 30, 2018. (Department of the Interior, Environment, and Related Agencies Appropriations Act, 2015.)

Program Projects in E-Manifest

(Dollars in Thousands)

Program Project	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
Resource Conservation and Recovery Act (RCRA)				
RCRA: Waste Management	\$2,626.5	\$3,674.0	\$7,368.0	\$3,694.0
Subtotal, RCRA: Waste Management	\$2,626.5	\$3,674.0	\$7,368.0	\$3,694.0
TOTAL, EPA	\$2,626.5	\$3,674.0	\$7,368.0	\$3,694.0

Program Area: Resource Conservation and Recovery Act (RCRA)

RCRA: Waste Management

Program Area: Resource Conservation and Recovery Act (RCRA)
Goal: Cleaning Up Communities and Advancing Sustainable Development
Objective(s): Preserve Land

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Hazardous Waste Electronic Manifest System Fund</i>	\$2,626.5	\$3,674.0	\$7,368.0	\$3,694.0
Environmental Program & Management	\$58,104.9	\$59,958.0	\$63,413.0	\$3,455.0
Total Budget Authority / Obligations	\$60,731.4	\$63,632.0	\$70,781.0	\$7,149.0
Total Workyears	334.8	342.0	332.7	-9.3

Program Project Description:

On October 5, 2012, the President signed the Hazardous Waste Electronic Manifest Establishment Act (e-Manifest Act, Public Law 112-195) requiring the EPA to develop a hazardous waste electronic manifest system. The system will be designed to, among other functions, assemble and maintain the information contained in the estimated five million forms accompanying hazardous waste shipments across the United States. Prior to this legislation, this information only needed to be co-located with the hazardous waste shipment and then shared with any appropriate states. In FY 2013, the EPA initiated the effort to develop a program that provided for the submission of information electronically as well as in paper form. This investment at the federal level will significantly reduce the time and costs for regulated entities to submit, maintain, process, and publish data from hazardous waste manifests.

The EPA estimates that, when fully implemented, the electronic manifest (e-Manifest) program will reduce the reporting burden for firms regulated under the Resource Conservation and Recovery Act (RCRA) hazardous waste provisions by more than \$75 million annually,¹ by replacing time consuming paper-based reporting with an electronic manifest system. E-Manifest aligns with the agency's E-Enterprise business strategy, an integral part of the agency's focus on launching a new era of state, local, Tribal, and international partnerships. E-Enterprise for the Environment is a transformative 21st century strategy – jointly governed by states and the EPA – for modernizing government agencies' delivery of environmental protection. Under this strategy, the agency will streamline its business processes and systems to reduce reporting burden on states and regulated facilities, and improve the effectiveness and efficiency of regulatory programs for the EPA, states and tribes. The program also will provide better knowledge of waste generation and final disposition; enhanced manifest inspection and enforcement; and greater transparency for the public about hazardous waste shipments.

¹ From a 2009 programmatic estimate, cited in *Hazardous Waste Management System; Modification of the Hazardous Waste Manifest System; Electronic Manifests; Final Rule*. 40 CFR § 260, 262, 263, 264, 265, and 271. <http://www.gpo.gov/fdsys/pkg/FR-2014-02-07/pdf/2014-01352.pdf>

In FY 2014, Congress established a new appropriation, the "Hazardous Waste Electronic Manifest System Fund" to carry out the activities necessary to implement the e-Manifest program. The Fund covers all aspects of the e-Manifest program, including system development, rulemaking, and advisory committee establishment. Once this system is in place, the fees collected through the program will be used to fund the development and operation of the program.

FY 2016 Activities and Performance Plan:

In FY 2016, the EPA will continue to work closely with states, industry users, and other stakeholders to develop the e-Manifest system. Activities include major software development/modification, database development, and establishing appropriate server hosting capabilities. The EPA plans to perform the following key activities:

- Continue the development of the e-Manifest IT system, testing key system components as they are developed;
- Complete the proposed User Fee rule, including the economic models supporting this rule;
- Analyze and select the accounting and financial reporting structures needed to collect and manage user fees;
- Establish the e-Manifest Advisory Board, consisting of state and industry stakeholders and IT experts, to provide input on system performance and user fee adjustments; and
- Continue to incorporate relevant E-Enterprise business strategy, approaches, and tools during system development.

The above efforts build on work completed in FY 2014 when the EPA finalized the regulation that authorizes the electronic transmittal of manifests² and also initiated the User Fee rule. In addition, the EPA worked closely with states, industry, and other stakeholders to begin IT system technical architecture planning process, such as completing plans and strategies for state and industry system integration and data sharing, and developing a mobile strategy. In FY 2015, the EPA will complete the planning phase and prepare to award one or more contracts for construction of the system for the national e-Manifest program.

In FY 2016, the EPA expects to begin development of select key components of the e-Manifest system. The agency anticipates full system development to take approximately two years, including extensive testing for anticipated hundreds of thousands of users across the country. Testing of critical IT components will occur throughout the two-year development cycle.

Performance Targets:

Work under this program supports performance results in the RCRA Waste Management program and supports strategic objective Preserve Land under Goal 3, which can be found in the Eight-Year Performance Array.

² In February 2014, the agency completed a rulemaking, known as the "one year rule," that provides the legal framework for use of electronic manifests. See <http://www.gpo.gov/fdsys/pkg/FR-2014-02-07/pdf/2014-01352.pdf>.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- (+\$112.0) This change to fixed and other costs reflects the recalculation of base workforce costs due to adjustments in salary, essential workforce support, and benefit costs.
- (+\$3,582.0 / -0.1 FTE) This net program change reflects an increase in contract funding needs in FY 2016 for development of the e-Manifest IT system. The increase in funding was offset by a slight decrease in FTE as start-up activities are completed.

Statutory Authority:

Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act and the Hazardous Waste Electronic Manifest Establishment Act, 42 United States Code 6901 et seq. – Sections 3004, 3005, 3024, 8001.

**Environmental Protection Agency
2016 Annual Performance Plan and Congressional Justification**

Table of Contents - Program Performance and Assessment

GOAL 1: ADDRESSING CLIMATE CHANGE AND IMPROVING AIR QUALITY....	851
GOAL 2: PROTECTING AMERICA'S WATERS	863
GOAL 3: CLEANING UP COMMUNITIES AND ADVANCING SUSTAINABLE DEVELOPMENT	891
GOAL 4: ENSURING THE SAFETY OF CHEMICALS AND PREVENTING POLLUTION.....	905
GOAL 5: PROTECTING HUMAN HEALTH AND THE ENVIRONMENT BY ENFORCING LAWS AND ASSURING COMPLIANCE	921
OFFICE OF RESEARCH AND DEVELOPMENT.....	929
OFFICE OF ADMINISTRATION AND RESOURCES MANAGEMENT	936
OFFICE OF ENVIRONMENTAL INFORMATION.....	937
OFFICE OF THE INSPECTOR GENERAL	938
VERIFICATION/VALIDATION OF PERFORMANCE DATA	Error! Bookmark not defined.

PERFORMANCE: EIGHT-YEAR ARRAY

(The shaded boxes indicate that actual results are not yet available, or that a measure has been discontinued.)

GOAL 1: ADDRESSING CLIMATE CHANGE AND IMPROVING AIR QUALITY

Reduce greenhouse gas emissions and develop adaptation strategies to address climate change, and protect and improve air quality

Objective 1 - Address Climate Change: Minimize the threats posed by climate change by reducing greenhouse gas emissions and taking actions that help to protect human health and help communities and ecosystems become more sustainable and resilient to the effects of climate change.

Program Area	Performance Measures and Data									
(1) Address Climate Change	<p>Strategic Measure: By 2018, additional programs from across EPA will promote practices to help Americans save energy and conserve resources, leading to expected greenhouse gas emissions reductions of 1,178.5 MMTCO₂Eq. from a baseline without adoption of efficient practices. Building Programs 215.5 MMTCO₂Eq., Industrial Programs 651.4 MMTCO₂Eq., SmartWay Transportation Partnership 100 MMTCO₂Eq., Pollution Prevention Programs 71 MMTCO₂Eq., Sustainable Materials Management Programs 117.4 MMTCO₂Eq., WaterSense Program 23 MMTCO₂Eq., Executive Order 13514[3] GHG Reduction Program 0.21 MMTCO₂Eq., This reduction compares to 621.08 MMTCO₂Eq. reduced in 2011. Baseline FY 2011: Building Programs 189.0 MMTCO₂Eq., Industrial Programs 357.9 MMTCO₂Eq., SmartWay Transportation Partnership 27.9 MMTCO₂Eq., Pollution Prevention Programs 17 MMTCO₂Eq., Sustainable Materials Management Programs 22.1 MMTCO₂Eq., WaterSense Program 7 MMTCO₂Eq., Executive Order 13514[3] GHG Reduction Program 0.18 MMTCO₂Eq.</p>									
	(PM G02) Million metric tons of carbon equivalent (MMTCO₂E) of greenhouse gas reductions in the buildings sector.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	130.2	143.0	156.9	168.7	182.6	196.2	188.0	216.3	MMTCO ₂ e
	Actual	143.4	163.5	189.0	221.9	267.3	Data Avail 12/2015			
<p>Additional Information: The baseline in 2004 is 89.5 million metric tons of carbon dioxide equivalent reductions. To serve as a basis for comparison in future years, EPA used the 2004 baseline to project into the future assuming no impact on greenhouse gas emissions from U.S. climate change programs. The baseline was developed as part of an interagency evaluation of the U.S. climate change programs in 2002, which built on similar baseline forecasts developed in 1993 and 1997 in the U.S. Climate Change Action Report (2002). Baseline data for carbon emissions related to energy use is based on data from the Energy Information Agency (EIA) and from EPA's Integrated Planning Model of the U.S. electric power sector. Baseline data for non-carbon dioxide (CO₂) emissions, including nitrous oxide and other high global warming potential gases are maintained by EPA.</p>										

(PM G06) Million metric tons of carbon equivalent (MMTCO2E) of greenhouse gas reductions in the transportation sector.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	5.5	15.4	23.7	28.0	33.0	61.0	70.0	76.0	MMTCO2e
Actual	5.9	17.3	27.9	38.9	51.6	61.7			

Additional Information: Starting with FY 2012, new program tools allow closer alignment with FY cycle and cumulative approach. These tools use real data so variations between modeled projections and actuals are to be expected. Synchronization applied to prior years. The baseline in 2004 is 0.7 million metric tons of carbon dioxide equivalent reductions from the SmartWay program. To serve as a basis for comparison in future years, EPA projected from the 2004 baseline into the future assuming no impact on greenhouse gas emissions from U.S. climate change programs. The baseline was developed as part of an interagency evaluation of the U.S. climate change programs in 2002, which built on similar baseline forecasts developed in 1993 and 1997 in the U.S. Climate Change Action Report (2002). Baseline data for carbon emissions related to energy use is based on data from the Energy Information Agency (EIA) and from EPA's Integrated Planning Model of the U.S. electric power sector. Baseline data for non-carbon dioxide (CO2) emissions, including nitrous oxide and other high global warming potential gases are maintained by EPA. EPA adjusted the actuals for FY 2010-2012 and targets for FY 2014 and FY 2015 in order to reflect updated methodology that incorporates the impact of EPA's Heavy Duty vehicle rules.

(PM G16) Million metric tons of carbon equivalent (MMTCO2E) of greenhouse gas reductions in the industry sector.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	267.3	304.0	346.2	372.9	421.9	461.8	540.3	567.0	MMTCO2e
Actual	293.7	362.8	386.4	378.1	Data Avail 4/2015	Data Avail 12/2015			

Additional Information: The baseline in 2004 is 201 million metric tons of carbon dioxide equivalent reductions from ENERGY STAR for the Industrial Sector, Non-CO2 Partnership Programs, Combined Heat and Power Partnership, Significant New Alternatives Policy (SNAP), and the Landfill Rule. To serve as a basis for comparison in future years, EPA projected from the 2004 baseline into the future assuming no impact on greenhouse gas emissions from U.S. climate change programs. The baseline was developed as part of an interagency evaluation of the U.S. climate change programs in 2002, which built on similar baseline forecasts developed in 1993 and 1997 in the U.S. Climate Change Action Report (2002). Baseline data is based on data from the Energy Information Agency (EIA) and from EPA's Integrated Planning Model of the U.S. electric power sector. Baseline data for non-carbon dioxide (CO2) emissions, including nitrous oxide and other high global warming potential gases are maintained by EPA.

(PM G18) Percentage of Annual Greenhouse Gas Emission Reports verified by EPA before publication.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target					93	95	95	95	Percent of Reports Verified
Actual					96	98			

Additional Information: The Greenhouse Gas Reporting Program, established in 2009, has 41 sectors that include approximately 10,000 reporters. Both facilities and suppliers are required to report their data annually by the reporting deadline of March 31st. After submission of the data, the Agency conducts a verification review that lasts approximately 150 days. The data verification process includes a combination of electronic checks, staff review, and follow-up with facilities to identify potential reporting errors and have them corrected before publication. The 150-day period includes 60 days for the EPA to review reports and identify potential data quality issues, 75 days for reporters to resolve these issues, and 15 days for the EPA to review responses or resubmitted reports. EPA plans to publish all of the data through its online, interactive publication tool (www.epa.gov/ghgreporting) each year by October 1st. In FY 2014, 95% of the reports published will be verified through the process described above.

Strategic Measure: By 2018, an additional 240 state, tribal, and community partners will integrate climate change data, models, information, and other decision support tools developed by EPA for climate change adaptation into their planning processes. (Baseline: 0.)

(PM AD1) Cumulative number of major scientific models and decision support tools used in implementing environmental management programs that integrate climate change science data.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				3	4	5	5	5	Major Models and Tools
Actual				3	4	7			

Additional Information: To ensure EPA's mission, EPA will build resilience to climate change by integrating considerations of climate data into major scientific models and decision support tools. Many of the outcomes EPA is working to attain are sensitive to climate, and every action EPA takes must be resilient to these fluctuations. The FY 2011 baseline is 0 major scientific models/decision support tools.

Strategic Measure: By 2018, 240 state, tribal, and community partners will incorporate climate change adaptation into the implementation of their environmental programs supported by major EPA financial mechanisms (grants, loans, contracts, and technical assistance agreements). (Baseline: 5.)

(PM AD3) Cumulative number of major grant, loan, contract, or technical assistance agreement programs that integrate climate science data into climate sensitive projects that have an environmental outcome.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				1	2	3	3	3	Major Programs
Actual				3	5	7			

Additional Information: To ensure EPA's mission, EPA will build resilience to climate change by integrating considerations of climate data into grant, loan, contract, and technical assistance programs. Many of the outcomes EPA is working to attain are sensitive to climate, and every action EPA takes must be resilient to these fluctuations. The FY 2011 baseline is 0 programs

Objective 2 - Improve Air Quality: Achieve and maintain health- and welfare-based air pollution standards and reduce risk from toxic air pollutants and indoor air contaminants.

Program Area	Performance Measures and Data									
(1) Reduce Criteria Pollutants and Regional Haze	Strategic Measure: By 2018, the population-weighted average concentrations of ozone (smog) in all monitored counties will decrease to 0.072 ppm compared to the average of 0.076 ppm in 2011, a reduction of 5 percent.									
	(PM A01) Annual emissions of sulfur dioxide (SO2) from electric power generation sources.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	9,400,000	8,450,000	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000	Tons Emitted
	Actual	5,700,000	5,166,000	4,544,000	3,319,000	Data Avail 4/2015	Data Avail 12/2015			
	<i>Additional Information:</i> The baseline in 1980 is 17.4 million tons of SO2 emissions from electric utility sources. This inventory was developed by the National Acid Precipitation Assessment Program (NAPAP) and is used as the basis for reduction in Title IV of the 1990 Clean Air Act Amendments (CAAA). Statutory SO2 emissions capped in 2010 at 8.95 million tons, approximately 8.5 million tons below 1980 emissions level. The data is contained in EPA's Clean Air Interstate Rule (CAIR), Acid Rain Program and Former NOx Budget Trading program 2010 Progress Report. Targets for this measure through 2010 are based on implementation of the nationwide Acid Rain Program alone whereas the (lower) target of 6 million tons for 2011-2014 recognizes implementation of the CAIR Programs in eastern states in combination with the Acid Rain Program.									
	(PM M9) Cumulative percentage reduction in population-weighted ambient concentration of ozone in monitored counties from 2003 baseline.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	10	11	12	13	15	16	16	16	Percent Reduction
	Actual	13	15	16	13	15	Data Avail 12/2015			
<i>Additional Information:</i> The baseline in 2003 is 15,972 million people parts per billion. The ozone concentration measure reflects improvements (reductions) in ambient ozone concentrations across all monitored counties, weighted by the populations in those areas. To calculate the weighting, pollutant concentrations in monitored counties are multiplied by the associated county populations. The 2014 and 2015 targets for performance measure M9 were recalibrated based upon a linear interpolation between currently available actual ambient ozone concentration values and those values projected for 2020 by the most recent Community Multi-scale Air Quality (CMAQ) model run.										

Strategic Measure: By 2018, the population-weighted average concentrations of inhalable fine particles in all monitored counties will decrease to 9.5 µg/m³ compared to the average of 10.4 µg/m³ in 2011, a reduction of 9 percent.

(PM M91) Cumulative percentage reduction in population-weighted ambient concentration of fine particulate matter (PM-2.5) in all monitored counties from 2003 baseline.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	5	6	15	16	20	28	29	30	Percent Reduction
Actual	17	23	26	26	29	Data Avail 12/2015			

Additional Information: The baseline in 2003 is 2,581 million people micrograms per cubic meter. The PM-2.5 concentration reduction annual measure reflects improvements (reductions) in the ambient concentration of fine particulate matter PM-2.5 pollution across all monitored counties, weighted by the populations in those areas. To calculate this weighting, pollutant concentrations in monitored counties are multiplied by the associated county populations. The program recalibrated the target in 2011 based on recent trend data. The 2014 and 2015 targets for performance measure M91 were recalibrated based upon a linear interpolation between currently available actual ambient PM2.5 concentration values and those values projected for 2020 by the most recent Community Multi-scale Air Quality (CMAQ) model run.

(PM P34) Cumulative tons of PM-2.5 reduced since 2000 from mobile sources.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	110,190	122,434	136,677	146,921	159,164	171,407	183,651	195,895	Tons Reduced
Actual	110,190	122,434	136,677	146,921	159,164	171,407			

Additional Information: The baseline for 2000 for PM-2.5 emissions from mobile sources is 510,550 tons. The 2000 Mobile6 inventory is used as the baseline for mobile source emissions.

Strategic Measure: Through 2018, maintain emissions of sulfur dioxide (SO₂) from electric power generation sources to 5.0 million tons per year compared to the 2009 level of 5.7 million tons emitted. (In 2011, these sources emitted 4.5 million tons.) (Rationale for baseline year: 2009 is the year immediately preceding the first year of SO₂ compliance under the Clean Air Interstate Rule [CAIR] and full implementation of Acid Rain's permanent cap on utility SO₂ emissions.)

(PM O34) Cumulative millions of tons of Nitrogen Oxides (NO_x) reduced since 2000 from mobile sources.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	3.05	3.39	3.73	4.07	4.41	4.74	5.08	5.42	Tons Reduced
Actual	3.05	3.38	3.73	4.07	4.41	4.74			

Additional Information: The baseline in 2000 for Nitrogen Oxide emissions from mobile sources is 11.8 million tons. The 2000 Mobile6 inventory is used as the baseline for mobile source emissions.

(PM M92) Cumulative percentage reduction in the number of days with Air Quality Index (AQI) values over 100 since 2003, weighted by population and AQI value.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	29	33	37	50	80	80	80	80	Percent Reduction
Actual	59	70	73	72	74	Data Avail 12/2015			

Explanation of FY 2013 Result: Given that meteorology plays a significant role in ozone formation and PM 2.5 emissions, it is challenging to estimate out year targets for this measure and to have result align precisely. Moreover, ambient concentrations for ozone and PM 2.5 have been relatively stable over the past few years and actuals for this measure has followed suit. The Agency continues to make progress towards Goal 1 Strategic Objectives, and will continue to work with its regulatory partners to improve the results of this measure.

Additional Information: The baseline in 2003 for the Air Quality Index (AQI) is zero percent reduction and the 2004 result is a 15.5% reduction. The AQI is an index for reporting daily air quality. An AQI value of 100 generally corresponds to the national air quality standard for the pollutant, which is the level EPA has set to protect public health. AQI values below 100 are generally thought of as satisfactory. When AQI values are above 100, air quality is considered to be unhealthy for certain sensitive groups of people and then for everyone as AQI values get higher. The program recalibrated the target in 2012 based on recent trend data.

(PM M94) Percent of major NSR permits issued within one year of receiving a complete permit application.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	78	78	78	78	78	78	78	78	Percent Issued
Actual	76	46	73	80	81	Data Avail 12/2015			

Additional Information: The baseline in 2004 is 61%. New Source Review (NSR) requires stationary sources of air pollution to get permits before they start construction. Permits are legal documents that the source must follow, and they specify what construction is allowed, what emission limits must be met, and often how the source must be operated. Usually NSR permits are issued by state or local air pollution control agencies, and the EPA issues the permit in some cases.

(PM M95) Percent of significant Title V operating permit revisions issued within 18 months of receiving a complete permit application.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	100	100	100	100	100	88	88	88	Percent Issued
Actual	87	82	84	86	91	Data Avail 12/2015			

Explanation of FY 2013 Result: EPA did not meet its target in FY 2013 as a result of increased workload and significantly reduced resources for state, tribal and local air pollution control agencies who issue the overwhelming majority of air permits in the United States; EPA has little control over the pace at which they are processed. States are also working to address greenhouse gas emissions in permits for the first time. The Agency continues to make progress towards Goal 1 Strategic Objectives and will continue to work with its regulatory partners and as necessary, adjust targets to reflect implementation realities.

Additional Information: The baseline in 2004 is 100%. Operating permits are legally enforceable documents that permitting authorities issue to air pollution sources after the source has begun to operate. Usually Title V permits are issued by state or local air pollution control agencies, and the EPA issues the permit in some cases. Title V permits must be renewed every five years. When a source (or facility) undergoes a major or "significant" revision to its operations that impacts emissions, a revision to the Title V operating permit must be sent to the permitting agency for review.

(PM M96) Percent of new Title V operating permits issued within 18 months of receiving a complete permit application.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	95	99	99	99	99	75	75	75	Percent Issued
Actual	70	67	72	76	60	Data Avail 12/2015			

Explanation of FY 2013 Result: Permitting authorities other than EPA issue the vast majority of Title V permits, and EPA has little control over the pace at which Title V operating permits are processed. Of note, in FY 2013, states were working to address greenhouse gas emissions in permits for the first time which added complexity to the review process. The Agency continues to make progress towards Goal 1 Strategic Objectives and will continue to work with its regulatory partners and as necessary, adjust targets to reflect implementation realities.

Additional Information: The baseline in 2004 is 75%. Operating permits are legally enforceable documents that permitting authorities issue to air pollution sources after the source has begun to operate. Usually Title V permits are issued by state or local air pollution control agencies, and the EPA issues the permit in some cases. Title V permits must be renewed every five years. When a new source (or facility) begins operations and has the potential to emit air pollution beyond a certain threshold, a new Title V operating permit must be sent to the permitting agency for review. The vast majority of permits are issued by state air agencies and it is not possible to precisely track variations in actual performance. However, the low performance in FY 13 may be attributed to states' inexperience in issuing permits with GHG limits.

(PM MM7) Percent of State Implementation Plans (SIPs) removed from backlog

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target					10	10	10	10	Percentage Removed
Actual					41	38.6			

Additional Information: The Clean Air Act requires states to develop a general plan to attain and maintain the National Ambient Air Quality Standards (NAAQS) in all areas of the country and a specific plan to attain the standards for each area designated nonattainment for a NAAQS. These plans, known as State Implementation Plans or SIPs, are developed by state and local air quality management agencies and submitted to EPA for approval. The baseline (SIP backlog count) for FY 2014 reporting is 699. The originally reported baseline was adjusted during FY14 to 699 because as regions begin to dive in to SIP actions, they find unrelated actions packed in to one SIP and during the year, the region may "unpack" these SIPs. This number will be a static number against which progress will be measured for the fiscal year. We expect that the high actuals reported for FY 13 and 14 are not sustainable as the mix of SIPs that regions will act on to reduce their backlog will be more complicated and contentious.

(PM MM9) Cumulative percentage reduction in the average number of days during the ozone season that the ozone standard is exceeded in non-attainment areas, weighted by population.										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	23	26	29	45	50	50	50	50	Percent Reduction	
Actual	47	56	58	54	59	Data Avail 12/2015				
<i>Additional Information:</i> The baseline in 2003 is zero.										
(PM N35) Limit the increase of Carbon Monoxide (CO) emissions from mobile sources compared to a 2000 baseline.										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	1.52	1.69	1.86	2.02	2.19	2.36	2.53	2.70	Tons Emitted	
Actual	1.52	1.69	1.86	2.02	2.19	2.36				
<i>Additional Information:</i> The baseline in 2000 for Carbon Monoxide emissions from mobile sources is 79.2 million tons. The 2000 Mobile6 inventory is used as the baseline for mobile source emissions.										
(PM O33) Cumulative millions of tons of Volatile Organic Compounds (VOCs) reduced since 2000 from mobile sources.										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	1.54	1.71	1.88	2.05	2.23	2.40	2.57	2.74	Tons Reduced	
Actual	1.54	1.71	1.88	2.05	2.23	2.40				
<i>Additional Information:</i> The baseline in 2000 for Volatile Organic Compounds emissions from mobile sources is 7.7 million tons. The 2000 Mobile6 inventory is used as the baseline for mobile source emissions.										
(2) Reduce Air Toxics	Strategic Measure: Through 2018, maintain air toxics (toxicity-weighted for cancer) emissions reductions to 4.2 million tons from the 1993 toxicity-weighted baseline of 7.2 million tons									
	(PM 001) Cumulative percentage reduction in tons of toxicity-weighted (for cancer risk) emissions of air toxics from 1993 baseline.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	36	36	36	37	42	42	42	41	Percent Reduction
Actual	40	40	61	61	61	Data Avail 2017				

	<p>Additional Information: The baseline in 1993 is 7.24 million tons. The toxicity-weighted emission inventory utilizes the National Emissions Inventory (NEI) for air toxics along with the Agency's compendium of cancer and non-cancer health risk criteria to develop a risk metric that can be tabulated on an annual basis. Air toxics emissions data are revised every three years with intervening years (the two years after the inventory year) interpolated utilizing inventory projection models. The FY 2011 through FY 2014 targets are based on expected estimates made with the rules and 2005 NEI inventory. They also incorporate population growth estimates, which indirectly project more area source (small source) emissions.</p>									
	<p>(PM 002) Cumulative percentage reduction in tons of toxicity-weighted (for non-cancer risk) emissions of air toxics from 1993 baseline.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	59	59	59	59	59	59	58	57	Percent Reduction	
Actual	53	53	55	55	55	Data Avail 2017				
	<p>Explanation of FY 2013 Result: While EPA did not meet its estimated target for FY 2013, the Agency continues to make progress towards Goal 1 Strategic Objectives and will continue to work to address emissions of air toxics. Over the years, EPA has reduced the gap between the targets and the actuals from 6% to 4%. The pollutant driving the noncancer risks is acrolein, with fires as the biggest source of acrolein. EPA's fire projections were likely on the lower-side which has impacted our ability to meet the target.</p> <p>Additional Information: The baseline in 1993 is 7.24 million tons. The toxicity-weighted emission inventory utilizes the National Emissions Inventory (NEI) for air toxics along with the Agency's compendium of cancer and non-cancer health risk criteria to develop a risk metric that can be tabulated on an annual basis. Air toxics emissions data are revised every three years with intervening years (the two years after the inventory year) interpolated utilizing inventory projection models. The FY 2011 through FY 2014 targets are based on expected estimates made with the rules and 2005 NEI inventory. They also incorporate population growth estimates, which indirectly project more area source (small source) emissions.</p>									
(4) Reduce Exposure to Indoor Air Pollutants	<p>Strategic Measure: By 2018, the number of future premature lung cancer deaths prevented annually through lowered radon exposure will increase to 1,056 from the 2008 baseline of 756 future premature lung cancer deaths prevented. The 2011 benchmark is 905 future premature lung cancer deaths prevented.</p>									
	<p>(PM R50) Percentage of existing homes with an operating radon mitigation system compared to the estimated number of homes at or above EPA's 4pCi/L action level.</p>									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	11.5	12.0	12.5	13.3	13.9	13.9	14.9	14.9	Percent of Homes
	Actual	12.0	12.3	12.9	14.1	15.0	Data Avail 12/2015			
	<p>Additional Information: The baseline in 2003 is 6.9 percent of homes with radon operating mitigation systems. Radon causes lung cancer, and is a threat to health because it tends to collect in homes, sometimes to very high concentrations. As a result, radon is the largest source of exposure to naturally occurring radiation.</p>									

(PM R51) Percentage of all new single-family homes (SFH) in high radon potential areas built with radon reducing features.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	31.5	33.0	34.5	36.0	37.5	37.5	40.5	40.5	Percent of Homes
Actual	36.1	40.1	38.2	44.6	Data Avail 4/2015	Data Avail 12/2015			

Additional Information: The baseline in 2003 is 20.7 percent of all new single-family homes. Radon causes lung cancer, and is a threat to health because it tends to collect in homes, sometimes to very high concentrations. As a result, radon is the largest source of exposure to naturally occurring radiation.

Strategic Measure: By 2018, the number of people taking all essential actions to reduce exposure to indoor environmental asthma triggers in homes and schools will increase to 9 million from the 2003 baseline of 3.0 million. EPA will place special emphasis on reducing racial and ethnic asthma disparities among children. The 2012 benchmark is 6.5 million people taking all essential actions to reduce exposure to indoor environmental asthma triggers.

(PM R16) Percentage of parents of children with asthma aware of the EPA asthma program media campaign.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	>20	>30	>30	>30	>30	>30	>30	>30	Percent Aware
Actual	30	Data Not Avail	36	Data Not Avail	37	37			

Additional Information: The baseline in 2005 is 31%. In order to advance environmental management of asthma, EPA, in collaboration with the Ad Council, raises public awareness of asthma and environmental factors that can affect asthma through innovative public service announcements (PSAs). These PSAs educate caregivers about indoor environmental asthma triggers and how to prevent asthma attacks. Awareness is measured by the percent of parents of a child with asthma who report seeing or hearing one or more of the campaign PSAs. Ad awareness is measured before and after the launch of a new wave of the campaign. "Data not available" indicates the time period where there is no new wave of the campaign and therefore no assessment.

(PM R17) Additional health care professionals trained annually on the environmental management of asthma triggers.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	2,000	2,000	2,000	3,000	3,000	3,000	1,000		Professionals Trained
Actual	4,614	4,153	5,600	4,914	7,237	4,679			

Additional Information: The baseline in 2003 is 2,360 trained health care professionals. Asthma is a serious, life-threatening respiratory disease that affects millions of Americans. In response to the growing asthma problem, EPA created a national, multifaceted asthma education and outreach program to share information about environmental factors that trigger asthma.

(PM R19) Cumulative number of programs supporting the delivery, infrastructure, and sustainable financing of environmental asthma interventions at home and school.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target								300	Programs
Actual									
<p><i>Additional Information:</i> The baseline for this new initiative in 2015 is zero programs. EPA is addressing the next important gap in comprehensive asthma care – equipping health, housing, environmental and health insurance programs to effectively support delivery, infrastructure and sustainable financing of environmental asthma interventions at home and school. Strong evidence indicates that many chronic health conditions like asthma disproportionately affect low income, minority, and tribal communities. Environmental pollutants in homes can cause and exacerbate asthma. Further evidence indicates that investment in home interventions will improve health outcomes and reduce and/or shift health care costs from medical treatment to secondary prevention. Programs addressing asthma at the local, tribal, state, regional, and federal level that support in-home asthma education, assessment and interventions will help low-income, minority, and tribal families and communities reduce their exposure to environmental asthma triggers.</p>									

Objective 3 - Restore and Protect the Ozone Layer: Restore and protect the earth's stratospheric ozone layer and protect the public from the harmful effects of ultraviolet (UV) radiation.

Program Area	Performance Measures and Data									
(1) Reduce Consumption of Ozone-Depleting Substances	<p>Strategic Measure: By 2015, U.S. consumption of hydrochlorofluorocarbons (HCFCs), chemicals that deplete the Earth’s protective ozone layer, will be less than 1,520 tons per year of ozone depletion potential from the 2009 baseline of 9,900 tons per year. By this time, as a result of worldwide reduction in ozone-depleting substances, the level of “equivalent effective stratospheric chlorine” (EESC) in the atmosphere will have peaked at 3.185 parts per billion (ppb) of air by volume and begun its gradual decline to less than 1.800 ppb (1980 level). [Note: This strategic measure will not be adjusted at this time because the baseline dates and milestones are set through the international treaty, the Montreal Protocol.]</p>									
	<p>(PM S01) Remaining US Consumption of hydrochlorofluorocarbons (HCFCs), chemicals that deplete the Earth's protective ozone layer, measured in tons of Ozone Depleting Potential (ODP).</p>									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	<9,900	<3,811	<3,811	<3,700	<3,700	<3,700	<1,520	<1,520	ODP Tons
	Actual	3,414	2,435	2,339	1,450	1,640	Data Avail 12/2015			
<p><i>Additional Information:</i> The baseline in 1989 for Ozone Depleting Substances consumed is 15,240 tons. The base of comparison for assessing progress is the domestic consumption cap of Class II HCFCs as set by the Parties to the Montreal Protocol. Each Ozone Depleting Substance (ODS) is weighted based on the damage it does to the stratospheric ozone - this is its ozone-depletion potential (ODP). Beginning on January 1, 1996, the cap was set at the sum of 2.8 percent of the domestic ODP-weighted consumption of CFCs in 1989 plus the ODP-weighted level of HCFCs in 1989. Consumption equals production plus import minus export.</p>										

Objective 4 - Minimize Exposure to Radiation: Minimize releases of radioactive material and be prepared to minimize exposure through response and recovery actions should unavoidable releases occur.

Program Area	Performance Measures and Data									
(1) Prepare for Radiological Emergencies	<p>Strategic Measure: Through 2018, EPA will maintain a 93 percent level of readiness of radiation emergency response program personnel and assets that meet functional requirements necessary to support federal radiological emergency response and recovery operations. (The 2012 readiness baseline is 91.5 percent. The level of readiness measure is based on the Agency’s Core National Approach to Response assessment process.</p>									
	<p>(PM R35) Level of readiness of radiation program personnel and assets to support federal radiological emergency response and recovery operations.</p>									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	90	90	90	90	90	93	93	93	Percent Readiness
	Actual	90	97	97	92	99	94			
	<p><i>Additional Information:</i> The baseline in 2005 is a 50% level of readiness. The level of readiness is measured as the percentage of response team members and assets that meet scenario-based response criteria.</p>									
	<p>(PM R36) Average time before availability of quality assured ambient radiation air monitoring data during an emergency.</p>									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	0.8	0.7	0.7	0.5	0.5	0.5	0.3	0.3	Days
	Actual	0.8	0.5	0.5	0.4	0.3	0.3			
	<p><i>Additional Information:</i> The baseline in 2005 is 2.5 days. The average time in availability is measured as time in days between collection and availability of data for release by EPA during emergency operations.</p>									
	<p>(PM R37) Time to approve site changes affecting waste characterization at DOE waste generator sites to ensure safe disposal of transuranic radioactive waste at WIPP.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	70	70	70	70	70	70	70	70	Days	
Actual	75	66	64	73	64	66				
<p><i>Additional Information:</i> The baseline in 2004 is 150 days.</p>										

GOAL 2: PROTECTING AMERICA'S WATERS

Protect and restore waters to ensure that drinking water is safe and sustainably managed, and that aquatic ecosystems sustain fish, plants, wildlife, and other biota, as well as economic, recreational, and subsistence activities.

Objective 1 - Protect Human Health: Achieve and maintain standards and guidelines protective of human health in drinking water supplies, fish, shellfish, and recreational waters, and protect and sustainably manage drinking water resources.

Program Area	Performance Measures and Data									
(1) Water Safe to Drink	Strategic Measure: By 2018, 92 percent of community water systems will provide drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection. (2005 baseline: 89 percent. FY 2013 universe: 51,535 community water systems. Status as of FY 2013: 91.4 percent.)									
	(PM aa) Percent of population served by CWSs that will receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	90	90	91	91	92	92	92	92	Population
	Actual	92.1	92	93.2	94.7	92	93			
	<i>Additional Information:</i> In 2005, 89 percent of the population served by community water systems received drinking water that met applicable drinking water standards.									
	(PM apc) Fund utilization rate for the DWSRF.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	89	86	89	89	89	89	89	89	Dollars
	Actual	92	91.3	90	90	91	92			
	<i>Additional Information:</i> In 2005, the fund utilization rate for the Drinking Water State Revolving Fund was 85 percent.									
	(PM aph) Percent of community water systems that have undergone a sanitary survey within the past three years (five years for outstanding performance or those ground water systems approved by the primacy agency to provide 4-log treatment of viruses).									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	95	95	95	95	95	83	79	79	CWSs	
Actual	88	87	92	89	93	87				

Program Area	Performance Measures and Data								
<p>Additional Information: In 2007, 92 percent of community water systems had undergone a sanitary survey. Prior to FY 2007, this measure tracked states rather than community water systems in compliance with this regulation. Starting in FY 2014, this measure includes ground water systems in addition to surface water systems. Ground water systems that have been approved by the primacy agency to provide 4-log treatment of viruses or have outstanding performance based on prior sanitary surveys may have sanitary surveys conducted no less than every five years (per sec. 142.16(o)(2)(iii)). Because the universe is larger, the FY 2014 target has been adjusted accordingly.</p>									
<p>(PM apm) Percent of community water systems that meets all applicable health-based standards through approaches including effective treatment and source water protection.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	90	90	90	90	90	90	90	90	Systems
Actual	89.1	89.6	90.7	91	91	91			
<p>Additional Information: In 2005, 89 percent of community water systems met all applicable health-based drinking water standards.</p>									
<p>(PM aps) Percent of Classes I, II and III salt solution mining wells that have lost mechanical integrity and are returned to compliance within 180 days, thereby reducing the potential to endanger underground sources of drinking water.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				90	85	85	85	85	Wells
Actual				85	89	89			
<p>Additional Information: There is no fixed point that can be used as a baseline for this measure, since the activity that we are monitoring - "Mechanical Integrity Loss" - has not yet occurred. The universe of wells losing mechanical integrity is not static.</p>									
<p>(PM apt) Number of Class V motor vehicle waste disposal wells (MVWDW) and large capacity cesspools (LCC) [approximately 23,640 in FY 2010] that are closed or permitted (cumulative).</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				20,840	25,225	25,225	25,225	25,225	Wells
Actual				25,225	26,027	26,560			
<p>Additional Information: FY 2012 is the first year of reporting for the measure. The baseline will be set at the FY 2012 end-of-year result.</p>									
<p>(PM dw2) Percent of person months during which community water systems provide drinking water that meets all applicable health-based standards.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	95	95	95	95	95	95	95	95	Person

Program Area	Performance Measures and Data									
	Actual	97.2	97.3	97.4	97.8	96.9	97			Months
	<i>Additional Information:</i> In 2005, community water systems provided drinking water that met all applicable health-based drinking water standards during 95 percent of "person months."									
	(PM pi1) Percent of population in each of the U.S. Pacific Island Territories (served by community water systems) that meets all applicable health-based drinking water standards, measured on a four-quarter rolling average basis.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	73	73	75	80	82	80	80	80	Population
	Actual	80	82	87	80	81	98			
	<i>Explanation of Results:</i> This result aligns with PM dw2 ("person-months") for the Region 9 Pacific Islands of: American Samoa, Guam and Northern Marianas.									
	<i>Additional Information:</i> In 2005, 95 percent of the population in American Samoa, 10 percent in the Commonwealth of the Northern Mariana Islands (CNMI) and 80 percent of Guam were served by CWSs that received drinking water that meets all applicable health-based standards. This measure is on a four-quarter rolling average basis.									
	Strategic Measure: By 2018, 88 percent of the population in Indian country served by community water systems will receive drinking water that meets all applicable health-based drinking water standards. (2005 baseline: 86 percent. FY 2013 universe: 1,013,222 people in Indian county served by community water systems. Status as of FY 2013: 77 percent.)									
	(PM E) Percent of the population in Indian Country served by community water systems that receive drinking water that meets all applicable health-based drinking water standards.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	87	87	87	87	87	87	87	87	Population	
Actual	81.2	87.2	81.2	84	77	89				
<i>Additional Information:</i> In 2005, 86 percent of the population served by community water systems received drinking water that met applicable drinking water standards.										
(2) Fish and Shellfish Safe to Eat	Strategic Measure: By 2018, reduce the percentage of women of childbearing age having mercury levels in blood above the level of concern to 2.1 percent. (2012 baseline (2009-2010 data): 2.3 percent of women of childbearing age have mercury blood levels above levels of concern identified by the National Health and Nutrition Examination Survey (NHANES)).									
	(PM fs1) Percent of women of childbearing age having mercury levels in blood above the level of concern.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	5.2	5.1	4.9	4.9	4.9	4.9	2.3	2.3	Women of Childbearing
Actual	2.8	Data	Data	2.3	2.3	2.3				

Program Area	Performance Measures and Data								
			Unavailable	Unavailable					Age
<i>Additional Information:</i> Baseline is 7.8 percent based on data collected in 1999-2000. Universe is population of women of childbearing age.									

Objective 2 - Protect and Restore Watersheds and Aquatic Ecosystems: Protect, restore, and sustain the quality of rivers, lakes, streams, and wetlands on a watershed basis, and sustainably manage and protect coastal and ocean resources and ecosystems.

Program Area	Performance Measures and Data									
(1) Improve Water Quality on a Watershed Basis	Strategic Measure: By 2018, attain water quality standards for all pollutants and impairments in more than 4,430 water bodies identified in 2002 as not attaining standards (cumulative). (2002 universe: 39,798 water bodies identified by states and tribes as not meeting water quality standards. Water bodies where mercury is among multiple pollutants causing impairment may be counted toward this target when all pollutants but mercury attain standards, but must be identified as still needing restoration for mercury; 1,703 impaired water bodies are impaired by multiple pollutants including mercury, and 6,501 are impaired by mercury alone. Status as of FY 2013: 3,679 water bodies attained standards.)									
	(PM L) Number of water body segments identified by states in 2002 as not attaining standards, where water quality standards are now fully attained (cumulative).									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	2,270	2,809	3,073	3,324	3,727	3,829	4,016	4,166	Segments
	Actual	2,505	2,909	3,119	3,527	3,679	3,866			
	<i>Additional Information:</i> 2002 baseline: 39,798 water bodies identified by states and tribes as not meeting water quality standards. Water bodies where mercury is among multiple pollutants causing impairment may be counted toward this target when all pollutants but mercury attain standards but must be identified as still needing restoration for mercury; 1,703 impaired water bodies are impaired by multiple pollutants, including mercury, and 6,501 are impaired by mercury alone. For future reporting, the EPA is evaluating a new approach for measuring local improvements in water quality. The goal is to provide a consistent method for measuring progress. This new approach will enable the EPA to more effectively track water quality outcomes from investments in protection and restoration.									
	(PM bpb) Fund utilization rate for the CWSRF.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	94.5	92	94.5	94.5	94.5	94.5	94.5	95	Dollars
	Actual	98	100	98	98	97	98			
<i>Additional Information:</i> In 2002, 91 percent was used as the baseline for this measure. It was calculated using data collected annually from all 51 state CWSRF programs (50 states and Puerto Rico).										

Program Area	Performance Measures and Data								
(PM bpc) Percent of all major publicly owned treatment works (POTWs) that comply with their permitted wastewater discharge standards.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	86.0	86.0	86.0	86.0	86.0	86.0			POTWs
Actual	Data Unavailable	86.9	86.7	88.3	88.3	Data Avail 04/2015			
<i>Explanation of Results:</i> Data will be available in March or April of 2015.									
(PM bpf) Estimated annual reduction in millions of pounds of phosphorus from nonpoint sources to water bodies (Section 319 funded projects only).									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	Pounds (Million)
Actual	3.5	2.6	4.8	4.4	3.5	Data Avail 03/2015			
<i>Explanation of Results:</i> EPA collects this information in its Grants Reporting and Tracking System (GRTS) for Section 319-funded on-the-ground implementation projects that will reduce phosphorus-loads to water bodies. States are not required to enter this information into GRTS until after one full year of project implementation, so that field data can be collected to support the model calculations. Results are reported in GRTS by mid-February for the past 12 months. Therefore, FY14 results will be available March 1, 2015.									
<i>Additional Information:</i> In 2005, there was a reduction of 558,000 lbs of phosphorus from nonpoint sources.									
(PM bpg) Estimated additional reduction in million pounds of nitrogen from nonpoint sources to water bodies (Section 319 funded projects only).									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	8.5	8.5	8.5	8.5	9.1	9.1	9.1	9.1	Pounds (Million)
Actual	9.1	9.8	12.8	9	10.4	Data Avail 03/2015			
<i>Explanation of Results:</i> EPA collects this information in its Grants Reporting and Tracking System (GRTS) for Section 319-funded on-the-ground implementation projects that will reduce nitrogen-loads to water bodies. States are not required to enter this information into GRTS until after one full year of project implementation, so that field data can be collected to support the model calculations. Results are reported in GRTS by mid-February for the past 12 months. Therefore, FY14 results will be available March 1, 2015.									
<i>Additional Information:</i> In 2005, there was a reduction of 3.7 million lbs of nitrogen from nonpoint sources.									

Program Area	Performance Measures and Data								
(PM bph) Estimated additional reduction in thousands of tons of sediment from nonpoint sources to water bodies (Section 319 funded projects only).									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	700	700	700	700	1,100	1,200	1,200	1,200	Tons (Thousand)
Actual	2,300	2,100	2,007	1,100	1,169	Data Avail 03/2015			
<p><i>Explanation of Results:</i> EPA collects this information in its Grants Reporting and Tracking System (GRTS) for Section 319-funded on-the-ground implementation projects that will reduce sediment-loads to water bodies. States are not required to enter this information into GRTS until after one full year of project implementation, so that field data can be collected to support the model calculations. Results are reported in GRTS by mid-February for the past 12 months. Therefore, FY14 results will be available March 1, 2015.</p> <p><i>Additional Information:</i> In 2005, there was a reduction of 1.68 million tons of sediment from nonpoint sources.</p>									
(PM bpk) Number of TMDLs that are established by states and approved by the EPA [state TMDL] on a schedule consistent with national policy (cumulative). [A TMDL is a technical plan for reducing pollutants in order to obtain water quality standards. The terms "approved" and "established" refer to the completion and approval of the TMDL itself.]									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	33,540	39,101	41,235	43,781	56,627	61,390			TMDLs
Actual	36,487	38,749	41,231	43,933	59,210	62,539			
<p><i>Explanation of Results:</i> In FY14, states developed all of the TMDLs. In particular, Florida developed over 1,200 TMDLs, Montana continued to work hard to complete their consent decree requirements, as well as Utah, Wyoming, New York, California exceeding their commitments. FY14 will be the last year that the 303(d) Program reports on this measure because the Program will transition to new measures in FY15 that will report on the area addressed by a TMDL, alternative restoration, or protection plan. To date, EPA and states have developed 71,390 TMDLs, of which 62,539 were developed by states.</p> <p><i>Additional Information:</i> Cumulatively, more than 59,000 state TMDLs were completed through FY 2013. A TMDL is a technical plan for reducing pollutants in order to attain water quality standards. The terms "approved" and "established" refer to the completion and approval of the TMDL itself.</p>									
(PM bpl) Percent of high-priority state NPDES permits that are issued in the fiscal year.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	95	95	100	100	80	80	80	80	Permits
Actual	147	142	135	130	55	80			

Program Area	Performance Measures and Data								
<p>Additional Information: Priority Permits are permits in need of reissuance that have been identified by states as environmentally or programmatically significant. The annual universe of Priority Permits includes the number of permits selected as priority, from which a subset will be issued in the current fiscal year. In 2005, 104% of the designated priority permits were issued in the fiscal year. Starting in FY2013, results can no longer exceed 100% issuance due to a refinement of the measure definition, and the target was revised accordingly. The universe used to calculate percentage results changed from the number of permits committed to issuance in the current fiscal year to the total number of permits selected as priority.</p>									
<p>(PM bpp) Percent of submissions of new or revised water quality standards from states and territories that are approved by the EPA.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	85	85	85	85	87	87			Submissions
Actual	93.2	90.9	91.8	88.9	82.4	89.7			
<p>Additional Information: In 2004, the baseline was 87.6 percent submissions approved.</p>									
<p>(PM bps) Number of TMDLs that are established or approved by the EPA [total TMDL] on a schedule consistent with national policy (cumulative). [A TMDL is a technical plan for reducing pollutants in order to attain water quality standards. The terms "approved" and "established" refer to the completion and approval of the TMDL itself.]</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	38,978	44,560	49,375	52,218	65,293	70,238			TMDLs
Actual	41,866	46,817	49,663	52,585	68,061	71,390			
<p>Explanation of Results: In FY14, states developed all of the TMDLs. In particular, Florida developed over 1,200 TMDLs, Montana continued to work hard to complete their consent decree requirements, as well as Utah, Wyoming, New York, California exceeding their commitments. FY14 will be the last year that the 303(d) Program reports on this measure because the Program will transition to new measures in FY15 that will report on the area addressed by a TMDL, alternative restoration, or protection plan. To date, EPA and states have developed 71,390 TMDLs, of which 62,539 were developed by states.</p>									
<p>Additional Information: Cumulatively, EPA and states completed more than 68,000 TMDLs through FY 2013. A TMDL is a technical plan for reducing pollutants in order to attain water quality standards. The terms "approved" and "established" refer to the completion and approval of the TMDL itself.</p>									
<p>(PM bpv) Percent of high-priority EPA and state NPDES permits (including tribal) that are issued in the fiscal year.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	95	95	100	100	80	80	80	80	Permits
Actual	144	138	132	128	55	77			

Program Area	Performance Measures and Data								
<p>Explanation of Results: Priority permits are often the most complex and time-consuming permits to issue. A few states, while working diligently on reissuing these permits, were not able to complete the process within the fiscal year for all of their selected priorities. Only one Region as a whole did not meet their FY14 goal, which was due to EPA objections to several Pennsylvania draft permit for facilities discharging to the Chesapeake Bay that were not resolved during the fiscal year.</p> <p>Additional Information: Priority Permits are permits in need of reissuance that have been identified by states or EPA Regions as environmentally or programmatically significant. The annual universe of Priority Permits includes the number of permits selected as priority, from which a subset will be issued in the current fiscal year. In 2005, 104% of the designated priority permits were issued in the fiscal year. Starting in FY2013, results can no longer exceed 100% issuance due to a refinement of the measure definition, and the target was revised accordingly. The universe used to calculate percentage results changed from the number of permits committed to issuance in the current fiscal year to the total number of permits selected as priority.</p>									
<p>(PM bpw) Percent of states and territories that, within the preceding 3-year period, submitted new or revised water quality criteria acceptable to the EPA that reflect new scientific information from the EPA or sources not considered in previous standards.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	68	66	64.3	64.3	64.3	66.1	67.9	73.2	States and Territories
Actual	62.5	67.9	69.6	69.6	58.9	51.8			
<p>Explanation of Results: States and territories missed the target, falling short by a total of 8. States have had difficulty submitting criteria that are approvable to EPA due to local policy and resource constraints. Four states and territories that submitted standards after the measure's deadline for 2014 will likely be included in the results for 2015. EPA is working with states and territories to improve overall performance in 2015.</p> <p>Additional Information: In 2004, the baseline was 70% of states and territories submitting acceptable water quality criteria reflecting new scientific information.</p>									
<p>(PM bpx) Extent of priority areas identified by each state that are addressed by EPA-approved TMDLs or alternative restoration approaches for impaired waters that will achieve water quality standards. These areas may also include protection approaches for unimpaired waters to maintain water quality standards.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target							8%	8%	Priority Watershed Areas
Actual									
<p>Additional Information: This is a new measure replacing the measures that tracked state and total TMDL development. Cumulatively, EPA and states completed more than 71,000 TMDLs through FY 2014. A TMDL is a technical plan for reducing pollutants in order to attain water quality standards. The terms "approved" and "established" refer to the completion and approval of the TMDL itself. The universe for the measure is 100% of watershed areas corresponding to priority waters identified by each state. The baseline is the extent of priority areas identified by each state that have been addressed by EPA-approved TMDLs or alternative restoration approaches for impaired waters, or protection approaches for unimpaired waters, at the beginning of the year when the baseline is established. Baseline information will begin to be available in FY 2015, but finalized in FY 2016. The target is the extent of areas within priority areas projected to have a TMDL or alternative restoration or protection plan in 2022. States will identify annual commitments in each fiscal year to work toward the 2022 target.</p>									

Program Area	Performance Measures and Data								
	(PM wq2) Remove the specific causes of water body impairment identified by states in 2002 (cumulative).								
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	6,891	8,512	9,016	10,161	11,634	12,134	12,788	13,288	Causes
Actual	7,530	8,446	9,527	11,134	11,754	12,288			
	<i>Additional Information:</i> In 2002, an estimate of 69,677 specific causes of water body impairments were identified by states. For future reporting, the EPA is evaluating a new approach for measuring local improvements in water quality. The goal is to provide a consistent method for measuring progress. This new approach will enable the EPA to more effectively track water quality outcomes from investments in protection and restoration.								
	Strategic Measure: By 2018, improve water quality conditions in 575 impaired watersheds nationwide using the watershed approach (cumulative). (2002 baseline: Zero watersheds improved of an estimated 4,800 impaired watersheds of focus having one or more water bodies impaired. The watershed boundaries for this measure are those established at the “12-digit” scale by the U.S. Geological Survey (USGS). Watersheds at this scale average 22 square miles in size. “Improved” means that one or more of the impairment causes identified in 2002 are removed for at least 40 percent of the impaired water bodies or impaired miles/acres, or there is significant watershed-wide improvement, as demonstrated by valid scientific information, in one or more water quality parameters associated with the impairments. Status as of FY 2013: 376 improved watersheds.)								

(PM uw1) Number of urban water projects initiated addressing water quality issues in the community.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				3	10	30	22	49	Projects
Actual				46	9	65			

Explanation of Results: We exceeded our targets (65 total grants = 28 NFWF grants and 37 Urban Waters Small grants).

Additional Information: This measure tracks progress in grants that help communities access, improve, and benefit from their urban waters and surrounding land. The target of 30 projects initiated for FY 2014 includes 10 projects under EPA’s Urban Waters Small Grants (direct grants) and 20 projects under the Five-Star and Urban Waters Restoration Program managed by the National Fish and Wildlife Foundation (sub-grants with EPA and leveraged public and private funds). Projects under both programs advance water quality improvement and EPA investments are consistent with CWA Section 104(b)(3) authority. In FY 2015, all grants will be awarded from the Five Star and Urban Waters Restoration Program.

(PM uw2) Number of urban water projects completed addressing water quality issues in the community (cumulative).

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target							61	78	Projects
Actual									

Additional Information: As this was a new measure in FY 2012, projects were not completed in FY 2013 or FY 2014. Measure was deactivated for FY 2013 and 2014. Measure reactivated in FY 2015 to track cumulative projects completed. Included in the FY 2015 target are grants funded in part by the Urban Water Program funding and through the Five Star and Urban Waters Restoration Program managed by the National Fish and Wildlife Foundation.

(PM wq3) Improve water quality conditions in impaired watersheds nationwide using the watershed approach (cumulative).

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	102	141	208	312	370	408	446	484	Watersheds
Actual	104	168	271	332	376	411			

Additional Information: In 2002, there were 0 watersheds improved of an estimated 4,800 impaired watershed of focus having 1 or more water bodies impaired. The watershed boundaries for this measure are those established at the "12-digit" scale by the U.S. Geological Survey. Watersheds at this scale average 22 square miles in size. "Improved" means that that one or more of the impairment causes identified in 2002 are removed for at least 40 percent of the impaired water bodies or impaired miles/acres, or there is significant watershed-wide improvement, as demonstrated by valid scientific information, in one or more water quality parameters associated with the impairments.

Strategic Measure: By 2018, in coordination with other federal agencies, provide access to basic sanitation for 91,900 American Indian and Alaska Native homes. (Status as of FY 2013 baseline: 69,783 homes. Universe: 360,000 homes.)

	(PM Opb) Percent of serviceable rural Alaska homes with access to drinking water supply and wastewater disposal.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	96	98	92	93	93	93.5	92.5	93	Homes	
Actual	91	92	92	91	91	94.4				
<i>Additional Information:</i> In 2003, 77 percent of serviceable rural Alaska homes had access to drinking water supply and wastewater disposal. The manner in which this number is calculated changed in 2013 as the State of Alaska moved from an annual housing survey count to a GIS-based home mapping system.										
	(PM Opd) Percent of project federal funds expended on time within the anticipated project construction schedule set forth in the Management Control Policy.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	94	94.5	95	95.5	95	95			Dollars	
Actual	90.5	85	92	84.2	89.8	100				
<i>Additional Information:</i> A baseline had been set in 2008 of 93.5 percent.										
(2) Improve Coastal and Ocean Waters	Strategic Measure: By 2018, improve regional coastal aquatic ecosystem health, as measured on the "good/fair/poor" scale of the National Coastal Condition Report. (FY 2012 baseline: National rating of "fair" or 3.0 where the rating is based on a 4-point system ranging from 1.0 to 5.0 in which 1 is poor and 5 is good using the National Coastal Condition Report indicators for water and sediment, coastal habitat, benthic index, and fish contamination.)									
	(PM sf3) At least seventy-five percent of the monitored stations in the near shore and coastal waters of the Florida Keys National Marine Sanctuary will maintain Chlorophyll a(CHLA) levels at less than or equal to 0.35 ug l-1 and light clarity (Kd) levels at less than or equal to 0.20 m-1.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target			75	75	75	75	75	75	Stations
	Actual			85.4	CHLA: 70.9; KD: 72.5	>75 (CHLA: 84.5; KD: 80.4)	CHLA = 86.0; Kd = 87.2			
<i>Additional Information:</i> In 2005, total water quality was at chl < 0.2 ug/l, light attenuation < 0.13/meter.										
(PM sf4) At least seventy-five percent of the monitored stations in the near shore and coastal waters of the Florida Keys National Marine Sanctuary will maintain dissolved inorganic nitrogen (DIN) levels at less than or equal to 0.75 uM and total phosphorus (TP) levels at less than or equal to 0.25 uM.										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	

	Target			75	75	75	75	75	75	Stations
	Actual			73.6	DIN: 81; TP: 89.5	<75 (DIN: 60.0; TP: 82.3)	DIN=72.6; TP=87.6			
<p>Explanation of Results: This measure has two parts and requires both DIN and TP targets be met to achieve the measure. The EPA did not meet the target for DIN, but did meet the target for TP. Since 1995 elevated DIN numbers have been found closer to shore suggesting human impact. The elevated FY14 DIN number may suggest increasing polluted runoff entering the waterways or may be a bias in the dataset introduced by the reduction of monitoring stations in the western FKMNS (less human impact) and an increase in nearshore shores (heavily human impacted sites).</p> <p>Additional Information: The baseline for DIN is <0.75 uM (76.3 percent); TP < 0.25 uM (89.9 percent).</p>										
<p>(PM sf5) Improve the water quality of the Everglades ecosystem as measured by total phosphorus, including meeting the 10 ppb total phosphorus criterion throughout the Everglades Protection Area marsh and the effluent limits for discharges from stormwater treatment areas.</p>										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	Maintain	Maintain	Maintain	Maintain	Maintain	Maintain			Parts/Billion	
Actual	Not Maintained	Not Maintained	Not Maintained	Not Maintained	Not Maintained	Not Maintained				
<p>Explanation of Results: As in all previous years, final FY14 EOY results for SFL SP48 will not be available until March 2015, but the status of "measure not met" will not change. In 2014 the TP marsh data maintained the baseline in all unimpacted areas since they were lower than the 2005 baseline. Stormwater Treatment Area discharges maintained the baseline for all STAs except STA3/4. Therefore, overall the baseline was not maintained. All of the impacted areas of the Everglades marsh did not meet the 10 part per billion criterion. However, this measure has been revised for FY15.</p> <p>Additional Information: In 2005, the average annual geometric mean phosphorus concentrations were 5 ppb in the Everglades National Park, 10 ppb in Water Conservation 3A, 13 ppb in the Loxahatchee National Wildlife Refuge, and 18 ppb in Water Conservation Area 2A; annual average flow-weighted from total phosphorus discharges from Stormwater Treatment Areas ranged from 13 ppb for area 3/4 and 98 ppb for area 1W. Effluent limits will be established for all discharges, including Stormwater Treatment Areas.</p>										
<p>(PM sf6) The number of Everglades Stormwater Treatment Areas (STAs) with the annual total phosphorus (TP) outflow less than or the same as the five-year annual average TP outflow, working towards the long-term goal of meeting the 10 parts per billion annual geometric mean.</p>										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target							3	3	Stormwater Treatment Areas	
Actual										

<p><i>Additional Information:</i> This was a new measure for FY 2015, replacing PM sf5. The baseline period is the most recent 5 years. The 5-year baseline takes into account variability due to climatic conditions including extremely wet or dry years which are common in South Florida. For FY 2015, the 5-year baseline, 2010 to 2015, is 36 parts per billion (ppb) for STA-1E, 35 ppb for STA-1W, 21 ppb for STA-2, 17 ppb for STA-3/4, and 54 ppb for STA-5/6. The universe is 5 STAs. This measure is working towards the long-term goal of the phosphorus criterion for the Everglades marsh, a 5-year geometric mean of 10 ppb. The equivalent flow-weighted mean discharge concentration at the STAs is 13 ppb.</p>
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	<p>Strategic Measure: By 2018, 95 percent of active dredged material ocean dumping sites, as determined by 3-year average, will have achieved environmentally acceptable conditions (as reflected in each site’s management plan and measured through onsite monitoring programs). (2013 baseline: 96 percent. FY 2012 universe is 67.) (Due to variability in the universe of sites, results vary from year to year (e.g., between 85 percent and 99 percent). While this much variability is not expected every year, the results are expected to have some change each year.)</p>								
	<p>(PM co5) Percent of active dredged material ocean dumping sites that will have achieved environmentally acceptable conditions (as reflected in each site's management plan).</p>								
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	98	98	98	95	95	95	95	95	Sites
Actual	99	90.1	93	97	96	95			
	<p><i>Additional Information:</i> The 2013 baseline is 66 sites.</p>								
	<p>Strategic Measure: By 2018, working with partners, protect or restore an additional (i.e., measuring from 2012 forward) 600,000 acres of habitat within the study areas for the 28 estuaries that are part of the National Estuary Program. (2013 baseline: 1,295,327 acres of habitat protected or restored, cumulative from 2002-2013. In FY 2013, 127,594 acres were protected or restored.)</p>								
	<p>(PM 202) Acres protected or restored in National Estuary Program study areas.</p>								
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	Acres
Actual	125,410	89,985	62,213	114,575	127,594	93,557			
	<p><i>Explanation of Results:</i> Factors contributing to the number of acres protected and restored each year by the NEPs and their partners are numerous and complex making it difficult to accurately forecast with any degree of certainty. A few reasons we missed are target are a result in delays in private landowner negotiations, coordination delays with multiple partners, permit and funding delays, and a decline in Federal funding and subsequent State match.</p>								
	<p><i>Additional Information:</i> 2013 Baseline: 1,295,323 acres of habitat protected or restored; cumulative from 2002-2013.</p>								
(3) Increase Wetlands	<p>Strategic Measure: By 2018, working with partners, achieve a net increase of wetlands nationwide, with additional focus on coastal wetlands, and biological and functional measures and assessment of wetland condition. (2012 baseline: 110.1 million acres of wetlands in the conterminous United States, and 62,300 wetland acres were lost over 2004-2009.) (“No net loss” of wetlands is based on requirements for mitigation in CWA Section 404 permits and not the actual mitigation attained.)</p>								
	<p>(PM 4E) In partnership with the U.S. Army Corps of Engineers, states, and tribes, achieve no net loss of wetlands each year under the Clean Water Act Section 404 regulatory program. ("No net loss" of wetlands is based on requirements for mitigation in CWA 404 permits and not the actual mitigation attained.)</p>								

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	Acres	
Actual	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss	No Net Loss				
<i>Additional Information:</i> EPA receives data for this measure from the Army Corps of Engineers (ACE). ACE recently finalized its database and was able to collect actual data for the first time in FY 2009.										
(PM 4G) Number of acres restored and improved under the 5-Star, NEP, 319, and great water body programs (cumulative).										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	88,000	110,000	150,000	170,000	190,000	220,000	230,000	240,000	Acres	
Actual	103,507	130,000	154,000	180,000	207,000	221,000				
<i>Additional Information:</i> This measure describes the wetland acres restored through only EPA programs. Information on the national status of wetland gains and losses regardless of the cause is provided every five years by the U.S. Fish and Wildlife Service (USFWS). The most recent report (U.S. Fish and Wildlife Service, Status and Trends of Wetlands in the Conterminous United States 2004 to 2009: http://www.fws.gov/wetlands/Status-And-Trends-2009/index.html) noted an annual net loss of 13,800 acres.										
(4) Great Lakes	Strategic Measure: By 2018, implement all management actions necessary for later delisting at 12 Areas of Concern in the Great Lakes (cumulative). (2012 baseline: 2.)									
	(PM 433) Improve the overall ecosystem health of the Great Lakes by preventing water pollution and protecting aquatic systems (using a 40-point scale).									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	No Target Established	No Target Established	23.4	21.9	23.4	23.4			Point on a 40-point scale
	Actual			21.9	23.9	24.7	24.5			
	<i>Additional Information:</i> Results from this measure are achieved through GLRI funding as well as other non-GLRI federal and/or state funding. The ecosystem health index for the Great Lakes in 2002 was 20. Index value for 2010 = 22.7. This was previously a long-term measure, so no data is included for FY 2009 or FY 2010. There is insufficient information to predict increases or decreases to the underlying components of the Index; consequently, no change is proposed in the target from FY 2014 to FY 2015. Measure is not in GLRI Action Plan II. Measure will not be reported after FY 2014.									
	(PM 620) Cumulative percentage decline for the long-term trend in concentrations of PCBs in whole lake trout and walleye samples.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	5	10	37	40	43	46			Percent

	Actual	6	43	44	43	46	49.5			Decline
<p><i>Additional Information:</i> Results from this measure are achieved through GLRI funding as well as other non-GLRI federal and/or state funding. On average, total PCB concentrations in whole Great Lakes top predator fish have recently declined 5 percent annually - average concentrations at Lake sites from 2002 were: L Superior-9ug/g; L Michigan- 1.6ug/g; L Huron- .8ug/g L Erie- 1.8ug/g; and L Ontario- 1.2ug/g. Measure is not in GLRI Action Plan II. Measure will not be reported after FY 2014.</p>										

(PM 625) Areas of Concern Beneficial Use Impairments removed (cumulative).

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	21	20	26	33	41	46	60	65	BUIs Removed
Actual	12	12	26	33	41	52			

Additional Information: Results from this measure are achieved through GLRI funding as well as other non-GLRI federal and/or state funding. Universe is 255. An intensive review of this metric conducted during the preparation of GLRI Action Plan II in FY 2014 determined that the number of beneficial use impairments removed prior to the implementation of the GLRI was overstated by two. The 2014 review determined that the delisting of the Oswego Area of Concern in 2006 resulted from the removal of four BUIs, not six. Consequently, the number of “actual” BUIs reported in the table for FYs 2009 through 2013 included the six BUIs believed to have been removed at the Oswego Area of Concern. For FY 2014, the number of actual BUIs reported as removed has been corrected to reflect the true number of BUIs removed at the Oswego Area of Concern. However, the number of actual BUIs reported in FY2010 is accurate since the intensive review also revealed that two BUIs had been removed in FY2010 but had not been reported until FY 2011.

(PM 626) Number of Areas of Concern in the Great Lakes where all management actions necessary for delisting have been implemented (cumulative).

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			1	3	4	5	8	9	AOCs
Actual			2	2	3	7			

Additional Information: Universe of 31; baseline of 1. Results from this measure are achieved through GLRI funding as well as other non-GLRI federal and/or state funding.

(PM 627) Rate of aquatic nonnative species newly detected in the Great Lakes ecosystem.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			1.0	0.8	0.8	0.8			Species
Actual			0.83	0.77	0.71	0.67			

Additional Information: During the ten-year period prior to the Great Lakes Restoration Initiative (2000-2009), thirteen new invasive species were believed to be discovered within the Great Lakes. This is a baseline rate of invasion of 1.3 species per year. NOAA scientists have since reclassified the detection dates of three species based on a reassessment and categorization of available data. This alters the baseline to 1.0 species per year (10 species from 2000-2009). The FY 2013 and FY 2014 target of 0.8 is based on this new baseline of 1.0 species per year. This target also assumes the same rate of detection (one species over the five years of the Action Plan) as the original targets. Results from this measure are achieved through GLRI funding as well as other non-GLRI federal and/or state funding. Measure is not in GLRI Action Plan II. Measure will not be reported after FY 2014.

(PM 628) Number of acres controlled by GLRI-funded projects (cumulative).

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			1,500	15,500	34,000	38,000	94,500	104,500	Acres

Actual			13,045	31,474	35,924	84,500			
<i>Additional Information:</i> There were zero acres managed for populations of invasive species controlled to a target level in 2005.									
(PM 629) Number of GLRI-funded Great Lakes rapid responses or exercises conducted.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			4	12	26	35	8	8	Number Responses/Plans
Actual			8	23	30	38			
<i>Additional Information:</i> There were zero multi-agency rapid response plans established, mock exercises to practice responses carried out under those plans, and/or actual response actions in 2005. Measure changed to annual (non-cumulative) measure beginning in FY 2015, per GLRI Action Plan II.									
(PM 630) Five-year average annual loadings of soluble reactive phosphorus (metric tons per year) from tributaries draining targeted watersheds.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			0	0.5	1.0	1.0			Metric Tons/Year
Actual			Data Unavailable	Data Unavailable	Data Unavailable	Data Unavailable			
<i>Explanation of Results:</i> Data do not exist to determine whether targets are being met; however, improved phosphorus data are now being collected in all five targeted watersheds (Fox, Saginaw, Maumee, St. Louis, and Genessee) to better estimate annual average loadings of soluble reactive phosphorus (SRP). Sufficient historical data does not exist to allow for calculation of 5-year averages through the 2010 water year for the Saginaw, Genessee, and St. Louis Rivers. Assessment of the historical data for the Fox and Maumee Rivers illustrates the inherent problems with tracking changes to SRP loadings from tributaries, given the yearly variability of rainfall and other climatic factors; therefore, results of this measure may not indicate a trend from year to year. For example, when comparing the 2003-2007 baseline from the Maumee River to the 5-year rolling averages from 2005-2009 and 2006-2010, SRP loadings changed from a 3.8% increase to a 3.4% reduction. Similarly, when comparing the 2003-2007 baseline from the Fox River to the 5-year rolling averages from 2004-2008 and 2005-2009, SRP loadings changed from a 3.6% increase to a 15.8% reduction. Phosphorus reduction will be reported differently under Great Lakes Restoration Initiative Action Plan II.									
<i>Additional Information:</i> This measure is being reported in percent reductions of five-year average annual loadings of soluble reactive phosphorus (metric tons per year). The existing measure cannot provide technically sound and statistically valid results sufficient to provide long-term trend information. Results from this measure are achieved through GLRI funding as well as other non-GLRI federal and/or state funding. Measure is not in GLRI Action Plan II. Measure will not be reported after FY 2014.									
(PM 632) Percent increase in acreage in Great Lakes watershed with USDA conservation practices implemented to reduce erosion, nutrients, and/or pesticide loading.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			2	8	20	30			Acres
Actual			62	70	60	68			

Explanation of Results: 277,726 acres were put into USDA conservation practices. This is a 68.3% increase over the baseline of 165,000 acres.

Additional Information: The baseline is 165,000 acres in the Great Lakes watershed with USDA conservation practices implemented to reduce erosion, nutrients, and/or pesticide loading. The number reported is the percent increase over the baseline of 165,000 acres. Results from this measure are achieved through GLRI funding as well as other non-GLRI federal and/or state funding. Measure is not in GLRI Action Plan II. Measure will not be reported after FY 2014.

(PM 633) Percent of populations of native aquatic non-threatened and non-endangered species self-sustaining in the wild (cumulative).

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			33%; 48/147	33%; 48/147	34%; 50/147	35%; 52/147			Species
Actual			31%; 46/147	33%; 48/147	34%; 50/147	35%; 52/147			

Additional Information: In 2009, 27 percent of populations of native aquatic non-threatened and non-endangered species were self-sustaining in the wild. Results from this measure are achieved through GLRI funding as well as other non-GLRI federal and/or state funding. Measure is not in GLRI Action Plan II. Measure will not be reported after FY 2014.

(PM 634) Number of acres of wetlands and wetland-associated uplands protected, restored and enhanced (cumulative).

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			5,000	11,000	68,000	88,000			Acres
Actual			9,624	65,639	83,702	102,349			

Additional Information: There were zero acres of wetlands and wetland-associated uplands protected, restored and enhanced in 2005 through GLRI. Measure is not in GLRI Action Plan II. Measure will not be reported after FY 2014.

(PM 635) Number of acres of coastal, upland, and island habitats protected, restored and enhanced (cumulative).

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			15,000	15,000	33,000	38,000			Acres
Actual			12,103	28,034	33,250	48,711			

Additional Information: There were zero acres of coastal, upland, and island habitats protected, restored and enhanced in 2005. Measure is not in GLRI Action Plan II. Measure will not be reported after FY 2014.

(PM 636) Number of species delisted due to recovery.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			0	1	2	2			Species
Actual			1	1	1	1			

Explanation of Results: Achieving the target was dependent on recovery of the federally threatened Pitcher's Thistle in the Great Lakes (targeted for delisting in the GLRI Action Plan). Pitcher's Thistle recovery is dependent on controlling a recently discovered pest (a weevil, *Larinus planus*) which feeds on the seeds of the Pitcher's Thistle. Research is ongoing to assess the ecological impacts of the weevil on Pitcher's thistle populations and will provide valuable information for the plant's management and recovery.

Additional Information: There were zero species delisted due to recovery in 2005. Achieving the FY2013 and FY2014 targets is primarily dependent on controlling a recently discovered pest (a weevil, *Larinus planus*) which feeds on the seeds of the Pitcher's Thistle. Results from this measure are achieved through GLRI funding as well as other non-GLRI federal and/or state funding. Measure is not in GLRI Action Plan II. Measure will not be reported after FY 2014.

(PM 638) Projected phosphorus reductions from GLRI-funded projects in targeted watersheds (measured in pounds).

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target							130,000	310,000	Pounds
Actual									

Additional Information: Cumulative measure of average annual projected reduction, starting in FY 2015.

(PM 639) Projected volume of untreated urban runoff captured or treated by GLRI-funded projects. (Cumulative)

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target							30	70	Gallons (millions)
Actual									

Additional Information: Cumulative measure of average annual projected reduction, starting in FY 2015.

Strategic Measure: By 2018, implement and evaluate actions necessary to protect, restore, or enhance 20 percent of U.S. Great Lakes coastal wetlands greater than 10 acres. (2012 baseline: 0.)

(PM 606) Cubic yards of contaminated sediment remediated (cumulative from 1997) in the Great Lakes.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	5.9	6.3	8	9.1	10.3	12			Cubic Yards (Million)
Actual	6.0	7.3	8.4	9.7	11.5	13.3			

Additional Information: 9.7 million cubic yards of contaminated sediments were remediated from 1997 through 2011 of the 46.5 million requiring remediation. Results from this measure are achieved through GLRI funding as well as other non-GLRI federal and/or state funding. Measure is not in GLRI Action Plan II. Measure will not be reported after FY 2014.

(PM 623) Cost per cubic yard of contaminated sediments remediated (cumulative).

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	200	200	200	200	200	200			Dollars/Cubi

Actual	122	125	144	131	142	142			c Yard
<i>Additional Information:</i> In 2006, the cost per cubic yard of contaminated sediments remediated was \$115. Measure is not in GLRI Action Plan II. Measure will not be reported after FY 2014.									
(PM 640) Number of miles of Great Lakes tributaries reopened by GLRI-funded projects. (Cumulative)									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target							2,200	2,500	Miles
Actual									
<i>Additional Information:</i> Baseline: 1,900; Universe: N/A									
(PM 641) Number of miles of Great Lakes shoreline and riparian corridors protected, restored, and enhanced by GLRI-funded projects. (Cumulative)									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target							75	100	Miles
Actual									
<i>Additional Information:</i> Baseline: 0; Universe: N/A									
(PM 642) Number of acres of Great Lakes coastal wetlands protected, restored, and enhanced by GLRI-funded projects. (Cumulative)									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target							7,000	15,000	Acres
Actual									
<i>Additional Information:</i> Baseline: 0; Universe is 260,000 acres.									
(PM 643) Number of acres of other habitats in the Great Lakes basin protected, restored, and enhanced by GLRI-funded projects. (Cumulative)									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target							127,000	147,000	Acres
Actual									
<i>Additional Information:</i> Baseline is 117,000 acres. Universe is 1,290,000 acres.									

(5)
Chesapeake
Bay

Strategic Measure: By 2018, achieve 45 percent attainment of water quality standards for dissolved oxygen, water clarity/underwater grasses, and chlorophyll a in Chesapeake Bay and tidal tributaries. (2011 Baseline: 40 percent.)									
(PM 234) Reduce per capita nitrogen loads (pounds per person per year) to levels necessary to achieve Chesapeake Bay Total Maximum Daily Load allocations.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target					15.17	15	14.5	14	Pounds/Person/Year
Actual					14.92	14.7			
<i>Additional Information:</i> FY 1986 baseline is 27 pounds of nitrogen/person/year. Universe is 11 pounds of nitrogen/person/year by December 31, 2025 (FY 2026). This measure replaced PM 233 starting in FY 2013.									
(PM cb6) Percent of goal achieved for implementing nitrogen reduction actions to achieve the final TMDL allocations, as measured through the phase 5.3 watershed model.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			1	15	22.5	30	37.5	45	Percent Goal Achieved
Actual			8	21	25	27			
<i>Explanation of Results:</i> Nitrogen from wastewater facilities and air deposition is being reduced as expected, but progress is slower in achieving reductions from the agricultural and urban/suburban sectors.									
<i>Additional Information:</i> The FY 2010 baseline is 0 percent. The universe is 100 percent goal achievement by December 31, 2025 (FY 2026).									
(PM cb7) Percent of goal achieved for implementing phosphorus reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			1	15	22.5	30	37.5	45	Percent Goal Achieved
Actual			1	19	27	43			
<i>Additional Information:</i> The FY 2010 baseline is 0 percent. The universe is 100 percent goal achievement by December 31, 2025 (FY 2026).									
(PM cb8) Percent of goal achieved for implementing sediment reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			1	15	22.5	30	37.5	45	Percent Goal Achieved
Actual			11	30	32	37			

	<i>Additional Information:</i> The FY 2010 baseline is 0 percent. The universe is 100 percent goal achievement by December 31, 2025 (FY 2026).									
	Strategic Measure: By 2018, support best management practices and projects to reduce releases of nutrients throughout the Mississippi River Basin to aid in the reduction of the size of the hypoxic zone in the Gulf of Mexico to less than 5,000 km ² , as measured by the 5-year running average of the size of the zone. (Baseline: 2005-2009 running average size is 15,670 km ² .)									
	(PM 22b) Improve the overall health of coastal waters of the Gulf of Mexico on the Good/Fair/Poor scale of the National Coastal Condition Report.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	2.5	2.5	2.5	2.4	2.4	2.4			Scale
	Actual	2.2	2.4	2.4	2.4	2.4	2.4			
	<i>Additional Information:</i> In 2008, the Gulf of Mexico rating of Fair/Poor was 2.2, where the rating is based on a 5-point system in which 1 is Poor and 5 is Good and is expressed as an aerially weighted mean of regional scores using the National Coastal Condition Report II indicators: water quality index, sediment quality index, benthic index, coastal habitat index, and fish tissue contaminants.									
	(PM xg1) Restore water and habitat quality to meet water quality standards in impaired segments in 13 priority coastal areas (cumulative starting in FY 2007).									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	96	96	202	320	360	360	360		Impaired Segments
	Actual	131	170	286	316	339	346			
	<i>Explanation of Results:</i> This measure counts restored segments that are reported by the five Gulf states. States often struggle with balancing limited budgetary resources while working to provide the best management approach to protect/restore the water quality of streams that flow through their jurisdiction. Due to these significant challenges, we proposed an improved water quality performance measure which becomes effective in FY 2016.									
	<i>Additional Information:</i> In 2008, the Gulf of Mexico coastal wetlands habitats included 3,769,370 acres.									
	(PM xg2) Restore, enhance, or protect a cumulative number of acres of important coastal and marine habitats.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	26,000	27,500	30,000	30,600	30,600	30,600	30,800	30,800	Acres
	Actual	29,344	29,552	30,052	30,248	30,306	30,319			
	<i>Explanation of Results:</i> This measure counts acres restored through the Gulf of Mexico Program's competitively funded projects and/or through numerous partnerships that leverage funds. During the FY 2014 Request for Proposals process, 3 proposals were selected for project funding to restore, enhance or protect vital coastal habitat. These projects and partnerships restored 14 acres. The target was not achieved due to the \$300,000 proposal ceiling dollar amount, the lack of quality applicants and the cost of habitat restoration projects. The GMPO has also proposed a revised Habitat PM for FY 2016.									
	<i>Additional Information:</i> In 2008, 25,215 acres were restored, enhanced, or protected in the Gulf of Mexico.									

(PM xg3) Improve and/or restore water and habitat quality to meet water quality standards in watersheds throughout the five Gulf States and the Mississippi River Basin.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target								2	Watersheds (12 digit HUC)
Actual									
<i>Additional Information:</i> New measure replacing PM xg1. The measure will track improved and/or restored watershed annually. A 12 digit HUC watershed will be counted as having an improvement when there is a five percent or more positive change in at least one water quality parameter. Water quality parameter(s) appropriate to the 12 digit HUC watershed include dissolved oxygen, temperature, pH, turbidity, total suspended solids, salinity, chlorophyll, freshwater inflow, oil/grease, floatables, nutrients, and invasive species.									
Strategic Measure: By 2018, reduce the maximum area of hypoxia in Long Island Sound by 15 percent from the pre-TMDL average of 208 square miles as measured by the 5-year running average size of the zone. (Baseline: Pre-total maximum daily load (TMDL) average conditions based on 1987-1999 data is 208 square miles. Post-TMDL includes years 2000-2017. Universe: The total surface area of Long Island Sound is approximately 1,268 square miles; the potential for the maximum area of hypoxia would be 1,268 square miles.)									
(PM li5) Percent of goal achieved in reducing trade-equalized (TE) point source nitrogen discharges to Long Island Sound from the 1999 baseline of 59,146 TE lbs/day.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target		52	72	74	76	85	91.5	95	TE Pounds/Day
Actual		70	69	83	88	Data Avail 03/2015			
<i>Explanation of Results:</i> Data not available until mid-March due to normal lag time in reporting discharge data from sewage treatment plants on a full calendar year basis, January-December. December data are processed by the STPs to the states in January; the states QA the data and reconcile with the STPs in February; data is finalized and reported by the states to EPA in March.									
<i>Additional Information:</i> The 2000 TMDL baseline is 59,146 Trade-Equalized (TE) pounds/day. The 2014 TMDL target is 22,774 TE pounds/day. The Long Island Sound Nitrogen Total Maximum Daily Load is an enforceable document with a 15-year timetable. There are no annual targets in the TMDL. The 'annual targets' in the strategic plan are for presentation purposes only and are estimates based on the 15 year total nitrogen reduction target. New York City and Westchester County STPs are under Consent Orders that extended their TMDL compliance deadline to 2017. EPA will continue to monitor these post-2014 for compliance, as well as Connecticut STPs for anti-backsliding compliance with their final 2014 TMDL limits, or as renegotiated with EPA.									
(PM li8) Restore, protect or enhance acres of coastal habitat from the 2010 baseline of 2,975 acres.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit

	Target				218	420	410	135	43	Acres	
	Actual				537	336	410				
<p><i>Additional Information:</i> EPA revised this measure in FY 2012 to measure acres instead of percent of goal achieved. EPA establishes annual targets with partners to measure annual progress. Out-year estimates are based on continued state progress, feasibility, and funding for habitat restoration projects.</p>											
<p>(PM li9) Reopen miles of river and stream corridors to diadromous fish passage from the 2010 baseline of 17.7 river miles by removal of dams and barriers or by installation of bypass structures.</p>											
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
	Target				28	75	1.5	30	88	Miles	
	Actual				72.3	56	21.6				
<p><i>Explanation of Results:</i> The target was exceeded. Prior year projects that were delayed by hurricane Sandy have now been completed.</p>											
<p><i>Additional Information:</i> EPA revised this measure in FY 2012 to report river miles instead of percent of goal achieved. The EPA will establish annual targets with partners to measure annual progress. Out-year estimates are based on continued state progress, feasibility, and funding for fish passage and bypass projects.</p>											
(8) Puget Sound Basin	<p>Strategic Measure: By 2018, improve water quality and enable the lifting of harvest restrictions in 6,000 acres of shellfish bed growing areas impacted by degraded or declining water quality in the Puget Sound. (2013 baseline: 3,203 acres of shellfish beds with harvest restrictions in 2006 had their restrictions lifted. Universe: 30,000 acres of commercial shellfish beds with harvest restrictions in 2006.)</p>										
	<p>(PM ps1) Improve water quality and enable the lifting of harvest restrictions in acres of shellfish bed growing areas impacted by degrading or declining water quality.</p>										
			FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
		Target	600	1,800	4,953	3,878	7,758	4,000	4,700	5,340	Acres
	Actual	1,730	4,453	1,525	2,489	3,203	3,249				

Explanation of Results: The Samish Bay growing area, which consists of approximately 4,000 acres, is critical to achieving the program’s goal of lifting harvest restrictions on 10,000 acres of potential growing areas by 2020. The goal of upgrading of the Samish Bay growing area was not achieved in 2014 despite positive trends of declining fecal coliform concentrations in water quality monitoring data from the Samish Bay growing area. Heavy rainfall storm events in the very beginning of the monitoring season eliminated the hope of achieving the upgrade of these 4,000 acres. The Samish growing area experiences harvest restrictions for approximately 45 days of the year during and immediately following big storm and rain events. The EPA Puget Sound program, in partnership with the Puget Sound Partnership Management Conference as well as state, local and tribal partners is taking steps to revitalize land-owner interest and participation in coming winter months to establish the mechanisms for controlling the remaining sources of pathogenic pollution that contribute to exceedances for fecal coliform in the Samish Bay growing area. In 2014, 79 acres of shellfish harvest areas were upgraded to the approved classification due to improved water quality conditions in Puget Sound growing areas. Also, 33 acres were downgraded and removed from approved status because of impacts from non-point source pollution. Weather events, especially if projections for increased severity of storms hold true, may frustrate efforts to re-approve significant large areas of shellfish harvesting again in 2015. The Puget Sound program will keep the pressure on to achieve upgrades of the Samish growing area along with other upgrades, while sustaining the water quality work necessary to protect the 140,000+ acres of approved shellfish growing areas from the impacts of non-point source pollution.

Additional Information: The Puget Sound has approximately 143,000 acres of approved shellfish harvest beds that require federal, state, local and tribal partners working together to ensure that adjacent water quality and safe harvesting conditions are preserved. Additionally, there are approximately 10,000 acres of potentially recoverable shellfish beds in Puget Sound closed due to nonpoint source pollution. The performance measure reports the net gains (losses) of recovered harvest areas minus any loss of currently approved acres. The Puget Sound Program works to both protect the existing approved shellfish harvest beds, and to improve water conditions so that recoverable harvest areas can be approved for harvest. In 2010, 4,453 acres (cumulative) of shellfish-bed growing areas had improved water quality, resulting in the lifting of harvest restrictions. In 2011, a downgrading of approximately 4,000 acres in Samish Bay occurred due to non-point pollution exacerbated by La Niña weather conditions. Protecting water quality in existing approved areas is critical to the achievement of the performance measure for lifting harvest restrictions. The Puget Sound Program strategically directs resources to address the pathogen pollution problems impacting shellfish harvest in Puget Sound both in the near term - focusing on specific geographical locations (e.g. Samish Bay), and in the long term for the universe of existing approved harvest areas and for the potentially recoverable shellfish acres basin-wide in Puget Sound.

(PM ps3) Protect or restore acres or shoreline miles of aquatic habitat including estuaries, floodplains, marine and freshwater shorelines, riparian areas, stream habitats, and associated wetlands.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	3,000	6,500	12,363	19,063	31,818	33,818	43,006	45,500	Acres
Actual	5,751	10,062	14,629	23,818	30,128	41,006			

Additional Information: In 2008, 4,413 acres (cumulative) of tidally- and seasonally-influenced estuarine wetlands were restored. The protection and restoration of habitat is one of the three priority areas for the Puget Sound NEP. The target for this measure has been exceeded every year from FY 2008 - FY 2012 resulting in the protection and/or restoration of 23,818 acres during that period. This is critical to meet salmon recovery goals of viable, harvestable populations of this tribal treaty protected resource. Moving forward, the focus will be on critical floodplain, nearshore, and riparian habitat.

(9) U.S.- Mexico Border Environmental Health	Strategic Measure: By 2018, provide access to safe drinking water and adequate wastewater sanitation to 75 percent and 90 percent, respectively, of the homes in the U.S.-Mexico Border area that lacked access to either service in 2003. (2003 Universe: 98,515 homes lacked drinking water and 690,723 homes lacked adequate wastewater sanitation based on a 2003 assessment of homes in the U.S.-Mexico Border area. 2018 target: 73,886 homes provided with access to safe drinking water and 621,651 homes with adequate wastewater sanitation.)									
	(PM 4pg) Loading of biochemical oxygen demand (BOD) removed (million pounds/year) from the U.S.-Mexico border area since 2003.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target			108.2	115	121.5	137.3	141.1	170.3	Million Pounds/Year
	Actual			108.5	119	128.3	131			
	<i>Explanation of Results:</i> Due to a major change in design of a collector pipe which will deliver wastewater to a new Juarez, Mexico South-South wastewater treatment plant, the construction of the project will be delayed. The construction was anticipated to be completed during the 4th quarter of FY14. Now, construction is estimated to be completed during the 2nd quarter FY15. This project will benefit a population of approximately 150,000.									
	<i>Additional Information:</i> The baseline starts in 2003 with zero pounds of biochemical oxygen demand (BOD) removed.									
	(PM xb2) Number of additional homes provided safe drinking water in the U.S.-Mexico border area that lacked access to safe drinking water in 2003.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	1,500 (Annual)	28,434 (Cumulative)	54,130 (Cumulative)	1,000 (Annual)	3,000 (Annual)	1,700 (Annual)	600 (Annual)	500 (Annual)	Homes
Actual	1,584 (Annual)	52,130 (Cumulative)	54,734 (Cumulative)	5,185 (Annual)	3,400 (Annual)	1,468 (Annual)				
<i>Explanation of Results:</i> A project was initially projected to be completed by 1st quarter FY14. However, the project was completed ahead of schedule during the 4th quarter of FY13. Drinking water connections for this project were counted within the FY13 reporting period. This project is benefiting a population of approximately 8,388.										
<i>Additional Information:</i> Units and Baseline: "Additional homes" represents the number of existing households that are provided access (i.e., connected) to safe drinking water as a result of Border Environment Infrastructure Fund (BEIF)-supported projects. The program measures from a baseline of zero additional homes since this measure was developed in 2003. Universe: The known universe is the number of existing households in the U.S.-Mexico border area lacking access to safe drinking water in 2003 (98,515 homes). The known universe was calculated from U.S. Census and the Mexican National Water Commission (CONAGUA) sources. This measure was modified from cumulative to annual beginning in FY 2012 to better capture annual program progress.										

(PM xb3) Number of additional homes provided adequate wastewater sanitation in the U.S.-Mexico border area that lacked access to wastewater sanitation in 2003.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	105,500 (Annual)	246,175 (Cumulative)	461,125 (Cumulative)	10,500 (Annual)	27,000 (Annual)	39,500 (Annual)	40,750 (Annual)	53,000 (Annual)	Homes
Actual	43,594 (Annual)	254,125 (Cumulative)	513,041 (Cumulative)	31,092 (Annual)	25,695 (Annual)	12,756 (Annual)			

Explanation of Results: Due to a major change in design of a collector pipe which will deliver wastewater to a new Juarez, Mexico South-South wastewater treatment plant, the construction of the project will be delayed. The construction was anticipated to be completed during the 4th quarter of FY14. Now, construction is estimated to be completed during the 2nd quarter FY15. This project will benefit a population of approximately 150,000.

Additional Information: Units and Baseline: "Additional homes" represents the number of existing households that are provided access (i.e., connected) to adequate wastewater sanitation as a result of Border Environment Infrastructure Fund (BEIF)-supported projects. The program measures from a baseline of zero additional homes since this measure was developed in 2003. Universe: The known universe is the number of existing households in the U.S.-Mexico border area lacking access to adequate wastewater sanitation services in 2003 (690,723). The known universe of unconnected homes was calculated from U.S. Census and the Mexican National Water Commission (CONAGUA) sources. This measure was modified from cumulative to annual beginning in FY 2012 to better capture annual program progress.

GOAL 3: CLEANING UP COMMUNITIES AND ADVANCING SUSTAINABLE DEVELOPMENT

Clean up communities, advance sustainable development, and protect disproportionately impacted low-income and minority communities. Prevent releases of harmful substances and clean up and restore contaminated areas

Objective 1 - Promote Sustainable and Livable Communities.: Support sustainable, resilient, and livable communities by working with local, state, tribal, and federal partners to promote smart growth, emergency preparedness and recovery planning, brownfield redevelopment, and the equitable distribution of environmental benefits.

Program Area	Performance Measures and Data									
(2) Assess and Clean Up Brownfields	Strategic Measure: By 2018, conduct environmental assessments at 26,350 (cumulative) brownfield properties. (Baseline: As of the end of FY 2012, EPA assessed 19,154 properties.)									
	(PM B29) Brownfield properties assessed.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	1,000	1,000	1,000	1,200	1,200	1,200	1,300	1,300	Properties
	Actual	1,295	1,326	1,784	1,444	1,528	1,659			
	<i>Explanation of Results:</i> Improved reporting by grantees and recent data cleanup efforts contributed to exceeding the FY 2014 target. Grants are generally community-wide, rather than site-specific, and mature over a three-year period, resulting in variation of properties assessed each year.									
	<i>Additional Information:</i> The FY 2015 target for this measure has been revised from 1,200 to 1,300 based on past performance, improved reporting by grantees, and recent data cleanup efforts.									
	Strategic Measure: By 2018, make an additional 16,800 acres of brownfield properties ready for reuse from the 2012 baseline. (Baseline: As of the end of FY 2012, EPA made 25,408 acres ready for reuse.)									
	(PM B32) Number of properties cleaned up using Brownfields funding.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	60	60	60	120	120	120	120	120	Properties	
Actual	93	109	130	120	122	132				
<i>Additional Information:</i> The FY 2015 target for this measure has been revised from 115 to 120 properties cleaned up based on current estimates of cleanups nearing completion during FY 2015. Results are expected to fluctuate every other year as new Revolving Loan Fund grants are awarded on a two year cycle, beginning in FY 2014.										

(PM B33) Acres of Brownfields properties made ready for reuse.										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	1,000	1,000	1,000	3,000	3,000	3,000	4,000	4,000	Acres	
Actual	2,660	3,627	6,667	3,314	4,644	6,389				
<i>Explanation of Results:</i> Several large Brownfields properties met the criteria for ready for reuse, include agricultural land and airports. Ten properties comprised more than 50% of the total.										
<i>Additional Information:</i> The FY 2015 target for this performance measure has been increased from 2,800 to 4,000 to better reflect recent performance trends.										
(PM B34) Jobs leveraged from Brownfields activities.										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	Jobs	
Actual	6,490	5,177	6,447	5,593	10,141	12,376				
<i>Explanation of Results:</i> Jobs leveraged is difficult to predict and vary from year-to-year as they are dependent on the final use of the Brownfields site. Several sites have large redevelopment projects including casinos and shopping malls that provided job opportunities. For example, properties within four Regions represent 9,508 jobs leveraged this year.										
<i>Additional Information:</i> The program has revised its FY 2015 target from 4,750 to 5,000 jobs to better reflect past performance.										
(PM B37) Billions of dollars of cleanup and redevelopment funds leveraged at Brownfields sites.										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	0.9	0.9	0.9	1.2	1.2	1.2	1.1	1.1	Dollars (Billions)	
Actual	1.06	1.40	2.14	1.2	1.54	1.29				
(3) Reduce Chemical Risks at Facilities and in Communities	Strategic Measure: By 2018, conduct 2,300 inspections at risk management plan (RMP) facilities. (Baseline: Between FY 2000 and FY 2012, more than 7,400 RMP inspections were completed.)									
	(PM CH2) Number of risk management plan inspections conducted.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	400	400	560	530	500	460	460	460	Inspections
Actual	654	618	630	652	539	466				
<i>Additional Information:</i> Between FY 2000 and FY 2014, more than 8,300 Risk Management Plan (RMP) inspections were completed. Of the 460 RMP facility inspections targeted for FY 2016, 36 percent will be conducted at high-risk facilities.										

Objective 2 - Preserve Land: Conserve resources and prevent land contamination by reducing waste generation and toxicity, promoting proper management of waste and petroleum products, and increasing sustainable materials management.

Program Area	Performance Measures and Data									
(1) Waste Generation and Recycling	Strategic Measure: By 2018, increase by 500,000 tons the amount of virgin materials that were offset by the reuse or recycling of waste products through the use of sustainable materials management. (Baseline: In FY 2013, an estimated 8,500,000 tons of waste products will be reused or recycled through sustainable materials management practices.)									
	(PM SM1) Tons of materials and products offsetting use of virgin resources through sustainable materials management.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target				8,549,502	8,501,537	8,603,033	9,346,830	9,450,000	Tons
	Actual				9,002,588	Data Avail 2/2015	Data Avail 2/2016			
	<i>Explanation of Results:</i> FY 2014 results will be available in FY 2016, Quarter 2.									
	<i>Additional Information:</i> The FY 2012 result, surprisingly surpassed not only the FY 2012 target, but the FY 2013 and FY 2014, as well. Thus, the EPA has increased its FY 2015 target from 8,603,033 to 9,346,830 tons. This change is necessary due to the results realized through the new sustainable materials management program and improvements in recovery during FY 2011 and reported in FY 2012.									
	Strategic Measure: By 2018, increase by 50 the number of tribes covered by an integrated waste management plan compared to FY 2013. (Baseline: As of March 2013, 160 of 574 federally recognized tribes were covered by an integrated waste management plan.)									
	(PM MW5) Number of closed, cleaned up, or upgraded open dumps in Indian country or on other tribal lands.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	27	22	45	45	45	45			Dumps	
Actual	129	141	82	74	106	63				
<i>Explanation of Results:</i> Two states were able to address several more open dumps than originally anticipated which contributed to exceeding the FY 2014 target.										
<i>Additional Information:</i> This annual performance measure is being discontinued beginning in FY 2015. The EPA is currently developing a new performance measure that is more closely tied to EPA activities.										
(PM MW8) Number of tribes covered by an integrated solid waste management plan.										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	

Program Area	Performance Measures and Data										
	Target	16	23	14	3	3	10	10	10	Tribes	
	Actual	31	23	17	13	26	20				
<p>Explanation of Results: Several Regions were able to address more integrated solid waste management plans than originally anticipated contributing to exceeding the FY 2014 target.</p>											
<p>Additional Information: Beginning in FY 2012, RCRA program grant funding supporting the development of integrated waste management plans was no longer available. However, the performance target is achieved with the assistance of other funding sources, including tribes, other EPA programs, or other federal agencies. Technical assistance to the tribes, such as that provided through tribal circuit riders, also remains available. By concentrating these resources on assisting tribes with developing waste management plans, the EPA has revised its FY 2014 target for this measure from 3 to 10 tribes. As of September 2014, 193 of 574 federally-recognized tribes were covered by an integrated waste management plan.</p>											
(2) Minimize Releases of Hazardous Waste and Petroleum Products	<p>Strategic Measure: By 2018, prevent releases at 500 additional hazardous waste management facilities by issuing initial approved controls or updated controls resulting in the protection of an estimated 20 million people living within a mile of all facilities with controls. (Baseline: At the end of FY 2013, an estimated 1,220 facilities will require these controls out of the universe of 6,600 facilities, with over 20,000 process units.)</p>										
	<p>(PM HW0) Number of hazardous waste facilities with new or updated controls.</p>										
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
	Target	100	100	100	100	100	100	110	115	Facilities	
	Actual	115	140	130	117	114	129				
	<p>Explanation of Results: Two Regions were able to make more progress than originally anticipated. No expectations that this will be the case in upcoming years.</p>										
	<p>Additional Information: In FY 2014, 129 facilities received new or updated controls.</p>										
	<p>Strategic Measure: By 2018, prevent exposures at polychlorinated biphenyl (PCB) sites by issuing 750 approvals for PCB cleanup, storage, and disposal activities</p>										
	<p>(PM PCB) Number of approvals issued for polychlorinated biphenyl (PCB) cleanup, storage and disposal activities.</p>										
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target						150	200	200	Approvals		
Actual						254					
<p>Explanation of Results: Since the measure was new in FY 2014 without an established baseline, it was difficult for Regions to predict how many approvals they will receive in a given year.</p>											
<p>Additional Information: This measure tracks all approvals issued by EPA under Section 761 of the Toxic Substances Control Act (TSCA) for PCBs. The EPA issued 927 approvals between FY 2009 and FY 2014. The FY 2015 target has been increased from 150 to 200 approvals, based on greater than expected performance results achieved during the first year of implementing this measure.</p>											

Program Area	Performance Measures and Data									
	<p>Strategic Measure: Each year through 2018, increase the percentage of underground storage tank (UST) facilities that are in significant operational compliance (SOC) with both release detection and release prevention requirements by 0.5 percent over the previous year's target. (Baseline: This means an increase of facilities in SOC from an estimated 70 percent in 2014 to 72 percent in 2018.)</p>									
	<p>(PM ST6) Increase the percentage of UST facilities that are in significant operational compliance (SOC) with both release detection and release prevention requirements by 0.5% over the previous year's target.</p>									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	65	65.5	66	66.5	67	70	70.5	71	Percent
	Actual	66	69	71	71.3	71.6	72.5			
	<p><i>Additional Information:</i> There were 104,451 on-site inspections of underground storage tanks (UST) between October 2012 and September 2014 and 72.5 percent of those were found to be in significant operational compliance with both release detection and release prevention requirements.</p>									
	<p>Strategic Measure: Each year through 2018, reduce the number of confirmed releases at UST facilities to 5 percent fewer than the prior year's target. (Baseline: Between FY 2008 and FY 2012, confirmed UST releases averaged 6,500.)</p>									
	<p>(PM ST1) Reduce the number of confirmed releases at UST facilities to five percent (5%) fewer than the prior year's target.</p>									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	<9,000	<9,000	<8,550	<8,120	<7,715	<7,330	<6,965	<6,615	Releases
	Actual	7,168	6,328	5,998	5,674	6,128	6,847			

Objective 3 - Restore Land: Prepare for and respond to accidental or intentional releases of contaminants and clean up and restore polluted sites for reuse.

Program Area	Performance Measures and Data								
(1) Emergency Preparedness and Response	<p>Strategic Measure: By 2018, achieve and maintain at least 85 percent of the maximum score on the Core National Approach to Response (NAR) evaluation criteria. (Baseline: In FY 2012, the average Core NAR Score was 76 percent for EPA headquarters, regions, and special teams prepared for responding to emergencies.)</p>								
	<p>(PM C1) Score on annual Core NAR.</p>								

Program Area	Performance Measures and Data									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	No Target Established	55	60	70	72	75	80	82	Percent
	Actual	84.3	87.9	77.5	75.8	82.2	Data Avail 2/2015			
<p>Explanation of Results: Starting in FY 2014, the score on the core NAR will be reported during Quarter 2 of the following fiscal year, so the evaluation can better capture the response readiness for the entire year.</p> <p>Additional Information: Since FY 2011, the Core NAR score reported for this measure has been based upon the combination of two scores, one which measures day-to-day response readiness and another that measures national preparedness for chemical, biological, radiological and nuclear incidents. Beginning in FY 2014, the Core NAR evaluation will take place after the end of the fiscal year in order to capture a more complete picture of response readiness. Results will be reported in March the following year.</p>										
<p>Strategic Measure: By 2018, complete an additional 1,395 Superfund removals. (Baseline: In FY 2013, there were 295 Superfund removal actions completed.)</p>										
<p>(PM 132) Superfund-lead removal actions completed annually.</p>										
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	195	170	170	170	170	170			Removals
	Actual	214	199	214	232	179	165			
<p>Explanation of Results: Setting meaningful performance targets for the Emergency Response and Removal program has always been a challenge, since the EPA cannot predict the number of responses we might encounter each year (not a set universe). Furthermore, the rate of removal starts and completions has been decreasing in recent years and responsible parties are increasingly accepting a leading role in cleanup efforts.</p> <p>Additional Information: This measure will be discontinued at the end of FY 2014. However, EPA will report removal results in its Annual Performance Report. In FY 2015, EPA will implement a new measure, "Number of Superfund removals completed", which combines the Superfund-lead and PRP-lead removal actions, to track the total number of removals completed each year.</p>										
<p>(PM 135) PRP removal completions (including voluntary, Administrative Order on Consent, and Unilateral Administrative Order actions) overseen by EPA.</p>										
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	130	170	170	170	170	125			Removals
	Actual	154	192	191	196	125	139			
<p>Additional Information: This measure will be discontinued at the end of FY 2014. However, EPA will report removal results in its Annual Performance Report. In FY 2015, EPA will implement a new measure, "Number of Superfund removals completed", which combines the Superfund-lead and PRP-lead removal actions, to track the total number of removals completed each year.</p>										

Program Area	Performance Measures and Data								
(PM 137) Number of Superfund removals completed.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target							275	275	Removals
Actual									
<p><i>Additional Information:</i> New measure beginning in FY 2015 combines existing Superfund-lead (PM 132) and PRP removals with EPA oversight (PM 135) measures. The EPA will continue to internally report results for both Superfund-lead and PRP-lead removals with agency oversight. Between FY 2009 and FY 2014, the EPA completed an average of 367 removal actions per year.</p>									
<p>Strategic Measure: By 2018, bring into compliance 60 percent of FRP inspected facilities found to be non-compliant. (Baseline: In FY 2010, 268 FRP facilities were inspected and 121 were found to be non-compliant, an initial compliance rate of 55 percent.)</p>									
(PM 337) Percent of all FRP inspected facilities found to be non-compliant which are brought into compliance.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target		15	30	35	40	50	60	60	Percent
Actual		48	48	73	78	79			
<p><i>Explanation of Results:</i> Development of improved guidance and procedures helped the Regions bring more facilities into compliance.</p> <p><i>Additional Information:</i> The EPA established this measure in FY 2010 to track FRP facilities brought into compliance because if an oil spill occurs at these facilities there is a greater potential to cause harm to human health and the environment than at other oil facilities.</p>									
<p>Strategic Measure: By 2018, bring into compliance 60 percent of SPCC inspected facilities found to be non-compliant. (Baseline: In FY 2010, 781 SPCC facilities were inspected and 456 were found to be non-compliant, an initial compliance rate of 42 percent.)</p>									
(PM 338) Percent of all Spill Prevention, Control and Countermeasure (SPCC) inspected facilities found to be non-compliant which are brought into compliance.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target		15	30	35	40	50	60	60	Percent
Actual		36	45	63	69	72			
<p><i>Explanation of Results:</i> Development of improved guidance and procedures helped the Regions bring more facilities into compliance. Also, a decreased number of new SPCC inspections helped to focus resources on bringing non-compliant facilities into compliance.</p> <p><i>Additional Information:</i> The EPA established this measure in FY 2010 to track SPCC facilities brought into compliance because if an oil spill occurs at certain high-risk SPCC facilities there is a greater potential to cause harm to human health and the environment than at other oil facilities.</p>									

Program Area	Performance Measures and Data									
(2) Clean Up Contaminated Land	Strategic Measure: By 2018, complete 95,500 assessments at potential hazardous waste sites to determine if they warrant Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial response or other cleanup activities. (Baseline: As of 2012, the cumulative total number of assessments completed was 91,300.)									
	(PM 115) Number of Superfund remedial site assessments completed.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target			900	900	650	700	850	750	Assessments
	Actual			1,020	1,151	772	794			
	<i>Additional Information:</i> This measure accounts for all remedial assessments performed at sites addressed under the Superfund Remedial program. Through FY 2014, the EPA had completed a cumulative total of 93,076 Remedial Site Assessments. The FY 2014 and 2015 target increases reflect the EPA's focus on older sites in the Superfund inventory. The annual number of assessments completed will temporarily rise further in FY 2015 as one of EPA's larger Regions significantly reduces its backlog of sites needing assessment. Assessment levels are expected to drop in FY 2016 as this regional work is completed.									
	Strategic Measure: By 2018, increase to 92 percent the number of Superfund sites and RCRA facilities where human exposures to toxins from contaminated sites are under control. (Baseline: As of October 2013, an estimated 83 percent of Superfund sites and 85 percent of RCRA facilities had human exposures under control out of a combined universe of 5,451.)									
	(PM 151) Number of Superfund sites with human exposures under control.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	10	10	10	10	10	10	9	9	Sites
	Actual	11	18	10	13	14	9			
	<i>Explanation of Results:</i> The target was missed due to the discovery of new exposure pathways for contaminants during cleanup, such as vapor intrusion, the implementation of more stringent cleanup standards, and the fact that many of the remaining not under control sites are large, complex, technically challenging, and will take many years to bring under control.									
	<i>Additional Information:</i> Beginning in FY 2014, performance results will include non-NPL Superfund Alternative Approach (SAA) sites. Through FY 2014, the EPA controlled human exposures at 1,429 final and deleted NPL sites. For FY 2015, the EPA reduced its target from 10 to 9 due to the factors mentioned above.									
(PM CA1) Cumulative percentage of RCRA facilities with human exposures to toxins under control.										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	No Target Established	69	72	81	85	87	90	92	Percent	
Actual	65	72	77	81	85	87				

Program Area	Performance Measures and Data								
<p>Additional Information: Through FY 2014, the EPA achieved human exposures under control at 87.3 percent of RCRA corrective action facilities. There are a total of 3,779 corrective action facilities in the 2020 corrective action universe.</p>									
<p>Strategic Measure: By 2018, increase to 86 percent the number of Resource Conservation and Recovery Act (RCRA) facilities with migration of contaminated groundwater under control. (Baseline: At the end of FY 2013, the migration of contaminated groundwater was controlled at 76 percent of all 3,779 facilities needing corrective action.)</p>									
<p>(PM CA2) Cumulative percentage of RCRA facilities with migration of contaminated groundwater under control.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	No Target Established	61	64	69	73	77	80	82	Percent
Actual	58	63	67	72	76	79			
<p>Additional Information: Progress for this measures has been stronger than anticipated during FY 2014 and in order to continue to push progress forward for this measure, the EPA increased the FY 2015 target from 79% to 80%.</p>									
<p>Strategic Measure: By 2018, increase to 73 percent the number of RCRA facilities with final remedies constructed. (Baseline: At the end of FY 2013, all cleanup remedies were constructed at an estimated 51 percent of all 3,779 facilities needing corrective action.)</p>									
<p>(PM CA5) Cumulative percentage of RCRA facilities with final remedies constructed.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	No Target Established	35	38	46	51	55	60	64	Percent
Actual	32	37	42	47	51	56			
<p>Additional Information: Through FY 2014, the EPA constructed final remedies at 56 percent of RCRA corrective action facilities. There are a total of 3,779 corrective action facilities in the 2020 corrective action universe.</p>									
<p>Strategic Measure: By 2018, increase to 25 percent the number of RCRA facilities with corrective action performance standards attained. (Baseline: At the end of FY 2013, performance standards were attained at an estimated 20 percent of all 3,779 RCRA facilities requiring corrective action.)</p>									
<p>(PM CA6) Cumulative percentage of RCRA facilities with corrective action performance standards attained.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target						21	24	25	Percent
Actual						24			

Program Area	Performance Measures and Data								
<p><i>Additional Information:</i> Progress has been stronger than anticipated for this new measure during FY 2014. In order to continue to push progress forward for this measure, the EPA has revised its FY 2015 target from 22% to 24%.</p>									
<p>Strategic Measure: Each year through 2018, reduce the backlog of LUST cleanups (confirmed releases that have yet to be cleaned up) that do not meet risk-based standards for human exposure and groundwater migration by 1 percent. This means a decrease from 16 percent in 2012 to 10 percent in 2018. (At the end of FY 2012, there were 82,903 releases not yet cleaned up.)</p>									
<p>(PM 111) Percent of confirmed releases pending cleanup completion at UST facilities.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	No Target Established	No Target Established	No Target Established	No Target Established	No Target Established	15	14	13	Percent
Actual	21	19	18	16	15	14			
<p><i>Additional Information:</i> This is a long-standing strategic measure included in EPA's FY 2014-2018 Strategic Plan. The EPA has been tracking results under this measure since FY 2006, however, in FY 2014 this was a new annual performance measure with annual targets. As of the end of FY 2014, there have been 521,271 releases reported, 447,323 (or 85.8 percent) of which have been cleaned up, leaving 73,948 remaining to be cleaned up.</p>									
<p>(PM 112) Number of LUST cleanups completed that meet risk-based standards for human exposure and groundwater migration.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	12,250	12,250	12,250	11,250	10,100	9,000	8,600	8,600	Cleanups
Actual	12,944	11,591	11,169	10,927	11,582	10,393			
<p><i>Additional Information:</i> Through FY 2014, the EPA completed a cumulative total of 447,323 leaking underground storage tank (LUST) cleanups. Results in FY 2010 through FY 2012 included over 2,400 cleanups achieved as a result of funding provided by ARRA. The FY 2014 and 2015 targets reflect a variety of challenges in cleaning up remaining sites, including the complexity of remaining sites, an increased state workload, a decrease in available state resources, the increasing costs of cleanups, and recalibration based on the expiration of ARRA funding.</p>									
<p>Strategic Measure: Each year through 2018, reduce the backlog of LUST cleanups (confirmed releases that have yet to be cleaned up) in Indian country that do not meet applicable risk-based standards for human exposure and groundwater migration by 1 percent. This means a decrease from 23 percent in 2012 to 17 percent in 2018.</p>									
<p>(PM 113) Number of LUST cleanups completed that meet risk-based standards for human exposure and groundwater migration in Indian country.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	30	30	38	42	42	37	30	26	Cleanups

Program Area	Performance Measures and Data								
Actual	49	62	42	47	18	26			
<p>Explanation of Results: While completing more cleanups than in FY 2013, when the target was also missed, the EPA was still short of meeting the FY 2014 target. Several factors contributed to missing the target. First, several Regions spent considerable time on a few large and complex cleanups, focusing on the riskiest sites. Second, there has been a reduction in FTE and extramural funds available for tribal cleanups in recent years, which reduced the number of sites moving through the cleanup process.</p> <p>Additional Information: Through FY 2014, the EPA completed a cumulative total of 1,077 leaking underground storage tank cleanups in Indian country, out of a universe of 1,375 confirmed releases. This is a subset of the national total of 447,323 leaking underground storage tanks cleanups completed.</p>									
<p>Strategic Measure: By 2018, ensure that 946 Superfund sites are "sitewide ready for anticipated use." (Baseline: As of October 2012, 606 Superfund sites had achieved "sitewide ready for anticipated use" out of a universe of 1,742 sites.)</p>									
(PM 141) Annual number of Superfund sites with remedy construction completed.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	20	22	22	22	19	15	13	13	Completions
Actual	20	18	22	22	14	8			
<p>Explanation of Results: Achieving construction completions continues to present a significant challenge to the Superfund program. Sites remaining on the NPL tend to be more complex and subject to emerging issues such as new identified contaminants as well more stringent contaminant standards. Site specific issues that led to a lower result in FY 2014 include: discovery of new contaminant sources; and technical and construction issues (e.g., delayed treatment units, additional groundwater well installation required). Furthermore, resource constraints have slowed some construction projects and prevented initiation of other projects impacting both the construction completion and site-wide RAU measure. The EPA has lowered the 2015 target for this measure from 15 to 13 sites.</p> <p>Additional Information: Beginning in FY 2014, performance measure results will include non-NPL Superfund Alternative Approach (SAA) sites. Through FY 2014, the EPA has completed construction at 1,164 final and deleted NPL sites.</p>									
(PM 152) Number of Superfund sites with contaminated groundwater migration under control.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	15	15	15	15	15	15	13	13	Sites
Actual	16	18	21	18	18	11			
<p>Explanation of Results: There are multiple factors contributing to missing this measure including: diminishing number of sites to draw accomplishments from; implementation of more stringent cleanup standards; and that many of the remaining sites are large, complex, and technically challenging, and will take many years to bring them under control. The EPA has lowered the original FY 2015 target for this measure from 15 to 13 sites.</p> <p>Additional Information: Beginning in FY 2014, performance measure results will include non-NPL Superfund Alternative Approach (SAA) sites. Through FY 2014, the EPA had controlled groundwater migration at 1,123 final and deleted NPL sites.</p>									
(PM 170) Number of remedial action projects completed at Superfund NPL sites.									

Program Area	Performance Measures and Data								
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			103	130	115	115	105	105	Completions
Actual			132	142	121	115			
<i>Additional Information:</i> Beginning in FY 2014, performance measure results will include non-NPL Superfund Alternative Approach (SAA) sites.									
(PM FF1) Percent of Superfund federal facility sites construction complete.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target						86	87	88	Percent
Actual						TBD			
<i>Explanation of Results:</i> Due to the conversion from the CERCLIS to SEMS database, data will not be available until a date to be determined by the end of the second quarter FY 2015. <i>Additional Information:</i> The Superfund Federal Facilities Response program has begun targeting a percent construction complete measure specifically for federal Superfund NPL sites designed to demonstrate national incremental construction progress. This new measure is based on the average of three specific factors: 1) Operable Unit (OU) percent complete; 2) Total cleanup actions percent complete; and 3) Duration of cleanup actions percent complete (national cumulative). The FY 2012 baseline was 82%.									
(PM S10) Number of Superfund sites ready for anticipated use site-wide.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	65	65	65	65	60	55	45	45	Sites
Actual	66	66	65	66	56	45			
<i>Explanation of Results:</i> There are multiple factors contributing to missing this target including: impacts from prior year budgets and FTE reductions; complexity of cleanups at remaining sites that have not yet achieved site-wide ready for anticipated use; implementation of more stringent cleanup standards; and constraints on state and local governments' abilities to implement institutional controls. The EPA has lowered the original FY 2015 target for this measure from 55 to 45 sites.									
<i>Additional Information:</i> Beginning in FY 2014, performance measure results will include non-NPL Superfund Alternative Approach (SAA) sites. Through FY 2014, the EPA ensured that 707 final and deleted NPL sites met the criteria to be determined site-wide ready for anticipated use (SWRAU).									

Objective 4 - Strengthen Human Health and Environmental Protection in Indian Country: Directly implement federal environmental programs in Indian country and support federal program delegation to tribes. Provide tribes with technical assistance and support capacity development for the establishment and implementation of sustainable environmental programs in Indian country.

Program Area	Performance Measures and Data
(1) Improve	Strategic Measure: By 2015, increase the percent of tribes implementing federal regulatory environmental programs in Indian

Program Area	Performance Measures and Data									
Human Health and the Environment in Indian Country	country to 25 percent. (FY 2009 baseline: 22 percent of 572 tribes.)									
	(PM 5PQ) Percent of Tribes implementing federal regulatory environmental programs in Indian country (cumulative).									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	7	14	18	22	24	25	25	25	Percent
	Actual	13	14	17	21	19	19			
	<p><i>Explanation of Results:</i> EPA underestimated the number of tribes who would seek regulatory TAS approval in FY14. Tribes are moving from the use of DICTAs (a portion of how the measure is calculated) to other cooperative agreements such as PPGs. EPA will discontinue this measure in FY 2015 and develop new performance measures to better capture the work in Indian Country in the FY 2017 budget.</p> <p><i>Additional Information:</i> There are 572 tribal entities that are eligible for GAP funding. The Strategic Measure refers to the total number of tribes and inter-tribal consortia that are eligible for GAP funding.</p>									

Strategic Measure: By 2015, increase the percent of tribes conducting EPA-approved environmental monitoring and assessment activities in Indian country to 58 percent. (FY 2012 baseline: 54 percent of 572 tribes)									
(PM 5PR) Percent of Tribes conducting EPA approved environmental monitoring and assessment activities in Indian country (cumulative.)									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	23	42	52	54	57	58	58	58	Percent
Actual	40	50	52	54	56.5	Data Avail 09/2015			
<i>Additional Information:</i> There are 572 tribal entities that are eligible for GAP funding. The Strategic Measure refers to the total number of tribes and inter-tribal consortia that are eligible for GAP funding.									

GOAL 4: ENSURING THE SAFETY OF CHEMICALS AND PREVENTING POLLUTION

Reduce the risk and increase the safety of chemicals and prevent pollution at the source

Objective 1 - Ensure Chemical Safety: Reduce the risk and increase the safety of chemicals that enter our products, our environment and our bodies.

Program Area	Performance Measures and Data									
(1) Protect Human Health from Chemical Risks	Strategic Measure: By 2018, reduce by 30 percent the number of moderate to severe exposure incidents associated with organophosphates and carbamate insecticides in the general population.(Baseline for moderate to severe exposure incidents reported during 2011 is 274, as reported in the American Association of Poison Control Centers' National Poisoning Data System (NPDS) for organophosphates and carbamate pesticides.)									
	(PM J11) Reduction in moderate to severe exposure incidents associated with organophosphates and carbamate insecticides in the general population.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target				10	15	25	30	30	Percent
	Actual				16	13	20			
	<i>Explanation of Results:</i> The program recognized an error made in the FY 2013 calculation of the EOY result and requested the correction. The program does believe it has helped reduce op/carbamate incidents by eliminating residential usage of chlorpyrifos and diazinon and that is reflected in the trend reported beginning FY 2012.									
	<i>Additional Information:</i> Baseline for moderate to severe exposure incidents reported during 2008 is 316, as reported in the American Association of Poison Control Centers' National Poisoning Data System (NPDS) for organophosphates and carbamate pesticides. In FY 2011, 274 moderate to severe exposure incidents were reported for organophosphates and carbamate pesticides.									
	Strategic Measure: Through 2018, work to ensure that the percentage of children with blood lead levels above 5 µg/dl does not rise above the 1.0 percent target for FY 2014 and work to make further reductions in blood lead levels. (Baseline is 2.6 percent of children ages 1-5 had elevated blood lead levels (5 ug/dl or greater) in the 2007-2010 sampling period according to the Centers for Disease Control and Prevention's (CDC's) National Health and Nutritional Evaluation Survey (NHANES).)									
	(PM 008) Percent of children (aged 1-5 years) with blood lead levels (>5 ug/dl).									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target		3.5	No Target Established	1.5	No Target Established	1.0	No Target Established	1.0	Percent	
Actual		2.6	Biennial	2.1	Biennial	Data Avail 10/2016				

Program Area	Performance Measures and Data
	<p><i>Additional Information:</i> Data released by CDC from the National Health and Nutritional Evaluation Survey (NHANES) for the 2007-2010 sampling period estimated that 2.6% of children aged 1 - 5 had elevated blood lead levels (5 ug/dl or greater). Data for this measure are reported biennially.</p>

Strategic Measure: By 2018, reduce the percent difference in the geometric mean blood lead level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old to 10.0 percent. (Baseline is 28.4 percent difference in the geometric mean blood lead level in low-income children ages 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old in 2007-2010 sampling period according to CDC National Health and Nutritional Evaluation Survey (NHANES).)

(PM 10D) Percent difference in the geometric mean blood level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	No Target Established	28	No Target Established	13	No Target Established	20	No Target Established	25	Percent
Actual	Biennial	28.4	Biennial	34.8	Biennial	Data Avail 10/2016			

Additional Information: Data released by CDC from the National Health and Nutritional Evaluation Survey (NHANES) for the 2007-2010 sampling period estimated the percent difference in the geometric mean blood level in low-income children 1-5 years old as compared to the geometric mean for non-low income children 1-5 years old is 28.4%. Data for this measure are reported biennially.

Strategic Measure: By 2018, reduce the concentration of perfluoro-octanoic acid (PFOA) in blood serum in the general population by 20 percent. (PFOA baseline is based on 2009-2010 geometric mean data in serum (3.07 µg/L) from the CDC's NHANES.)

(PM D6A) Reduction in concentration of PFOA in serum in the general population.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				1	No Target Established	25	No Target Established	41	Percent Reduction
Actual				32	Biennial	Data Avail 10/2016			

Additional Information: Derived from Centers for Disease Control's National Health and Nutrition Examination Survey (NHANES) on PFOA concentration in the general population. The geometric mean concentration in serum as determined from 2009-2010 sampling data is 3.07 µg/L. Data for this measure are reported biennially.

Strategic Measure: By 2018, complete Endocrine Disruptor Screening Program (EDSP) decisions for 100 percent of chemicals for which complete EDSP data is expected to be available by the end of 2017. (Baseline is 15 decisions have been completed through 2012 for any of the chemicals for which complete EDSP information is anticipated to be available by the end of 2017. EDSP decisions for a chemical can range from determining potential to interact with the estrogen, androgen, or thyroid hormone systems to otherwise determining whether further endocrine related testing is necessary.)

(PM E01) Number of chemicals for which Endocrine Disruptor Screening Program (EDSP) decisions have been

completed									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			3	5	20	59	0	52	Chemicals
Actual			3	1	0	3			
<p>Explanation of Results: In FY2014, the Endocrine Program stepped up its activities focused on incorporating recent advances in computational toxicology in order to realize an “evolutionary turning point” for EDSP prioritization, screening and testing. In addition to rapidly screening thousands of chemicals and overcoming the throughput limitations of traditional chemical toxicity testing, EPA expects these computational methods will eventually allow the Agency to move forward with replacing some whole animal EDSP test alternatives. In FY2014, the program brought the application of high throughput exposure (HTE) models to external scientific peer review and made significant progress in analyzing high throughput bioactivity (HTS) data for approximately 1800 chemicals in the EDSP universe. In addition, significant progress was made in developing an integrated approach to considering both HTE and HTS data to prioritize chemicals. These activities will be brought to external scientific peer review in the first quarter of FY2015. The FY2014 target of 59 chemical decisions was developed in anticipation of issuing test orders for a second list of chemicals to undergo endocrine screening and the completion of weight-of-evidence (WoE) determinations for the first list of chemicals. EPA does not yet have an approved Information Collection Request (ICR) necessary to issue test orders for a second list of chemicals and is therefore further considering the priority of these chemicals through application of computational tools. WoE determinations have proven to be more complex than originally anticipated and are now targeted for completion in FY2015. The three decisions accomplished in FY2014 were to exempt Diocetyl Sodium Sulfosuccinate (DSS), Undecylenic Acid (UDA), and Polybutene Resins; the agency having determined that these pesticide chemicals met the requirements under FFDCA 408(p), section 4. These decisions are publicly available in registration review dockets (EPA-HQ-OPP-2010-1006 for DSS)</p> <p>Additional Information: Baseline is 15 decisions have been completed through 2012 for any of the chemicals for which complete EDSP information is anticipated to be available by the end of 2017. EDSP decisions for a chemical can range from determining potential to interact with the estrogen, androgen, or thyroid hormone systems to otherwise determining whether further endocrine related testing is necessary. This measure tracks the number of chemicals with screening level decisions based on integrated scientific reviews of 1) Tier 1 assays, 2) other scientifically relevant information (e.g., CFR158 data, published literature, high throughput bioactivity and exposure information), and decisions based on other information that determines whether further endocrine related testing is necessary for a chemical (e.g., regulatory status of the chemical). The FY 2016 target of 52 chemicals with EDSP screening level decisions is based on anticipated results of high throughput bioactivity and exposure information either satisfying screening requirements, or prioritizing test orders for further screening level assays (e.g., Tier 1). The agency currently projects having an OMB approved ICR for screening List 2 chemicals in FY 2015 which would allow issuing test orders.</p>									
<p>Strategic Measure: By 2018, reduce rodenticide exposure incidents by 75 percent in children ages 1-6. (The baseline total number of confirmed and likely rodenticide exposures to children ages 1-6 in 2011 is 10,259 according to data by the Poison Control Centers' National Poison Data System.)</p>									
(PM 012) Percent reduction of children's exposure to rodenticides.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			10	5	5	10	25	25	Percent
Actual			0	5	12	17			

	<p><i>Explanation of Results:</i> OPP initiated regulatory action to cancel and remove non-compliant rodenticide products from the market and expects to see continued reductions in incidents involving children less than six years old. The 2015 target was adjusted upward to reflect these expectations.</p>
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	<p><i>Additional Information:</i> The baseline for the total number of confirmed and likely rodenticide exposures to children is 11,674 in 2008, based data from the Poison Control Centers' National Poison Data System. By FY 2011, the number of confirmed and likely rodenticide exposures to children ages 1-6 was 10,259.</p>
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Strategic Measure: By 2018, EPA will have assessed all currently identified TSCA Work Plan Chemicals. (Baseline is zero assessments finalized for the 83 initially identified TSCA Work Plan Chemicals through 2012.)

(PM RA1) Annual number of chemicals for which risk assessments are finalized through EPA's TSCA Existing Chemicals Program.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target						3	7	10	Risk Assessments Completed
Actual						4			

Explanation of Results: Final TSCA Risk Assessments for TCE, DCM, ATO, and HHCb were released in FY 2014.

Additional Information: The universe for this measure is the 83 TSCA Work Plan Chemicals identified by EPA on March 1, 2012, plus other chemicals for which EPA's TSCA Existing Chemicals Program publicly issues final risk assessments after FY 2012. The cumulative baseline through FY 2013 is zero.

(PM 009) Cumulative number of active certified Renovation Repair and Painting firms

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target		100,000	100,000	140,000	140,000	138,000	145,000	152,250	Firms
Actual		59,143	114,834	126,323	133,587	139,702			

Explanation of Results: Target for certified firms met for the first time in several years, due to continuing progress in getting renovators certified to perform RRP work.

Additional Information: The baseline is zero in 2009. FY 2010 is the first year that firms submitted applications to EPA to become certified. Over time, firms will either become certified directly through EPA (tracked through Federal Lead-based Paint Program (FLPP) or through an authorized State program (tracked through grant reports/internal database).

(PM 011) Number of Product Reregistration Decisions

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	2,000	1,500	1,500	1,200	1,200	900	600	550	Decisions
Actual	1,482	1,712	1,218	1,255	709	292			

Explanation of Results: Due to the impact of FY 2014 (furloughs, etc.), the completion of convention products was delayed until FY 2015 and outyear target was adjusted accordingly. The conventional pesticides are expected to be completed by early 2015 and the emphasis would move to the "smaller universe of antimicrobials." The Data Call-In (DCI) issue will need to be resolved before more anti-microbial pesticides can enter the pipeline.

Additional Information: By FY 2012, 18,208 product re-registrations decisions were made according to internal tracking as part of the product reregistration process. The product reregistration universe is 24,584 and the total completed at the close of FY 2014 is 19,216.

(PM 091) Percent of decisions completed on time (on or before PRIA or negotiated due date).

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target		99	99	99	99	97.0	96	96	Percent
Actual		99.7	98.4	99.1	98.8	85			

Explanation of Results: The end of year actual was impacted by the government furloughs, shutdown, and reductions in appropriated resources. This result was anticipated and discussed with OMB.

Additional Information: Baseline average percentage of decisions completed on time between 2010 and 2012 is 99.0% according to EPA internal data.

(PM 10A) Annual percentage of lead-based paint certification and refund applications that require less than 20 days of EPA effort to process.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	92	92	92	95	95	95	95	95	Percent
Actual	92	96	95	97	99	100			

Explanation of Results: Exceedance of this target reflects years of concerted and successful efforts to expedite handling of abatement individual certification and refund applications, ensuring that homeowners will have access to a sufficient pool of qualified abatement professionals to perform lead inspections, risk assessments and abatement work.

Additional Information: Baseline is 94%, as determined by averaging the annual performance results for this measure over the period 2008-2012. Data obtained from Federal Lead Based Paint Program (FLPP) information system.

(PM 143) Percentage of agricultural acres treated with reduced-risk pesticides.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	20	21	21	22	22.5	22.5	22.5	22.5	Percent
Actual	21.5	21	22	22.5	Data Avail 10/2015	Data Avail 10/2015			

Explanation of Results: 1 year data lag.

Additional Information: The baseline for acres-treated is 22% of total acreage in 2011 when the reduced-risk pesticide acre treatments was 315,000,000 and total (all pesticides) was 1,444,000,000 acre-treatments. Each year's total acre-treatments, as reported by USDA National Agricultural Statistic Service and private marketing research data sources serve as the basis for computing the percentage of acre-treatments using reduced risk pesticides. Acre-treatments count the total number of pesticides treatments each acre receives each year. Results are reported end of calendar year and are lagged one year.

(PM 247) Percent of new chemicals or organisms introduced into commerce that do not pose unreasonable risks to workers, consumers, or the environment.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	100	100	100	100	100	100	100	100	Percent
Actual	97	91	100	100	100	95			

Explanation of Results: Analysis of TSCA 8(e) notices submitted to EPA in FY 2013 indicated that three chemicals would likely have been found to potentially pose an unreasonable risk under TSCA had the information contained in the notices been available to EPA at the time of new chemical review. The original PMN submission timeframes for the three chemicals that would likely have been found to potentially pose an unreasonable risk are 1) the early 2000's, 2) approximately 5 years ago, and 3) approximately 10 years ago. Although the target was missed, the information developed as a result of the supporting annual study enables the New Chemicals program to strengthen its Premanufacture Notice (PMN) review procedures and to act quickly to make improvements.

Additional Information: Baseline is 97 percent, as determined by averaging the annual performance results for this measure over the period 2009-2012. Data obtained from the Annual OPPT report, "Study Comparing PMNs/LVEs to Related 8(e) Chemicals." Baseline is calculated by comparing Section 8(e) notices received in the fiscal year to previously reviewed PMNs. If a risk identified in a new Section 8(e) notice would not have been identified and mitigated by the review, then the program has not met the performance target. Approximately 30 Section 8(e) notices submitted annually are compared to previous PMNs for purposes of determining the annual performance result for this measure.

(PM 266) Reduction in concentration of targeted pesticide analytes in the general population.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	No Target Established	50	No Target Established	50, 50	No Target Established	50, 50			Percent
Actual	Biennial	Data Not Avail	Biennial	Deleted	Biennial	Deleted			

Explanation of Results: OMB approved measure deletion due to data unavailability.

Additional Information: Based on 2001-2002 Centers for Disease Control's National Health and Nutrition Examination Survey (NHANES) 95th percentile concentration of pesticides residues detected in urine samples from the general population for non-specific organophosphate metabolites is 0.45 µmol/L, and chlorpyrifos metabolite (TCPy) is 12.4 µg/L. Data for this measure reported biennially. FY2008 and 2010 data were recently received and reviewed. OCSPP is currently working with CDC for the release of the data. Measure deleted from strategic plan due to lack of data availability. Receipt of timely, accurate data has been an ongoing problem since inception of the measure. OCSPP never received results since the measure inception. Without results or sufficient data, a target for FY 2015 cannot be set.

(PM 281) Reduction in the cost per submission of managing PreManufacture Notices (PMNs) through the Focus meetings as a percentage of baseline year cost per submission.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target		61	63	65	67	81			Percent
Actual		50	59	65	67	67			

Explanation of Results: Missed target attributable to unexpected delays in finalizing the eTSCA and ePMN revisions rules, which were prerequisites for implementation of planned IT improvements anticipated to yield further cost efficiencies. Pending finalization of rules supporting further IT improvements, measured efficiency will remain stable at the level

Additional Information: Baseline is \$46.13 per submission in FY 2009 according to OPPT's Confidential Business Information Tracking System (CBITS) and Manage Toxic Substances (MTS) database and EPA's Financial Data Warehouse (FDW).

(PM C18) Percentage of existing CBI claims for chemical identity in health and safety studies reviewed and, as appropriate, challenged.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			5	10	13	22			Percent
Actual			5.3	59.7	13.4	19.1			

Explanation of Results: In setting its FY 2014 target, the EPA planned to complete review of existing CBI claims a year earlier than planned in the FY2011-FY2015 EPA Strategic Plan. As a result of the furloughs and sequestration funding levels, and the FY 2014 Government Shutdown, EPA was not able to meet the FY 2014 goal. There were also challenges in accessing some of the older files, and in identifying and contacting current owners of some of the subject filings, a situation which occurs because of routine buying and selling of market participant holdings. EPA reviewed 4,301 cases of CBI claims, representing 19.1% of the existing CBI claims universe of 22,483 reviewed in FY 2014, and a cumulative 97.5%. There are 565 remaining cases to be reviewed in FY 2015, representing the remaining 2.5% of the total universe. The Agency will complete the review of the remaining 565 cases by the 4th quarter of FY 2015.

Additional Information: Prior to August 2010, zero of 22,483 existing TSCA CBI claims for chemical identity, which potentially contain health and safety studies, had been reviewed or challenged, where appropriate. This is a revision of the previously stated baseline of January 2010, reflecting an improved understanding of the universe of existing CBI claims.

(PM C19) Percentage of CBI claims for chemical identity in health and safety studies reviewed and challenged, as appropriate, as they are submitted.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			100	100	100	100	100	100	Percent
Actual			100	100	100	100			

Additional Information: Prior to August 2010, 0percent of approximately 500 TSCA CBI claims submitted per year for chemical identity, which potentially contain health and safety studies, had been reviewed or challenged, where appropriate.

(PM E04) Number of chemicals with Tier 1 screening assay results reviewed.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target						52	0		Chemicals
Actual						52			

Additional Information: FY 2012 baseline is zero List 1 chemicals for which Tier 1 screening assays results will have completed reviews according to EPA internal tracking. This performance measure accounts for those scientific data evaluation records that have undergone primary and secondary technical reviews for the chemicals that have screening data submitted to the Agency. Targets for EDSP performance measures E01, E04, and E05 are set at zero for FY 2015 in reflection of the time needed for issuance of test orders and completion of the scientific data review processes. Issuance of test orders is dependent on an OMB-approved information collection request (ICR) for the List 2 chemicals. Currently, the ICR is being reviewed by OMB for a decision on whether or not to approve the request and the decision is stipulated on the agency responding to the initial ICR terms of clearance. The agency currently projects to have an OMB-approved ICR by no earlier than FY 2015 which would allow the agency to issue test orders no earlier than late 2015. When recipients receive the Tier 1 test order, the agency allows 2 years minimum for data generation and 1 year for the agency's review of that submitted data, a total of 3 years. Based on these projections, the agency anticipates that results for E01, E04, and E05 would not be realized until 2017.

(PM E05) Number of chemicals for which scientific weight of evidence determinations have been completed.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target						52	0		Chemicals
Actual						0			

Explanation of Results: The FY2014 target of 52 chemical decisions was developed in anticipation of the completion of weight-of-evidence (WoE) determinations for the first list of chemicals. WoE determinations have proven to be more complex than originally anticipated and are now targeted for completion in FY2015.

Additional Information: FY 2012 baseline is zero List 1 chemicals for which completed weight of evidence review documents have been completed according to EPA internal tracking. This measure accounts for the number of scientific weight of evidence and hazard characterizations completed; these hazard characterizations will be based on the integrated scientific reviews of the 1) Tier 1 data in combination with 2) other scientifically relevant information and 3) existing toxicity information (e.g., 40 CFR part 158). Targets for EDSP performance measures E01, E04, and E05 are set at zero for FY 2015 in reflection of the time needed for issuance of test orders and completion of the scientific data review processes. Issuance of test orders is dependent on an OMB-approved information collection request (ICR) for the List 2 chemicals. Currently, the ICR is being reviewed by OMB for a decision on whether or not to approve the request and the decision is stipulated on the agency responding to the initial ICR terms of clearance. The agency currently projects to have an OMB-approved ICR by no earlier than FY 2015 which would allow the agency to issue test orders no earlier than late 2015. When recipients receive the Tier 1 test order, the agency allows 2 years minimum for data generation and 1 year for the agency's review of that submitted data, a total of 3 years. Based on these projections, the agency anticipates that results for E01, E04, and E05 would not be realized until 2017.

(PM E06) Number of High Throughput (Screening HTS) assays and Quantitative Structure Activity Relationship (QSAR) models validated for EDSP chemical prioritization and screening.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target						8	18	6	Assays and Tools
Actual						8			

<p>Explanation of Results: In FY2014, EPA reached validation decisions for 8 estrogen receptor agonist assays that are part of the EPA ToxCast program. EPA considers these 8 assays valid for use in prioritizing chemicals for further evaluation in the EDSP. These assays were peer reviewed by the FIFRA Scientific Advisory Panel during the January 2013 review entitled: Prioritizing the Universe of Endocrine Disruptor Screening Program (EDSP) Chemicals Using Computational Toxicology Tools.</p> <p>Additional Information: FY 2012 baseline is zero assays or tools for which validation decisions have been reached for their use in chemical prioritization according to EPA internal tracking. There are several steps within the validation process including: preparation of detailed assay descriptions, performance reviews, validation by comparison to reference compounds, and peer reviews. A decision to discontinue validation efforts for a particular assay and/or tool could occur during any of these steps while a decision to accept an assay as validated occurs after all the steps are successfully completed. As HTS assays and QSAR models are validated for additional endpoints within the context of endocrine adverse outcome pathways, these tools will substitute for existing Tier 1 screening battery assays significantly increasing the number of chemicals addressed within the EDSP over time (link to E01).</p>										
(PM J15) Reduction in concentration of targeted pesticide analytes in children.										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target				50,50	No Target Established	50, 50			Percent	
Actual				Data Not Avail	Biennial	Deleted				
<p>Explanation of Results: OMB Approved deletion due to data unavailability.</p> <p>Additional Information: Derived from 2001-2002 Centers for Disease Control's National Health and Nutrition Examination Survey (NHANES) metabolite concentration data in children for non-specific organophosphate metabolites is 0.55 µmol/L, and Chlorpyrifos metabolite (TCPy) is 16.0 µg/L, respectively. Data for this measure is reported biennially. Measure deleted from strategic plan due to lack of data availability. Receipt of timely, accurate data has been an ongoing problem since inception of the measure. OCSPP never received results since the measure inception. Without results or sufficient data, targets for outyears cannot be set.</p>										
(2) Protect Ecosystems from Chemical Risks	<p>Strategic Measure: By 2018, no watersheds will exceed aquatic life benchmarks for targeted pesticides. (Data for 2012 provides the most recent percent of agricultural watersheds sampled by the USGS National Water Quality Assessment (NAWQA) program that exceeds the National Pesticide Program aquatic life benchmarks for azinphos-methyl (7 percent) and chlorpyrifos (7 percent). Urban watersheds sampled by the NAWQA program that exceeds the National Pesticide Program aquatic life benchmarks for diazinon (0 percent), chlorpyrifos (0 percent), and carbaryl (9 percent).)</p>									
	(PM 268) Percent of urban watersheds that do not exceed EPA aquatic life benchmarks for three key pesticides of concern (diazinon, chlorpyrifos and carbaryl).									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	No Target Established	5, 0, 20	No Target Established	5, 0, 10	No Target Established	0, 0, 0	No Target Established	0, 0, 0	Percent
Actual	Biennial	6.7, 0, 33	Biennial	0, 0, 9	Biennial	7, 0, 0				

Explanation of Results: The program relies on NAWQU for sampling data. The results reflect variations based on sites used for sampling, as seen in the diazinon result EOY 2014.

Additional Information: Urban watersheds sampled by the USGS National Water Quality Assessment (NAWQA) program that exceeds the National Pesticide Program aquatic life benchmarks in 2012 for diazinon, chlorpyrifos and carbaryl is 0 percent, 0 percent, 9 percent, respectively. Data for this measure are reported biennially. The number of sampling and the sampling points in USGS data were constantly changing year to year, depending on their funding. Results from previous reports showed that the exceedances were at different monitoring sites. Starting in FY 2015, the agency will use data from 10 specified sites for urban and 10 specified sites for agricultural sites from the USGS national monitoring sites in the future to provide consistency in data reporting. The monitoring sites were selected based on history of monitoring results, and anticipated consistency in reporting from these national sampling sites.

(PM 269) Percent of agricultural watersheds that do not exceed EPA aquatic life benchmarks for two key pesticides of concern (azinphos-methyl and chlorpyrifos).

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target		0, 10	No Target Established	0, 10	No Target Established	0, 0	No Target Established	0, 0	Percent
Actual		0, 8	Biennial	7, 7	Biennial	0, 0			

Additional Information: Agricultural watersheds sampled by the USGS National Water Quality Assessment (NAWQA) program that exceeds the National Pesticide Program aquatic life benchmarks for azinphos-methyl and chlorpyrifos are 7 percent and 7 percent, respectively. Data for this measure are reported biennially. The number of sampling and the sampling points in USGS data were constantly changing year to year, depending on their funding. Results from previous reports showed that the exceedances were at different monitoring sites. Starting in FY 2015, the agency will use data from 10 specified sites for urban and 10 specified sites for agricultural sites from the USGS national monitoring sites in the future to provide consistency in data reporting. The monitoring sites were selected based on history of monitoring results, and anticipated consistency in reporting from these national sampling sites.

(PM 164) Number of pesticide registration review docket opened.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target		70	70	70	72	73	73	66	Dockets
Actual		75	81	79	77	75			

Additional Information: By 2012, total of 376 chemical case work dockets were opened according to EPA internal data.

(PM 230) Number of pesticide registration review final work plans completed.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target		70	70	70	72	73	73	75	Work Plans
Actual		70	75	70	79	81			

Explanation of Results: The program put special emphasis on building a robust pipeline of completed workplans.

Additional Information: By 2012, total of 327 final workplans for registered pesticides were completed according to EPA internal data.

(PM 240) Maintain timeliness of Section 18 Emergency Exemption Decisions									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	45	45	45	45	45	45	45	45	Days
Actual	40	50	52	43	27	44			
<i>Additional Information:</i> Baseline average number of days for Section 18 decisions between 2009 and 2012 is 46 days according to EPA internal data.									
(PM 276) Percent of registration review chemicals with identified endangered species concerns, for which EPA obtains any mitigation of risk prior to consultation with DOC and DOI.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				5	5	15	5	5	Percent
Actual				0	0	0			
<i>Explanation of Results:</i> No final or interim decision where made in 2013 or 2014 which had an ESA concern warranting mitigation. There are a number of proposed decisions with ESA concerns that should go forward in 2015.									
<i>Additional Information:</i> The baseline is zero percent for each annual reporting period as percentages are not cumulative. The data is tracked by OPP using internal tracking numbers. The data is obtained from ecological risk assessments and effects determinations prepared to support a registration review case.									

Objective 2 - Promote Pollution Prevention: Conserve and protect natural resources by promoting pollution prevention and the adoption of other sustainability practices by companies, communities, governmental organizations, and individuals

Program Area	Performance Measures and Data									
(1) Promote Pollution Prevention	Strategic Measure: By 2018, reduce 600 million pounds of hazardous materials cumulatively through pollution prevention. (Baseline is 578 million pounds reduced from FY 2008 through FY 2012, after removing 626 million pounds in reported results that should not be expected to continue in future years due to atypical results, and increased quality assurance standards for the results that come from states and other grant recipients.)									
	(PM 264) Pounds of hazardous materials reduced through pollution prevention.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target	192	188.1	199.6	88.7	71.6	23.4	204.2	214.2	Pounds (Millions)
Actual	365.6	301.8	222.7	819.5	210.1	Data Avail 10/2015				

Program Area	Performance Measures and Data								
<p>Additional Information: There is a 1-year data lag. Baseline is 1,437 million pounds reduced from FY 2008 through FY 2012, after removing 626 million pounds in reported results that should not be expected to continue in future years due to: 1) atypical results, and 2) increased quality assurance standards for the results that come from states and other grant recipients. Previously reported results for FY 2009 - FY 2012 and baseline were corrected as a result of an error in reporting methodology that occurred when the program transitioned away from combining new and "recurring results" in GPRA measure targets and results. For FY 2013, the Pollution Prevention Program reported "recurring results" of an additional 819 Million Pounds of Hazardous Materials reduced, highlighting the ongoing benefits of Pollution Prevention Program activities. "Recurring results" are environmental benefits produced in prior years that continue to deliver environmental benefits over multiple years. By presenting solely new annual results for GPRA performance targets and results, the targets and results show a clearer alignment to the actual budget request and enacted levels. Within the Pollution Prevention Program, there is not a fixed standard number of years that environmental benefit results will recur; rather each P2 activity has a recurring results formula specific to the type of results and activities.</p>									
<p>Strategic Measure: By 2018, reduce 7 million metric tons of carbon dioxide equivalent (MMTCO2Eq.) cumulatively through pollution prevention. (Baseline is 7 MMTCO2Eq. reduced from FY 2008 through FY 2012, after removing 3.5 MMTCO2Eq in reported results that should not be expected to continue in future years due to atypical results, and increased quality assurance standards for the results that come from states and other grant recipients. The data from this measure are also calculated into the Agency's overall GHG measure under Goal 1.)</p>									
<p>(PM 297) Metric Tons of Carbon Dioxide Equivalent (MTCO2Eq) reduced or offset through pollution prevention.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	1.8	2.11	2.19	1.74	1.46	1.0	2.0	2.2	MMTCO2Eq
Actual	2.7	2.4	2.0	6.1	2.25	Data Avail 10/2015			
<p>Additional Information: Normal 1-year data lag. Baseline is 11.1 MMTCO2Eq. reduced from FY 2008 through FY 2012, after removing 3.5 MMTCO2Eq in reported results that should not be expected to continue in future years due to: 1) atypical results, and 2) increased quality assurance standards for the results that come from states and other grant recipients. Previously reported results for FY 2009 - FY 2012 and baseline were corrected as a result of an error in reporting methodology that occurred when the program transitioned away from combining new and "recurring results" in GPRA measure targets and results. For FY 2013, the Pollution Prevention Program reported "recurring results" of an additional 6.62 Million Metric Tons of Carbon Dioxide Equivalent reduced, highlighting the ongoing benefits of Pollution Prevention Program activities. "Recurring results" are environmental benefits produced in prior years that continue to deliver environmental benefits over multiple years. By presenting solely new annual results for GPRA performance targets and results, the targets and results show a clearer alignment to the actual budget request and enacted levels. Within the Pollution Prevention Program, there is not a fixed standard number of years that environmental benefit results will recur; rather each P2 activity has a recurring results formula specific to the type of results and activities.</p>									
<p>Strategic Measure: By 2018, reduce 6.9 billion gallons of water use cumulatively through pollution prevention. (Baseline is 6.9 billion gallons reduced from FY 2008 through FY 2012, after removing 24 billion gallons in reported results that should not be expected to continue in future years due to atypical results, and increased quality assurance standards for the results that come from states and other grant recipients.)</p>									
<p>(PM 262) Gallons of water reduced through pollution prevention.</p>									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit

Program Area	Performance Measures and Data									
	Target	1,790	781	783	785	771	932	1,156	1,390	Gallons (Millions)
	Actual	650	1,472	1,397	1,175	936	Data Avail 10/2015			
<p>Additional Information: There is a 1-year data lag. Baseline is 6.9 billion gallons reduced from FY 2008 through FY 2012, after removing 24 billion gallons in reported results that should not be expected to continue in future years due to: 1) atypical results, and 2) increased quality assurance standards for the results that come from states and other grant recipients. For FY 2013, the Pollution Prevention Program is reporting "recurring results" of an additional 25 Billion Gallons of Water reduced, "recurring results" are results produced in prior years that continue to deliver environmental benefits over multiple years, highlighting the ongoing benefits of Pollution Prevention Program activities. "Recurring results" are environmental benefits produced in prior years that continue to deliver environmental benefits over multiple years. By presenting solely new annual results for GPRA performance targets and results, the targets and results show a clearer alignment to the actual budget request and enacted levels. Within the Pollution Prevention Program, there is not a fixed standard number of years that environmental benefit results will recur; rather each P2 activity has a recurring results formula specific to the type of results and activities.</p>										
<p>Strategic Measure: By 2018, save \$ 1.3 billion in business, institutional, and government costs cumulatively through pollution prevention improvements. (Baseline is \$1.33 billion saved from FY 2008 through FY 2012, after removing \$231 million in reported results that should not be expected to continue in future years due to atypical results, and increased quality assurance standards for the results that come from states and other grant recipients.)</p>										
<p>(PM 263) Business, institutional and government costs reduced through pollution prevention.</p>										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
	Target	130	253.9	268.5	196.9	195.6	133.3	362.6	445.6	Dollars Saved (Millions)
	Actual	449.7	289.8	313.8	718.8	425.4	Data Avail 10/2015			
<p>Additional Information: Baseline is \$1.85 billion saved from FY 2008 through FY 2012, after removing \$231 million in reported results that should not be expected to continue in future years due to: 1) atypical results, and 2) increased quality assurance standards for the results that come from states and other grant recipients. Previously reported results for FY 2009 - FY 2012 and baseline were corrected as a result of an error in reporting methodology that occurred when the program transitioned away from combining new and "recurring results" in GPRA measure targets and results. For FY 2013, the Pollution Prevention Program reported "recurring results" of an additional \$841 Million Dollars saved, highlighting the ongoing benefits of Pollution Prevention Program activities. "Recurring results" are environmental benefits produced in prior years that continue to deliver environmental benefits over multiple years. By presenting solely new annual results for GPRA performance targets and results, the targets and results show a clearer alignment to the actual budget request and enacted levels. Within the Pollution Prevention Program, there is not a fixed standard number of years that environmental benefit results will recur; rather each P2 activity has a recurring results formula specific to the type of results and activities.</p>										
<p>Strategic Measure: By 2018, increase the number of safer chemicals and safer chemical products cumulatively by 1,900. (Baseline is 600 safer chemicals and 2,500 safer chemical products recognized in 2013 by the Design for the Environment program.)</p>										
<p>(PM P26) Number of safer chemicals and safer chemical products.</p>										
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	

Program Area	Performance Measures and Data										
	Target								475	475	Chemicals/P roducts
	Actual										
<p><i>Additional Information:</i> Baseline is 600 safer chemicals and 2,500 safer chemical products recognized in 2013 by the Design for the Environment program. In FY 2014, the Pollution Prevention Program's Design for the Environment Program recognized an additional 171 products under the Safer Products Labeling Program and listed an additional 49 chemicals on the Safer Chemicals Ingredients List.</p>											

GOAL 5: PROTECTING HUMAN HEALTH AND THE ENVIRONMENT BY ENFORCING LAWS AND ASSURING COMPLIANCE

Protect human health and the environment through vigorous and targeted civil and criminal enforcement. Use Next Generation Compliance strategies and tools to improve compliance with environmental laws.

Objective 1 - Enforce Environmental Laws to Achieve Compliance: Pursue vigorous civil and criminal enforcement that targets the most serious water, air, and chemical hazards in communities to achieve compliance. Assure strong, consistent, and effective enforcement of federal environmental laws nationwide. Use Next Generation Compliance strategies and tools to improve compliance and reduce pollution.

Program Area	Performance Measures and Data									
(1) Maintain Enforcement Presence	Strategic Measure: By 2018, conduct 79,000 federal inspections and evaluations (5-year cumulative). (FY 2005-2009 baseline: 21,000 annually. Status for FY 2013: 18,000.)									
	(PM 409) Number of federal inspections and evaluations.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target				19,000	17,000	17,000	15,500	15,500	Inspections/ Evaluations
	Actual				20,000	18,000	16,000			
	<i>Explanation of Results:</i> EPA is pursuing larger, more complex risk-based inspections which has led to fewer inspections overall. Our focus on these types of inspections allows us to make the biggest difference to human health and the environment as our resources have declined.									
	<i>Additional Information:</i> FY 2005-2009 baseline: 21,000 annually.									
	Strategic Measure: By 2018, initiate 14,000 civil judicial and administrative enforcement cases (5-year cumulative). (FY 2005-2009 baseline: 3,900 annually. Status for FY 2013: 2,400.)									
	(PM 410) Number of civil judicial and administrative enforcement cases initiated.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				3,300	3,200	3,200	2,700	2,700	Cases	
Actual				3,000	2,400	2,300				
<i>Explanation of Results:</i> FY 2014 result is lower than target. EPA is pursuing larger, more complex risk-based enforcement cases, which has led to fewer enforcement initiations and conclusions overall. Our focus on higher impact cases, with fewer small cases, allows us to make the biggest difference to human health and the environment as our resources have declined.										
<i>Additional Information:</i> FY 2005-2009 baseline: 3,900 annually.										

Strategic Measure: By 2018, conclude 13,600 civil judicial and administrative enforcement cases (5-year cumulative). (FY 2005-2009 baseline: 3,800 annually. Status for FY 2013: 2,500.)

(PM 411) Number of civil judicial and administrative enforcement cases concluded.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				3,200	3,000	2,800	2,400	2,400	Cases
Actual				3,000	2,500	2,300			

Explanation of Results: FY 2014 result is lower than target. EPA is pursuing larger, more complex risk-based enforcement cases, which has led to fewer enforcement initiations and conclusions overall. Our focus on higher impact cases, with fewer small cases, allows us to make the biggest difference to human health and the environment as our resources have declined.

Additional Information: FY 2005-2009 baseline: 3,800 annually.

Strategic Measure: By 2018, maintain review of the overall compliance status of 100 percent of the open consent decrees. (Baseline 2009: 100 percent. Status for FY 2013: 91 percent.)

(PM 412) Percentage of open consent decrees reviewed for overall compliance status.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				100	100	100	100	100	Percent
Actual				91	91	100			

Additional Information: FY 2012 is the first year of collecting data for this measure.

Strategic Measure: Each year through 2018, support clean ups and save federal dollars for sites where there are no alternatives by: (1) reaching a settlement or taking an enforcement action before the start of a remedial action at 99 percent of Superfund sites having viable responsible parties other than the federal government; and, (2) addressing all cost recovery statute of limitation cases with total past costs greater than or equal to \$500,000. ((1) FY 2007-2009 annual average baseline: 99 percent of sites reaching a settlement or EPA taking an enforcement action. (2) FY 2009 baseline: 100 percent cost recovery statute of limitation cases addressed. (Status for FY 2013: 100 percent.))

(PM 078) Percentage of all Superfund statute of limitations cases addressed at sites with unaddressed past Superfund costs equal to or greater than \$500,000.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	100	100	100	100	100	100	100	100	Percent
Actual	100	100	100	100	100	100			

<p><i>Additional Information:</i> In FY 2009, the Agency addressed 100 percent of Cost Recovery at all NPL and non-NPL sites with total past costs equal to or greater than \$200,000. The threshold for this measure was increased from \$200,000 to \$500,000 in FY 2013 to focus prioritization efforts.</p>
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	(PM 285) Percentage of Superfund sites having viable, liable responsible parties other than the federal government where EPA reaches a settlement or takes an enforcement action before starting a remedial action.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target	95	95	95	99	99	99	99	99	Percent	
Actual	100	98	100	100	100	100				
<i>Additional Information:</i> In FY 1998 approximately 70 percent of new remedial work at NPL sites (excluding Federal facilities) was initiated by private parties. In FY 2003, a settlement was reached or an enforcement action was taken with non-Federal PRPs before the start of the remedial action at approximately 90 percent of Superfund sites.										
(2) Support Addressing Climate Change and Improving Air Quality	Strategic Measure: By 2018, reduce, treat, or eliminate 1,590 million estimated pounds of air pollutants as a result of concluded enforcement actions (5-year cumulative). (FY 2005-2008 baseline: 480 million pounds, annual average over the period. Status for FY 2013: 610 million pounds.)									
	(PM 400) Millions of pounds of air pollutants reduced, treated, or eliminated through concluded enforcement actions.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target		480	480	480	450	350	310	310	Million Pounds
	Actual		410	1,100	250	610	140			
<i>Explanation of Results:</i> Results for this measure are highly variable from year to year. The results for this measure are usually driven by a small number of very large enforcement cases, which yield the majority of the pounds addressed and can cause significant fluctuations in results from year to year, depending on the cases concluded in any given year.										
<i>Additional Information:</i> FY 2005-2008 Average Baseline: 480 million pounds, annual average over the period. As OECA continues to make progress addressing large air pollution violators, such as utilities, OECA's future annual enforcement actions will be comprised of cases with significant public health impacts but a smaller number of pounds of pollution. We are increasingly focused on large sources of air toxics, where even small emissions reductions can have significant health benefits. We would therefore expect to see this total pounds measure go down in future years, as a combined result of success in addressing the largest sources and a focus on more toxic air pollutants.										
(3) Support Protecting America's Waters	Strategic Measure: By 2018, reduce, treat, or eliminate 1,280 million estimated pounds of water pollutants as a result of concluded enforcement actions (5-year cumulative). (FY 2005-2008 baseline: 320 million pounds, annual average over the period. Status for FY 2013: 660 million pounds.)									
	(PM 402) Millions of pounds of water pollutants reduced, treated, or eliminated through concluded enforcement actions.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target		320	320	320	320	280	250	250	Million Pounds
Actual		1,000	740	500	660	340				

	<p>Additional Information: FY 2005-2008 Average Baseline: 320 million pounds, annual average over the period. For FY 2010, two stormwater home builder actions contributed to more than half of the one billion pound pollutant reduction result. As we complete work on compliance agreements with the largest cities and begin to address non-compliance in smaller cities, the total pounds of pollution is expected to decline. This reduction will be a combined results of addressing some of the largest and most serious violations and putting those dischargers on a path to remediation, as well as our focus on other sources of water pollution that are smaller in number of pounds but very important to protecting water quality.</p>									
(4) Support Cleaning Up Communities and Advancing Sustainable Development	<p>Strategic Measure: By 2018, treat, minimize, or properly dispose of 14,600 million estimated pounds of hazardous waste as a result of concluded enforcement actions (5-year cumulative).(FY 2008 baseline: 6,500 million pounds. Status for FY 2013: 150 million pounds.)</p>									
	<p>(PM 405) Millions of pounds of hazardous waste reduced, treated, or eliminated through concluded enforcement actions.</p>									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target		6,500	6,500	6,500	6,000	5,000	2,400	2,400	Million Pounds
	Actual		11,800	3,600	4,400	150	700			
	<p>Explanation of Results: Results for this measure are highly variable from year to year. The results for this measure are usually driven by a small number of very large enforcement cases, which yield the majority of the pounds addressed and can cause significant fluctuations in results from year to year, depending on the cases concluded in any given year.</p>									
	<p>Additional Information: Prior to FY 2016, this measure only included hazardous waste. Beginning in FY 2016, the target for this measure will be revised to include hazardous plus non-hazardous waste. Also beginning in FY 2016, this measure will report (separately) both hazardous and non-hazardous waste subtotals addressed and remediated through EPA enforcement actions. Non-hazardous waste subtotals were previously included in PM 404. FY 2008 Baseline: 6,500 million pounds. The results for this measure are driven by a small number of very large cases and, therefore, can cause significant fluctuations in the results from year to year. For example, in FY 2010 over 99% of the total 11.75 billion pounds of hazardous waste reduced, treated, or eliminated came from two cases - CF Industries Inc. (9.87 billion pounds) and Exxon Mobil Oil Corporation (1.86 billion pounds). Given the types of cases that are nearing completion, OECA's shift in focus is expected to result in fewer millions of pounds of pollution reduced overall.</p>									
	<p>Strategic Measure: By 2018, obtain commitments to clean up 1,025 million cubic yards of contaminated soil and groundwater media [4] as a result of concluded CERCLA and RCRA corrective action enforcement actions (5-year cumulative). (FY 2007-2009 baseline: 300 million cubic yards of contaminated soil and groundwater media, annual average over the period. Status for FY 2013: 750 million cubic yards.)</p>									
	<p>(PM 417) Millions of cubic yards of contaminated soil and groundwater media EPA has obtained commitments to clean up as a result of concluded CERCLA and RCRA corrective action enforcement actions.</p>									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				300	275	225	200	200	Million Cubic Yards	
Actual				400	750	900				

<p><i>Additional Information:</i> FY 2007-2009 baseline: 300 million cubic yards of contaminated soil and groundwater media, annual average over the period. Contaminated groundwater media, as defined for the Superfund and RCRA corrective action programs, is the volume of physical aquifer (both soil and water) that will be addressed by the response action. The results for this measure are usually driven by a small number of very large cases, which can cause a significant fluctuation in results from year to year depending on the types of cases concluded in any given year. For example, in FY 2011 75% of the 937.4 million cubic yards of contaminated soil and groundwater media to be cleaned up under concluded CERCLA and RCRA corrective action enforcement actions came from one case. Additionally, the FY 2013 target was adjusted (from 300 to 275) to reflect decreases in contributing program project areas in the FY 2013 budget.</p>
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(5) Support Ensuring the Safety of Chemicals and Preventing Pollution	Strategic Measure: By 2018, reduce, treat, or eliminate 14 million estimated pounds of toxic and pesticide pollutants as a result of concluded enforcement actions (5-year cumulative). (FY 2005-2008 baseline: 3.8 million pounds, annual average over the period. Status for FY 2013: 4.6 million pounds.)									
	(PM 404) Millions of pounds of toxic and pesticide pollutants reduced, treated, or eliminated through concluded enforcement actions.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target		3.8	3.8	3.8	3.0	2.5	2.3	2.3	Million Pounds
	Actual		8.3	6.1	1,400	4.6	41			
	<i>Additional Information:</i> Prior to FY 2016, this measure included non-hazardous wastes. Beginning in FY 2016, non-hazardous wastes addressed and remediated through EPA enforcement actions, which have been reported as part of this measure, will be reported as part of PM 405. FY 2005-2008 Average Baseline: 3.8 million pounds, annual average over the period. The results for this measure are usually driven by a small number of very large enforcement cases, which yielded the majority of the pounds addressed and can cause significant fluctuations in results from year to year, depending on the types of cases concluded in any given year.									
(6) Enhance Strategic Deterrence through Criminal Enforcement	Strategic Measure: By 2018, increase the percentage of criminal cases having the most significant health, environmental, and deterrence impacts to 45 percent. (FY 2010 baseline: 36 percent. Status for FY 2013: 44 percent.)									
	(PM 418) Percentage of criminal cases having the most significant health, environmental, and deterrence impacts.									
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
	Target				43	43	43	45	45	Percent
	Actual				45	44	48			
	<i>Additional Information:</i> FY 2010 baseline: 36 percent.									
	Strategic Measure: By 2018, maintain 75 percent of criminal cases with an individual defendant. (FY 2006-2008 baseline: 75 percent.)									
	(PM 419) Percentage of criminal cases with individual defendants.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit	
Target				75	75	75	75	75	Percent	
Actual				70	80	87				
<i>Additional Information:</i> FY 2006-2008 baseline: 75 percent.										

Strategic Measure: By 2018, increase the percentage of criminal cases with charges filed to 45 percent. (FY 2006-2010 baseline: 36 percent. Status for FY 2013: 38 percent.)									
(PM 420) Percentage of criminal cases with charges filed.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				40	40	40	45	45	Percent
Actual				44	38	39			
<i>Explanation of Results:</i> This result is within the expected annual variability of this measure.									
<i>Additional Information:</i> FY 2006-2010 baseline: 36 percent.									
Strategic Measure: By 2018, maintain an 85 percent conviction rate for criminal defendants. (FY 2006-2010 baseline: 85 percent. Status for FY 2013: 94 percent.)									
(PM 421) Percentage of conviction rate for criminal defendants.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				85	85	85	85	85	Percent
Actual				95	94	95			
<i>Additional Information:</i> FY 2006-2010 baseline: 85 percent.									

OFFICE OF RESEARCH AND DEVELOPMENT

Performance Measures and Data

(PM AC1) Percentage of products completed on time by Air, Climate, and Energy research program.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				100	100	100	100	100	Percent
Actual				100	92	87			

Explanation of Results: Several ACE research efforts were delayed in FY 2014, including research on developing an improved method for measuring acrolein in national monitoring networks, and research on methods, approaches, and protocols for determining how obesity and metabolic disorders may be linked to early life. Delays were due to assigned staff being diverted to higher priority research efforts on method development, materials preparation, sample collection, sample analysis and data processing associated with EPA OAQPS proposed Petroleum Refinery Sector Risk and Technology Review and New Source Performance Standards rule (commonly referred to as the proposed Benzene Fenceline Rule) and an urgent request from Region 2 and the State of NJ for technical support.

Additional Information: A research product is "a deliverable that results from a specific research project or task. Research products may require translation or synthesis before integration into an output ready for partner use." This secondary performance measure tracks the timely completion of research products. Working with its partners, each program develops a list of planned research products and their associated outputs. The list reflects all products the program plans to complete by the end of each fiscal year. The estimated completion date is based on when the output is needed for partner use and when the research products are needed to be transformed into the output. The actual product completion date is self-reported. The program strives to complete 100% of its planned products each year so that it can best meet EPA and other partners' needs.

(PM AC2) Percentage of planned research outputs delivered to clients for use in taking action on climate change or improving air quality.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				100	100	100	100	100	Percent
Actual				77	83	92			

Explanation of Results: Several ACE research efforts were delayed in FY 2014, including profiles of criteria and toxic emissions from ethanol-blend gasoline and biodiesel combustion in on-road motor vehicles for identification and evaluation of potential toxicity differences among biofuel content and operating conditions, and a synthesis report on the impacts of air pollution on health in Cleveland, OH. Delays to the profiles of emissions were due to the fact that a research product supporting the development of that output is not due until FY 2015, and delays to the synthesis report were due to PI FTE being diverted to higher priority needs on the Hydrofracking Congressional Report.

Additional Information: Research outputs result from the translation or synthesis of one or more research products into the format compatible with the partner's decision needs. "Delivery of a research output" means that the output is transferred to ORD's research partner ready for the intended partner use. EPA identifies and describes the planned outputs in the program's Research Program Strategic Plan. At the end of the fiscal year, the program reports on its success in meeting its planned annual outputs. The program strives to complete 100% of its planned outputs each year so that it can best meet EPA and other partners' needs. To ensure the ambitiousness of its annual output measures, ORD has better formalized the process for developing and modifying program outputs, including requiring that ORD programs engage partners when making modifications. Involving partners in this process helps to ensure the ambitiousness of outputs on the basis of partner utility.

(PM CS1) Percentage of planned research products completed on time by the Chemical Safety for Sustainability research program.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				100	100	100	100	100	Percent
Actual				100	100	100			
<i>Explanation of Results:</i> CSS met 100% of its planned research products in FY 2014.									
<i>Additional Information:</i> A research product is "a deliverable that results from a specific research project or task. Research products may require translation or synthesis before integration into an output ready for partner use." This secondary performance measure tracks the timely completion of research products. Working with its partners, each program develops a list of planned research products and their associated outputs. The list reflects all products the program plans to complete by the end of each fiscal year. The estimated completion date is based on when the output is needed for partner use and when the research products are needed to be transformed into the output. The actual product completion date is self-reported. The program strives to complete 100% of its planned products each year so that it can best meet EPA and other partners' needs.									
(PM CS2) Percentage of planned research outputs delivered to clients and partners to improve their capability to advance the environmentally sustainable development, use, and assessment of chemicals.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				100	100	100	100	100	Percent
Actual				50	100	100			
<i>Explanation of Results:</i> CSS met 100% of its planned research outputs in FY 2014.									
<i>Additional Information:</i> Research outputs result from the translation or synthesis of one or more research products into the format compatible with the partner's decision needs. "Delivery of a research output" means that the output is transferred to ORD's research partner ready for the intended partner use. EPA identifies and describes the planned outputs in the program's Research Program Strategic Plan. At the end of the fiscal year, the program reports on its success in meeting its planned annual outputs. The program strives to complete 100% of its planned outputs each year so that it can best meet EPA and other partners' needs. To ensure the ambitiousness of its annual output measures, ORD has better formalized the process for developing and modifying program outputs, including requiring that ORD programs engage partners when making modifications. Involving partners in this process helps to ensure the ambitiousness of outputs on the basis of partner utility.									
(PM HC1) Percentage of planned research products completed on time by the Sustainable and Healthy Communities research program.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				100	100	100	100	100	Percent
Actual				100	83	81			

Explanation of Results: Several SHC research efforts were delayed in FY 2014, including: a report on tools to map/predict potential seagrass habitat zones in estuaries and N loading; research on efficient and rapid methods to determine the potential for vapor intrusion, and; a calibrated watershed-scale model for simulating the transport of contaminated sediments, suspended, and dissolved particulate matter in receiving water bodies. Delays were due to sequestration, the shut-down, and IT interruptions associated with Windows 7 and ArcMap upgrades, as well as budget cuts. Additionally, there was a delay in obtaining funding for the Interagency Agreement with the USGS for data collection on the watershed-scale model.

Additional Information: A research product is "a deliverable that results from a specific research project or task. Research products may require translation or synthesis before integration into an output ready for partner use." This secondary performance measure tracks the timely completion of research products. Working with its partners, each program develops a list of planned research products and their associated outputs. The list reflects all products the program plans to complete by the end of each fiscal year. The estimated completion date is based on when the output is needed for partner use and when the research products are needed to be transformed into the output. The actual product completion date is self-reported. The program strives to complete 100% of its planned products each year so that it can best meet EPA and other partners' needs.

(PM HC2) Percentage of planned research outputs delivered to clients, partners, and stakeholders for use in pursuing their sustainability goals.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				100	100	100	100	100	Percent
Actual				50	68	100			

Explanation of Results: 100% of SHC's planned research outputs were met in FY 2014.

Additional Information: Research outputs result from the translation or synthesis of one or more research products into the format compatible with the partner's decision needs. "Delivery of a research output" means that the output is transferred to ORD's research partner ready for the intended partner use. EPA identifies and describes the planned outputs in the program's Research Program Strategic Plan. At the end of the fiscal year, the program reports on its success in meeting its planned annual outputs. The program strives to complete 100% of its planned outputs each year so that it can best meet EPA and other partners' needs. To ensure the ambitiousness of its annual output measures, ORD has better formalized the process for developing and modifying program outputs, including requiring that ORD programs engage partners when making modifications. Involving partners in this process helps to ensure the ambitiousness of outputs on the basis of partner utility.

(PM HS1) Percentage of planned research products completed on time by the Homeland Security research program.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				100	100	100	100	100	Percent
Actual				100	100	100			

Explanation of Results: 100 percent of the HSRP's planned research products were completed on time in FY14

Additional Information: A research product is "a deliverable that results from a specific research project or task. Research products may require translation or synthesis before integration into an output ready for partner use." This secondary performance measure tracks the timely completion of research products. Working with its partners, each program develops a list of planned research products and their associated outputs. The list reflects all products the program plans to complete by the end of each fiscal year. The estimated completion date is based on when the output is needed for partner use and when the research products are needed to be transformed into the output. The actual product completion date is self-reported. The program strives to complete 100% of its planned products each year so that it can best meet EPA and other partners' needs.

(PM HS2) Percentage of planned research outputs delivered to clients and partners to improve their capabilities to respond to contamination resulting from homeland security events and related disasters.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				100	100	100	100	100	Percent
Actual				78	100	100			

Explanation of Results: 100 percent of the HSRP's planned research outputs were completed on time in FY14.

Additional Information: Research outputs result from the translation or synthesis of one or more research products into the format compatible with the partner's decision needs. "Delivery of a research output" means that the output is transferred to ORD's research partner ready for the intended partner use. EPA identifies and describes the planned outputs in the program's Research Program Strategic Plan. At the end of the fiscal year, the program reports on its success in meeting its planned annual outputs. The program strives to complete 100% of its planned outputs each year so that it can best meet EPA and other partners' needs. To ensure the ambitiousness of its annual output measures, ORD has better formalized the process for developing and modifying program outputs, including requiring that ORD programs engage partners when making modifications. Involving partners in this process helps to ensure the ambitiousness of outputs on the basis of partner utility.

(PM RA1) Percentage of planned research products completed on time by the Human Health Risk Assessment research program.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				100	100	100	100	100	Percent
Actual				100	88	80			

Explanation of Results: Several HHRA research efforts were delayed in FY 2014, including development of a strategy to extend the cumulative risk framework to support "place based" assessments, release of final IRIS assessments, and updating the IRIS website to new EPA web template and technology (including enhanced search functions).

Additional Information: A research product is "a deliverable that results from a specific research project or task. Research products may require translation or synthesis before integration into an output ready for partner use." This secondary performance measure tracks the timely completion of research products. Working with its partners, each program develops a list of planned research products and their associated outputs. The list reflects all products the program plans to complete by the end of each fiscal year. The estimated completion date is based on when the output is needed for partner use and when the research products are needed to be transformed into the output. The actual product completion date is self-reported. The program strives to complete 100% of its planned products each year so that it can best meet EPA and other partners' needs.

(PM RA2) Percentage of planned research outputs delivered to clients and partners for use in informing human health decisions.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				100	100	100	100	100	Percent
Actual				38	100	67			

Explanation of Results: This measure was not met in FY2014 because no final IRIS assessments were released in FY2014. The Libby asbestos assessment was released Q1 2015 (12/8/2015); V2O5 in final phases.

Additional Information: Research outputs result from the translation or synthesis of one or more research products into the format compatible with the partner's decision needs. "Delivery of a research output" means that the output is transferred to ORD's research partner ready for the intended partner use. EPA identifies and describes the planned outputs in the program's Research Program Strategic Plan. At the end of the fiscal year, the program reports on its success in meeting its planned annual outputs. The program strives to complete 100% of its planned outputs each year so that it can best meet EPA and other partners' needs. To ensure the ambitiousness of its annual output measures, ORD has better formalized the process for developing and modifying program outputs, including requiring that ORD programs engage partners when making modifications. Involving partners in this process helps to ensure the ambitiousness of outputs on the basis of partner utility.

(PM RA6) Number of regulatory decisions in which decision-makers used HHRA peer-reviewed assessments (IRIS, PPRTVs, exposure assessments and other assessments)

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target					20	20	20	20	Number
Actual					140	100			

Explanation of Results: During FY14 well over 100 Agency decisions utilized assessment products from the HHRA research program. Some examples include:

- Standards: On-going technical support regarding the ISAs for various NAAQS
- Proposals and Rulemakings: HHRA assessments were used as part of the decision making for numerous proposals and final rules by the Agency's program offices: Ferroalloys Production, Petroleum Refineries, Flexible Foam Production, Acrylic/Modacrylic Fibers, Polycarbonates, and Polymers and Resins III
- Numerous Assessments and Related Analysis Materials (e.g., Models, Approaches, Literature Searches, etc)
- Usage of the ORD Superfund Technical Support Center (STSC) and HHRA assessments by the Regions
- Program/regulatory support and workgroup activities

Additional Information: The measure calculates the number of Agency regulatory decisions for which clients use HHRA peer-reviewed health assessments. The measure is calculated by reviewing regulatory decisions and Records of Decision (ROD) made by EPA, determining how many quantitative health assessment values were used in these EPA program decisions, and what percentage of these values had been developed by the HHRA Program. This measure will be piloted in FY13 & FY14. The pilot of this measure in FY13 will be based on available information for FY10 and is unlikely to be reproducible. The feasibility of reliably reporting this measure will be piloted in FY14, contingent upon timely completion of the overhaul of the Agency ROD database. This restructured database will not be available for analysis until approx. 2 years after decisions are recorded and will start with FY11 RODs. We will evaluate the feasibility of this measure over 3 years with FY12 & 13 data being reported in FY15 & FY16, respectively.

(PM RA7) Annual milestone progress score for completing draft IRIS health assessments.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				50	50	40	40	40	Score
Actual				8	17	30			

Explanation of Results: The FY 2014 point score for this measure reflects the time necessary to implement the enhancements to the IRIS program recommended by the National Academy of Sciences. These enhancements, which have received widespread endorsement, have now begun to reflect in a significant and steady increase in productivity as evidenced by an increase in the annual points from 8 in 2012 to 17 in 2013 to 30 in 2014.

Though this measure did not reach its target, significant progress was made. Some examples of milestones achieved in FY14 include:

- Benzo[a]-pyrene (BaP); Ethylene Oxide (EtO) (inhalation-cancer) -- Released external peer review draft
- Ethyl tert-butyl ether (ETBE) and tert-Butylalcohol (TBA); Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) -- Begin interagency science consultation
- Ammonia -- Conducted SAB CAAC External Peer Review

Additional Information: At the end of the fiscal year, the program reports on its success in meeting its planned annual outputs (detailed in the program's Multi-Year Plan). The program strives to complete 100% of its planned outputs each year so that includes such factors as client interest, complexity of science, and level of effort required. Points are scored by multiplying the weight of each assessment by the number of milestones completed in the assessment process. The program plans to target an average score of 50 points each year beginning in 2009, representing a steady and timely completion of draft assessments throughout each fiscal year. Near-term targets are based on the large volume of ongoing assessments that have not been released in draft due to the change in the process for external review. This measure will be assessed as a rolling average with potential annual excess rolled over to the next target year so as to provide incentives for completion of more milestones.

(PM RA8) Annual progress score for finalizing IRIS health assessments.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				20	20	15	15	15	Score
Actual				17	8	0			

Explanation of Results: This measure was not met in FY 2014 because no final IRIS assessments were released. In FY 2014, the IRIS program aggressively pursued implementation of IRIS enhancements (announced in July 2013), including greatly expanded stakeholder engagement. The two assessments that had been anticipated to be completed in FY14 were Libby amphibole asbestos, which was completed December 8, 2014, following extensive interagency engagement, and vanadium pentoxide, which is anticipated to be complete early in 2015 following extensive public engagement.

Additional Information: This measure tracks the program's ability to make progress in finalizing and releasing IRIS assessments under LTG1. The annual score, tracked cumulatively throughout the year, is based on the relative weighting of each chemical. Chemicals are weighted using a 3-tier system that includes client interest, complexity of science, and level of effort required. Points are scored by multiplying the weight of each assessment by the number of milestones completed in the assessment process. The program plans to target an average score of 20 points each year beginning in 2009, representing a steady and timely completion of final assessments throughout each fiscal year. Near-term targets are based on the large volume of ongoing assessments that have not been finalized due to the change in the process for external review and completion. This measure will be assessed as rolling average.

(PM SW1) Percentage of planned research products completed on time by the Safe and Sustainable Water Resources research program.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				100	100	100	100	100	Percent
Actual				86	70	90			

Explanation of Results: In FY 2014, the Waters of the United States Technical Support Document was delayed. The SAB review of the report was received in mid-October 2014. Staff then needed time to review the comments and make any needed revisions before sending it to the Administrator for review. It is anticipated that the final report will be released on or about January 15, 2015.

Additional Information: A research product is "a deliverable that results from a specific research project or task. Research products may require translation or synthesis before integration into an output ready for partner use." This secondary performance measure tracks the timely completion of research products. Working with its partners, each program develops a list of planned research products and their associated outputs. The list reflects all products the program plans to complete by the end of each fiscal year. The estimated completion date is based on when the output is needed for partner use and when the research products are needed to be transformed into the output. The actual product completion date is self-reported. The program strives to complete 100% of its planned products each year so that it can best meet EPA and other partners' needs.

(PM SW2) Percentage of planned research outputs delivered to clients and partners to improve the Agency's capability to ensure clean and adequate supplies of water that support human well-being and resilient aquatic ecosystems.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				100	100	100	100	100	Percent
Actual				50	100	100			

Explanation of Results: SSWR met 100% of its planned outputs in FY 2014.

Additional Information: Research outputs result from the translation or synthesis of one or more research products into the format compatible with the partner's decision needs. "Delivery of a research output" means that the output is transferred to ORD's research partner ready for the intended partner use. EPA identifies and describes the planned outputs in the program's Research Program Strategic Plan. At the end of the fiscal year, the program reports on its success in meeting its planned annual outputs. The program strives to complete 100% of its planned outputs each year so that it can best meet EPA and other partners' needs. To ensure the ambitiousness of its annual output measures, ORD has better formalized the process for developing and modifying program outputs, including requiring that ORD programs engage partners when making modifications. Involving partners in this process helps to ensure the ambitiousness of outputs on the basis of partner utility.

ENABLING AND SUPPORT PROGRAMS
OFFICE OF ADMINISTRATION AND RESOURCES MANAGEMENT

Performance Measures and Data									
(PM 009) Increase in number and percentage of certified acquisition staff (1102)									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target				335 / 80	323 / 80	85	85	85	Number/ Percent
Actual				323/85	285/ 85	93			
<i>Additional Information:</i> As of August 2013, there were 290 1102 staff on board, of which 246 (85%) were certified. Current projections for 1102 staff on board for FY 2014 is 290. While the Agency does not expect to meet the target number of 1102 on board for 2014, OARM will continue to strive to ensure that at least 85% of current 1102 staff are trained and certified.									
(PM 010) Cumulative percentage reduction in Greenhouse Gas (GHG) Scopes 1 & 2 emissions.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target		1.0	0.4	6.4	12.2	16.3	16.3	16.3	Percent
Actual		79.5	59	54.1	57.4	Data Avail 02/2015			
<i>Additional Information:</i> On October 8, 2009, the President signed Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," requiring all Federal Agencies to reduce their Green House Gas Scope 1 and 2 emissions (EPA committed to a 25% reduction by FY 2020 from a FY 2008 baseline). EPA's FY 2008 GHG Scope 1 and 2 emissions were 140,720 mTCO2e's. The Energy Policy Act of 2005 requires each federal agency to reduce energy use intensity by 3% annually through FY 2015. For the Agency's 29 reporting facilities, the FY 2003 energy consumption of British Thermal Units (BTUs) per square foot is 346,518 BTUs per square foot. EPA reset its annual/intermediate Scope 1 and 2 GHG reduction goals in its June 2011 Strategic Sustainability Performance Plan (S2P2).									
(PM 098) Cumulative percentage reduction in energy consumption.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	12	15	18	21	24	27	27	27	Percent
Actual	18	18.3	18.1	23.7	25.6	28.9			
<i>Additional Information:</i> On January 24, 2007, the President signed Executive Order 13423, "Strengthening Federal Environment, Energy, and Transportation Management," requiring all Federal Agencies to reduce their Green House Gas intensity and energy use by 3% annually through FY 2015. For the Agency's 29 reporting facilities, the FY 2003 energy consumption of British Thermal Units (BTUs) per square foot is 393,130 BTUs per square foot. OARM has reported baseline revisions each year – generally to correct for more accurate Gross square footages of various facilities. This results in FY 2003 baseline changes of +/- 200 BTUs/GSF/year and are reviewed and approved by DOE annually. In FY 2008, OARM submitted and DOE approved one FY 2003 baseline revision, and that was when the RTP advanced metering system began operations. OARM switched from “back of the envelope” calculations based on meter readings at the Central Utility Plant to metered data for chilled and hot water arriving at the RTP Main and RTP NCC facilities. That revision resulted in the revision to EPA’s present baseline to 390,000 +/- BTUs/GSF/Yr FY 2003 Baseline is 393,130 BTU/GSF/YR.									

OFFICE OF ENVIRONMENTAL INFORMATION

Performance Measures and Data									
(PM 052) Number of major EPA environmental systems that use the CDX electronic requirements enabling faster receipt, processing, and quality checking of data.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	50	60	60	67	75	80	77	80	Systems
Actual	55	60	64	68	73	89			
<i>Additional Information:</i> The Central Data Exchange program began in FY 2001 to enable States, Tribes and others to send environmental data to EPA through a centralized electronic process.									
(PM 053) States, tribes and territories will be able to exchange data with CDX through nodes in real time, using standards and automated data-quality checking.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	60	65	65	80	95	98	103	140	Users
Actual	59	69	72	92	97	102			
<i>Additional Information:</i> The Central Data Exchange program began in FY 2001 to enable States, Tribes and others to send environmental data to EPA through a centralized electronic process.									
(PM 998) EPA's TRI program will work with partners to conduct data quality checks to enhance accuracy and reliability of environmental data.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target					500	500	600	600	Quality Checks
Actual					600	600			
<i>Additional Information:</i> This metric will allow EPA to for the first time report on performance of the Toxics Release Inventory (TRI) program. Data checks will improve the accuracy and reliability of environmental data.									
(PM 999) Total number of active unique users from states, tribes, laboratories, regulated facilities and other entities that electronically report environmental data to EPA through CDX.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target			Baseline Year	58,000	70,000	75,000	84,000	90,000	Users
Actual			56,200	65,238	79,818	96,000			

Additional Information: This metric replaces PM 054 which was discontinued in FY 2011. PM 054 measured the number of users from states, tribes, laboratories and others that chose CDX to report environmental data electronically to EPA. The replacement measure PM 999 measures the total number of active, individual CDX users and more accurately measures CDX usage by screening out inactive users and multiple accounts from the same user. (Only users who have logged in within the previous two years = active users and each distinct user is counted only once, regardless of the number of different accounts, roles or locations.)

OFFICE OF THE INSPECTOR GENERAL

Performance Measures and Data									
(PM 35A) Environmental and business actions taken for improved performance or risk reduction.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	318	334	334	334	307	248	268	303	Actions
Actual	272	391	315	216	215	324			
<i>Additional Information:</i> Rationale: FY15 was adjusted to reflect the two year average of actual performance and the percentage difference between FY 14 and FY 15 Enacted levels. FY16 is the two year average of actual performance and the percentage difference between the FY15 Enacted level and the FY16 President's budget.									
(PM 35B) Environmental and business recommendations or risks identified for corrective action.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	903	903	903	903	786	687	967	1,096	Recommendations
Actual	983	945	2011	1242	1003	944			
<i>Additional Information:</i> Rationale: FY15 was adjusted to reflect the two year average of actual performance and the percentage difference between FY 14 and FY 15 Enacted levels. FY16 is the two year average of actual performance and the percentage difference between the FY15 Enacted level and the FY16 President's budget.									
(PM 35C) Return on the annual dollar investment, as a percentage of the OIG budget, from audits and investigations.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	120	120	120	110	125	132	220	248	Percent
Actual	150	36	151	743	248	734			
<i>Additional Information:</i> Rationale: In FY 2012 and FY 2014 the OIG issued a single report with usually high recommended efficiencies (FY 2012-\$372M; FY 2014-\$230M). These were excluded from the average calculations given that reports with massive ROI do not materialize every year. As such, FY 15 and FY 16 is the three year average of adjusted actual performance and the percentage difference between FY 14 and FY 15 Enacted levels and the FY15 Enacted level and the FY16 President's budget.									

(PM 35D) Criminal, civil, administrative, and fraud prevention actions.									
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Unit
Target	80	75	80	85	90	125	175	210	Actions
Actual	95	115	160	152	256	213			
<i>Additional Information:</i> Rationale: FY15 was adjusted to reflect a 40 percent subjective increase over the FY14 target. FY16 reflects a 20 percent subjective increase over the FY15 adjusted target.									

VERIFICATION/VALIDATION OF PERFORMANCE DATA

The Agency develops Data Quality Records (DQRs) to present validation/verification information for selected performance measures and information systems, consistent with guidance from the Office of Management and Budget. A DQR documents the management controls, responsibilities, quality procedures, and other metadata associated with the data lifecycle for individual performance measures, and is intended to enhance the transparency, objectivity, and usefulness of the performance result. EPA's program offices choose the measures for which to develop DQRs, consistent with the Agency's goal to provide documentation of quality procedures associated with each strategic measure. Each DQR can be considered current as of the most recent date for which the Agency has published results for the performance measure. All of EPA's current DQRs are available in PDF format at the following URL: <http://www2.epa.gov/planandbudget/archive#dqr>.

Please note, the PDF file includes DQRs that reference supporting documents, which are available upon request by sending an email with the name of the document and DQR to OCFOINFO@epa.gov. The email should indicate the measure number and text associated with the DQR, and the filename shown underneath the icon for the attachment.

**Environmental Protection Agency
2016 Annual Performance Plan and Congressional Justification**

Table of Contents – Appendix A

COORDINATION WITH OTHER FEDERAL AGENCIES	943
Environmental Programs	943
COORDINATION WITH OTHER FEDERAL AGENCIES	990
Enabling Support Programs	990
MAJOR MANAGEMENT CHALLENGES.....	998
EPA USER FEE PROGRAM.....	1013
WORKING CAPITAL FUND.....	1016
ACRONYMS for STATUTORY AUTHORITY	1018
FY 2016 STAG CATEGORICAL PROGRAM GRANTS	1023
PROGRAM PROJECTS BY PROGRAM AREA.....	1036
DISCONTINUED PROGRAMS	1046
Toxic Substances: Chemical Risk Management.....	1047
EXPECTED BENEFITS OF THE PRESIDENT’S E-GOVERNMENT INITIATIVES	1048
FY 2014-2015 EPA AGENCY PRIORITY GOALS	1053
PROPOSED FY 2016 ADMINISTRATIVE PROVISIONS.....	1055
FY 2016 ADMINISTRATOR’S PRIORITIES	1056
FISCAL YEAR 2016: CONSOLIDATIONS, REALIGNMENTS, OR OTHER TRANSFERS OF RESOURCES.....	1058
EPA BUDGET BY NATIONAL PROGRAM MANAGER AND MAJOR OFFICE.....	1059
ATTORNEY FEE AND COST PAYMENTS OBLIGATED IN FY 2014 UNDER EQUAL ACCESS FOR JUSTICE ACT (EAJA).....	1062
PHYSICIANS’ COMPARABILITY ALLOWANCE (PCA) WORKSHEET FOR PY 2015	1066
IG’S COMMENTS ON THE FY 2016 PRESIDENT’S BUDGET	1067

COORDINATION WITH OTHER FEDERAL AGENCIES

Environmental Programs

Goal 1- Taking Action on Climate Change and Improving Air Quality

Objective: Address Climate Change

To support the President's Climate Action Plan and to carry out a diverse range of regulatory and partnership programs that address climate change, the EPA works with a number of other federal agencies, including the Department of Energy (DOE), the Department of Agriculture (USDA), the Department of Housing and Urban Development (HUD), Department of State (DOS), the U.S. Agency for International Development (USAID), the Department of the Interior (DOI), the Federal Energy Regulatory Commission (FERC), and the Department of Transportation (DOT).

Climate protection partnership programs government-wide stimulate the development and use of renewable energy technologies and energy efficient products that will help reduce greenhouse gas (GHG) emissions. The effort is led by the EPA and DOE with significant involvement from the USDA, HUD, and the National Institute of Standards and Technology (NIST).

Agencies throughout the government make significant contributions to the climate protection programs. For example:

- DOE pursues actions such as promoting the research, development, and deployment of advanced technologies (for example, renewable energy sources).
- The Treasury Department may administer tax incentives for specific investments that will reduce emissions.
- The EPA responded to the President's directive to work with the National Highway Transportation Safety Administration (NHTSA) to develop a coordinated national program establishing standards to improve fuel efficiency and reduce GHG emissions for light-duty vehicles for model years 2017 and later. As a follow-up of this rulemaking, the two agencies will be working together on the coordination of a technology review in preparation for the implementation of these standards. In addition, the EPA and NHTSA are working together in the development of a proposal for a second phase of GHG and fuel economy standards for heavy-duty vehicles. The EPA is broadening its public information transportation choices campaign as a joint effort with the Department of Transportation (DOT).

The EPA coordinates with each of the above-mentioned agencies to safeguard against duplicative efforts.

The 2009 ENERGY STAR Memorandum of Understanding (MOU), signed by the EPA and DOE, defines clear lines of responsibility between the agencies that build upon and leverage their respective areas of expertise and outlines a number of program enhancements that will drive greater efficiency for American consumers and greater efficiency in homes and buildings. As part of the MOU, the EPA and DOE develop an annual work plan detailing key work across the

two agencies and highlighting their cooperative work on energy efficiency in commercial and residential buildings and the products and equipment that go into these buildings.

The EPA works primarily with State, USAID, and DOE as well as with regional organizations in implementing climate-related programs and projects. The EPA also works with the U.S. Trade Representative (USTR), Treasury, Commerce, and others to reduce the environmental impacts of international trade, shape environmental criteria for international finance and investment, and leverage opportunities to jointly advance US environmental and economic goals. In addition, the EPA partners with international organizations such as the United Nations Environment Programme, the United Nations Development Programme, the United Nations Economic Commission for Europe, the International Energy Agency, the Organization for Economic Cooperation and Development (OECD), the World Bank, the Asian Development Bank, and countries including Canada, Mexico, Europe, and Japan. The EPA also has created a national workgroup with representatives of Tribal environmental departments and governments to help ensure Tribal governments are included in the dialogue with federal agencies on climate change adaptation strategies.

In our efforts to address GHG emissions from ocean-going vessels and aircraft, the EPA continues to participate and lead discussions within the International Maritime Organization (IMO) and the International Civil Aviation Organization (ICAO) to develop GHG standards. In the maritime sector, the EPA collaborates with the Coast Guard (USCG) and other nations, such as Mexico and Canada. In the aviation area, the EPA collaborates with the Federal Aviation Administration (FAA).

An example of the EPA's coordination with other federal agencies, as well as international partners, is the Global Methane Initiative (GMI) (formerly known as the Methane to Markets Partnership). GMI is an international public-private initiative that advances cost-effective, near-term methane recovery and use as a clean energy source in four sectors: agriculture, coal mines, landfills, and oil and gas systems. These projects reduce greenhouse gas emissions in the near term and provide a number of important environmental and economic co-benefits. There are 40 partner countries and over 1,000 members of the Project Network, including private sector, nongovernmental organizations, and multilateral organizations such as the World Bank, the Asian Development Bank, and the Inter-American Development Bank. The EPA is the lead agency from the U.S. Government and coordinates with Department of State, DOE, USDA, USAID, and the U.S. Trade and Development Agency.

Research

The Agency coordinates its global change research with other federal agencies through the U.S. Global Change Research Program (USGCRP).¹ As an example of research coordinated under the USGCRP, the EPA is working with the National Oceanic Atmospheric Administration (NOAA), the U.S. Geological Survey, and the Army Corps of Engineers to study the impacts of climate change on estuarine ecosystems. The EPA's global change research efforts focus on understanding the impacts of climate change to air quality, water quality, and aquatic ecosystems, and includes efforts to improve models that address air and water pollution

¹ For more information, see <<http://www.globalchange.gov/>>.

formation and transport in the context of a changing climate. These modeling efforts require close coordination with other agencies to use the results of global-scale models as input to more detailed regional models that describe pollutant formation and transport at levels needed by local and state resource managers. This work includes research to better understand the emissions, transport, and impacts to health and climate of black carbon. Additional coordination of global change research occurs through the National Science and Technology Council's Committee on Environment and Natural Resources and Sustainability (CENRS) Subcommittee on Water Availability and Quality.

Objective: Improve Air Quality

The EPA cooperates with other federal, state, Tribal, and local agencies to achieve goals related to ground level ozone and particulate matter (PM) and to ensure the actions of other agencies do not interfere with state plans for attaining and maintaining the National Ambient Air Quality Standards. The EPA works with the USDA on land use issues. The EPA also continues to work closely with the USDA, the Department of the Interior (DOI), and the Department of Defense (DOD) in developing a policy that addresses prescribed burning at silviculture and agricultural operations. An MOU with USDA is in place to work on issues of mutual concern impacting agriculture and air quality. In 2012, the EPA and USDA signed Statement of Principles outlining how the offices would work together to replace agriculture engines and allow state implementation plan credits. In addition to coordination with other federal agencies through the interagency regulatory review process, the EPA has consulted with the Federal Energy Regulatory Commission about potential impacts of stationary internal combustion engine regulations on electric grid reliability, the bulk power system, municipal utilities and rural electric cooperatives. The EPA, DOT, and the Army Corps of Engineers (ACE) work with state and local agencies to integrate transportation and air quality plans, reduce traffic congestion, and promote livable communities. The Federal Highway Administration also worked with the EPA to provide guidance for deploying a near-road air monitoring network to protect the health of those working and living near the nation's major highways. The EPA works with the U.S. Forest Service, Centers for Disease Control (CDC), and the National Institute for Environmental Health Sciences (NIEHS) to reduce PM emissions from residential wood smoke and to provide health information. In addition, to promote awareness of ground level ozone and particulate matter, the EPA's School Flag and EnviroFlash programs are coordinating with the Department of Education (DoEd) on the Green Ribbon Schools initiative to promote air quality educational resources for students and teachers K-12. The EPA continues to work with the DOI, National Park Service (NPS), and U.S. Forest Service in implementing its regional haze program and operating the Interagency Monitoring of Protected Visual Environments (IMPROVE) visibility monitoring network. The operation and analysis of data produced by this air monitoring system is an example of the close coordination of efforts between the EPA and state and Tribal governments. The EPA also consults with the DOI Fish and Wildlife Service (FWS) and NOAA's National Marine Fisheries Service (NMFS) on the potential impact of federally permitted actions on endangered species.

For pollution assessments and transport, the EPA is working with the National Aeronautics and Space Administration (NASA) on technology transfer using satellite imagery. The EPA will work to further distribute NASA satellite products and NOAA air quality forecast products to

states, local agencies, and tribes to provide a better understanding of air quality on a day-to-day basis and to assist with air quality forecasting. The EPA works with NASA to develop a better understanding of PM formation using satellite data. The EPA works with the Department of the Army on advancing emission measurement technology and with NOAA for meteorological support for our modeling and monitoring efforts. The EPA collects real-time ozone and particulate matter (PM) measurements from state and local agencies, which are used by both NOAA and the EPA to improve and verify Air Quality Forecast models.

The EPA's AIRNow program (the national real-time Air Quality Index reporting and forecasting system) works with the National Weather Service (NWS) to coordinate NOAA air quality forecast guidance with state and local agencies for air quality forecasting efforts and to render the NOAA model output in the EPA Air Quality Index (AQI), which helps people determine appropriate air quality-protective behaviors. In wildfire situations, the EPA and the U.S. Forest Service (USFS) work closely with states to deploy monitors and report monitoring information and other conditions on AIRNow. The EPA is also working with the USFS to revise the health information in the smoke management guide, which is used by burn managers. The AIRNow program also collaborates with the NPS and the USFS in receiving air quality monitoring observations, in addition to observations from over 130 state, local, and Tribal air agencies. AIRNow also collaborates with NASA in a project to incorporate satellite data with air quality observations.

To better understand the magnitude, sources, and causes of mobile source pollution, the EPA works with the DOE and DOT to fund applied research projects. A program to characterize exhaust emissions from light-duty gasoline vehicles is co-funded by DOE and DOT. Other DOT mobile source projects include TRANSIMS (TRANSPORTATION ANALYSIS and SIMULATION SYSTEM) and other transportation modeling projects. DOE is funding these projects through the National Renewable Energy Laboratory. The EPA also works closely with DOE on refinery cost modeling analyses and the development of clean fuel programs. For mobile sources program outreach, the agency is participating in a collaborative effort with DOT's Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) to educate the public about the impacts of transportation choices on traffic congestion, air quality, and human health. This community-based public education initiative also includes the CDC. The EPA also works with FHWA to develop and deliver training on modeling emissions from cars and trucks. In addition, the EPA is working with DOE to identify opportunities in the Clean Cities program. The EPA also works with other federal agencies, such as the U.S. Coast Guard (USCG), on air emission issues, and other programs targeted to reduce air toxics from mobile sources are coordinated with DOT. These partnerships can involve policy assessments and toxic emission reduction strategies in different regions of the country. The EPA continues to work with DOE, DOT, and other agencies as needed on the requirements of the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007.

To develop air pollutant emission factors and emission estimation algorithms for aircraft, ground equipment, and military vehicles, the EPA partners with the DOD. This partnership will provide for the joint undertaking of air-monitoring/emission factor research and regulatory implementation.

To address criteria pollutant emissions (such as nitrogen oxide (NO_x) and PM) from marine and aircraft sources, the EPA works collaboratively with IMO and ICAO, as well as with other federal agencies, such as USCG and the FAA. EPA has also been collaborating with the USCG in the implementation of Emission Control Area (ECA) around the United States, and with Mexico and Canada in the Commission for Environmental Cooperation to develop the technical information needed to evaluate the benefits of establishing a Mexican ECA.

The EPA also works closely with other health agencies such as the CDC, NIEHS, and the National Institute for Occupational Safety and Health (NIOSH) on health risk characterization for both toxic and criteria air pollutants.

The EPA also contributes air quality data to the CDC's Environmental Public Health Tracking Program, which is made publicly available and used by state and local public health agencies. To assess atmospheric deposition and characterize ecological effects, the EPA works with NOAA, FWS, the NPS, the U.S. Geological Survey (USGS), the USDA, and the U.S. Forest Service (USFS).

The EPA has worked extensively with the Department of Health and Human Services (HHS) on the National Health and Nutritional Evaluation Study to identify mercury accumulations in humans. The EPA also has worked with DOE on the Fate of Mercury study to characterize mercury transport and traceability in Lake Superior. The EPA is a partner with the CDC in the development of the National Environmental Public Health Tracking Network, providing air quality indicators as well as air pollution health effects expertise.

To improve our understanding of environmental issues related to the agricultural sector, the EPA is working closely with the USDA and others to reduce emissions and improve air quality while supporting a sustainable agricultural sector. Our approach to the agriculture sector includes scientific assessment, outreach and education, and implementation/compliance. The scientific assessment will ensure that we are all guided by sound science. Because we do not have adequate emissions estimates for this sector, we need to develop an understanding of emissions profiles and establish monitoring and measurement protocols, technology transfer, and a research agenda. Through outreach and education, we will instill a long-term commitment to working with the agricultural community; build respect and trust; and identify, promote, and quantify new/existing control technologies. We also will encourage partnerships between the EPA, USDA, and their established partners and utilize existing USDA infrastructure (e.g., Extension Service, National Resources Conservation Services, land grant colleges and universities, and Farm Bill programs). Additionally, we will engage in active dialogue with the agriculture community. Our implementation/compliance approach will fully institute policies and practices to ensure that farming and land management communities continue to consider air quality as an integral part of their resource management. An appropriate mix of voluntary and regulatory programs will be implemented and we will utilize USDA infrastructure to implement air quality programs and compliance assistance where practical.

In developing regional and international air quality programs and projects, and in working on regional agreements, the EPA works with the DOS, NOAA, NASA, DOE, USDA, USAID, and the Office of Management and Budget (OMB), as well as with regional organizations. The

EPA's international air quality management program complements the EPA's programs on children's health, trade and the environment, climate change, and trans-boundary air pollution. In addition, the EPA partners with other organizations worldwide, including the United Nations Environment Programme, the European Union, the OECD, the United Nations Economic Commission for Europe, the North American Commission for Environmental Cooperation, the World Bank, the Asian Development Bank, the Clean Air Initiative for Asian Cities, the Global Air Pollution Forum, and our air quality colleagues in several countries, including Canada, Mexico, Europe, China, and Japan.

In contributing to international efforts to control air pollution sources that could impact the United States, the EPA engages in multilateral environmental agreements including the new Minamata Convention on Mercury, and with other organizations worldwide, including the United Nations Environment Programme, the European Union, the OECD, the United Nations Economic Commission for Europe, the North American Commission for Environmental Cooperation, the World Bank, the Asian Development Bank, the Clean Air Initiative for Asian Cities, the Global Air Pollution Forum, and our air quality colleagues in several countries, including Canada, Mexico, Europe, China, and Japan.

Improving Indoor Air Quality

The EPA works closely, through a variety of mechanisms, with a broad range of federal, state, Tribal, and local government agencies, industry, non-profit organizations, and individuals, as well as other nations, to promote more effective approaches to identifying and solving indoor air quality (IAQ) problems. At the federal level, the EPA works closely with several departments or agencies on healthy IAQ in homes, schools, other buildings, and on international issues. Examples include:

Improving IAQ in Homes

- HHS to reduce the burden of asthma -- by coordinating research, building community capacity, raising public awareness, and promoting the adoption of reimbursement for asthma care services, with a special emphasis on controlling indoor environmental exposures -- and to track progress on this objective;
- HUD to improve IAQ in homes;
- Consumer Product Safety Commission (CPSC) to identify and mitigate the health hazards of consumer products designed for indoor use;
- DOE to address IAQ in home weatherization programs; and
- USDA to encourage USDA extension agents to conduct local projects designed to improve indoor air quality.
- The EPA plays a leadership role on the President's Task Force on Environmental Health Risks and Safety Risks to Children, particularly with respect to asthma and school environmental health issues.
- The EPA is a member of the National Asthma Education and Prevention Program Coordinating Committee and the Federal Liaison Group on Asthma—the overarching coordination groups that focus on national asthma control efforts.

Improving IAQ in Schools

- DoEd on a wide range of school related indoor environmental quality initiatives, including development of voluntary guidelines mandated under the Energy Independence and Security Act of 2007 for siting of school facilities and state school environmental health programs, as well as the establishment of a DoEd-led Green Ribbon Schools initiative; and
- HHS and the CDC to promote healthy, asthma-friendly schools, and track progress on this objective.

IAQ and the Built Environment

- As a co-chair of the Federal Interagency Committee on Indoor Air Quality (CIAQ), the EPA coordinates the exchange of information on IAQ-related research and activities. The co-chair agencies include the CPSC, DOE, NIOSH and the Occupational Safety and Health Administration (OSHA), and another 20 federal departments and agencies participate as members.

Radon

- The EPA continues to implement the multi-agency - *Federal Radon Action Plan* – to increase radon testing, mitigation, and radon resistant new construction within each agency’s sphere of responsibility. To support the *Federal Radon Action Plan*, the EPA collaborates with HHS, USDA, DOD, DOE, HUD, DOI, Department of Veterans Affairs (VA) and General Services Administration (GSA).

International

- U.S. Government-wide Cookstoves Interagency Working Group, whose members include the DOS, the EPA, USAID, DOE, and HHS, to improve health, livelihood, and quality of life in developing countries by reducing exposure to indoor air pollution from household energy use through public-private partnership initiatives such as the Partnership for Clean Indoor Air and the Global Alliance for Clean Cookstoves.

Research on air quality

The EPA coordinates its air quality research with other federal agencies through the Subcommittee on Air Quality Research² of the CENRS. The Agency and NIEHS co-chaired the subcommittee’s Particulate Matter Research Coordination Working Group, which produced a strategic plan³ for federal research on the health and environmental effects, exposures, atmospheric processes, source characterization and control of fine airborne particulate matter. The EPA coordinates specific research projects with other federal agencies, where appropriate, and supports air-related research at universities and nonprofit organizations through its Science to Achieve Results (STAR) research grants program.

For example, the EPA is working with NASA to examine how to use satellite data to improve air quality management activities. The EPA works with several federal agencies to coordinate U.S.

² For more information, see <<http://www.al.noaa.gov/AORS/>>.

³ For more information, see <<http://www.al.noaa.gov/AORS/reports/srppm.html>>.

participation in Arctic research issues through the Interagency Arctic Research Policy Committee (IARPC).

The EPA also is working with the Army, as part of the Army's Net Zero Initiative, to develop and demonstrate innovative energy technologies to accomplish the Army's goal of net zero energy, water, and waste by 2020.

Furthermore, in coordination with federal partners DOE and USGS, the EPA will study potential impacts of hydraulic fracturing on air, water quality, water resources, ecosystems, and health. This research will assist decision makers (federal, state, and local; the industry and energy sectors, and the public) in making environmentally responsible decisions that ensure sustainable approaches to oil and natural gas extraction.

Objective: Restore the Ozone Layer

The EPA works very closely with the DOS and other federal agencies in international negotiations among Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer and in developing the implementing regulations. While the environmental goal of the Montreal Protocol is to protect the ozone layer, the ozone depleting substances it controls also are significant greenhouse gases. Therefore, this work also protects the Earth's climate system. According to a 2007 study published in the *Proceedings of the National Academy of Sciences*,⁴ chemical controls implemented under the Montreal Protocol will – by 2010 - have delayed the onset of serious climate effects by a decade. The EPA works on several multinational environmental agreements to simultaneously protect the ozone layer and climate system, including working closely with the Department of State and other federal agencies, including OMB, Office of Science Technology and Policy, Council on Environmental Quality, USDA, the Food and Drug Administration (FDA), Department of Commerce, NOAA, and NASA.

The EPA works with other agencies, including the Office of the United States Trade Representative and the Department of Commerce, to analyze potential trade implications in stratospheric protection regulations that affect imports and exports. The EPA leads a task force with the Department of Justice (DOJ), Department of Homeland Security (DHS), Department of Treasury, and other agencies to curb the illegal importation of ozone-depleting substances (ODS). Illegal import of ODS has the potential to prevent the United States from meeting the goals of the Montreal Protocol to restore the ozone layer.

The EPA has continued discussions with DOD to assist in the effective transition from ODS and high-GWP substitutes to a suite of substitutes with lower global warming potential (GWPs).

The EPA works with USDA and the DOS to facilitate research, development, and adoption of alternatives to methyl bromide. The EPA collaborates with these agencies to prepare U.S. requests for critical use exemptions of methyl bromide. The EPA is providing input to USDA on

⁴ Guus J. M. Velders, Stephen O. Andersen, John S. Daniel, David W. Fahey, and Mack McFarland; *The Importance of the Montreal Protocol in Protecting Climate*; PNAS 2007 104:4814-4819; published online before print March 8, 2007; doi:10.1073/pnas.0610328104.

rulemakings for methyl bromide-related programs. The EPA also consults with USDA on domestic methyl bromide needs.

The EPA coordinates closely with DOS and FDA to ensure that sufficient supplies of chlorofluorocarbons (CFCs) are available for the production of life-saving metered-dose inhalers for the treatment of asthma and other lung diseases. This partnership between the EPA and FDA combines the critical goals of protecting public health and limiting damage to the stratospheric ozone layer.

The EPA coordinates with NASA and NOAA to monitor the state of the stratospheric ozone layer and to collect and analyze UV data, including science assessments that help the public understand what the world may have looked like without the Montreal Protocol and its amendments.⁵ The EPA works with NASA on assessing essential uses and other exemptions for critical rocket needs, as well as effects of direct emissions of high-speed aircraft flying in the stratosphere.

The EPA works with DOE on GreenChill⁶ and Responsible Appliance Disposal (RAD)⁷ efforts. The GreenChill Advanced Refrigeration Partnership is an EPA cooperative alliance with the supermarket industry and other stakeholders to promote advanced technologies, strategies, and practices that reduce refrigerant charges and emissions of ozone-depleting substances and greenhouse gases. The EPA's RAD Program is a partnership program that protects the ozone layer and reduces emissions of greenhouse gases through the recovery of ozone-depleting chemicals from old refrigerators, freezers, air conditioners, and dehumidifiers.

The EPA coordinates with the Small Business Administration (SBA) to ensure that proposed rules are developed in accordance with the Small Business Regulatory Flexibility Act.

Objective: Minimize Exposure to Radiation

The EPA works primarily with the Nuclear Regulatory Commission (NRC), DOE, and the DHS on multiple radiation protection issues. The EPA has ongoing planning and guidance discussions with DHS on Protective Action Guidance and general emergency response activities, including exercises responding to nuclear related incidents. As the regulator of DOE's Waste Isolation Pilot Plant (WIPP) facility, the EPA coordinates oversight activities with DOE to ensure the facility is operating in compliance with EPA regulations. The EPA is a member of the interagency Radiation Source Protection and Security Task Force, established in the Energy Policy Act to improve the security of domestic radioactive sources. The EPA also is a working member of the interagency Nuclear Government Coordinating Council (NGCC), which coordinates across government and the private sector on issues related to security, communications, and emergency management within the nuclear sector.

For emergency preparedness purposes, the EPA coordinates closely with other federal agencies through the Federal Radiological Preparedness Coordinating Committee and other coordinating

⁵ *The Ozone Layer: Ozone Depletion, Recovery in a Changing Climate, and the "World Avoided;"* Findings and Summary of the U.S. Climate Change Science Program Synthesis and Assessment Product 2.4; November 2008.

⁶ For more information, see: www.epa.gov/greenchill.

⁷ For more information, see: www.epa.gov/ozone/partnerships/rad.

bodies. The EPA participates in planning and implementing table-top and field exercises including radiological anti-terrorism activities, with the NRC, DOE, DOD, HHS, and DHS.

The EPA works closely with other federal agencies when developing radiation policy guidance under its Federal Guidance authority. This authority was transferred to the EPA from the Federal Radiation Council in 1970 and tasks the Administrator with making radiation protection recommendations to the President. When signed by the President, Federal Guidance recommendations are addressed to all federal agencies and are published in the *Federal Register*. Risk managers at all levels of government use this information to assess health risks from radiation exposure and to determine appropriate levels for clean-up of radioactively contaminated sites. The EPA's radiation science is widely relied upon and is the objective foundation for the EPA, other federal agencies, and states to develop radiation risk management policy, standards, and guidance.

The EPA is a charter member and co-chairs the Interagency Steering Committee on Radiation Standards (ISCORS). ISCORS was created at the direction of Congress. Through quarterly meetings and the activities of its six subcommittees, member agencies are kept informed of cross-cutting issues related to radiation protection, radioactive waste management, and emergency preparedness and response. ISCORS also helps coordinate U.S. responses to radiation-related issues internationally.

Promoting international assistance, the EPA serves as an expert member of the International Atomic Energy Agency's (IAEA) Environmental Modeling for Radiation Safety, Naturally-Occurring Radioactive Materials Working Group. Additionally, the EPA remains an active contributor to the OECD's Nuclear Energy Agency (NEA). The EPA serves on both the NEA Radioactive Waste Management Committee (RWMC) and the Committee on Radiation Protection and Public Health (CRPPH). Through the RWMC, the EPA is able to exchange information with other NEA member countries on the management and disposal of high-level and transuranic waste. Through participation on the CRPPH and its working groups, the EPA has been successful in bringing a U.S. perspective to international radiation protection policy.

Goal 2- Protecting America's Waters

Objective: Protect Human Health

Collaboration with Public and Private Partners on Critical Water Infrastructure Protection

The EPA coordinates with other federal agencies, primarily Department of Homeland Security (DHS), Centers for Disease Control (CDC), Food and Drug Administration (FDA), and Department of Defense (DOD), on biological, chemical, and radiological contaminants of high concern, and how to detect and respond to their presence in drinking water and wastewater systems. A close linkage with the Federal Bureau of Investigation and the Intelligence Analysis Directorate in DHS, particularly with respect to ensuring the timely dissemination of threat information through existing communication networks, will be continued. The agency is strengthening its working relationships with the Water Research Foundation, the Water Environment Research Foundation, and other research institutions to increase our knowledge on

technologies to detect contaminants, monitoring protocols and techniques, and treatment effectiveness.

The EPA will continue to work with the U.S. Army Corps of Engineers (ACE) and the Federal Emergency Management Agency (FEMA) to refine coordination processes among federal partners engaged in providing emergency response support to the water sector. These efforts will include refining existing standard operating procedures, participating in cross-agency training opportunities, and planning multi-stakeholder water sector emergency response exercises. EPA will be determining how ACE, FEMA, and the EPA are to clarify their roles and responsibilities under the National Disaster Recovery Framework. In addition, EPA will continue to work with FEMA and the ACE, as well as other agencies, on the Federal Interagency Floodplain Management Task Force with regard to water resources and floodplain management.

The President issued Executive Order 13636 on Improving Critical Infrastructure Cybersecurity on February 12, 2013, directing the EPA to coordinate with DHS and the Department of Commerce in developing implementation guidance on cybersecurity practices for water systems. The EPA intends to harness the extensive cybersecurity capabilities of DHS in carrying out its responsibilities under this Presidential mandate.

Climate Change

The EPA has developed the Climate Ready Water Utilities initiative to provide practical tools and training that enable water systems to integrate climate change considerations into long-range planning. The EPA relies heavily upon other federal agencies for the data that populate these tools including climate and extreme weather data from the National Oceanic and Atmospheric Administration, climate projections from the U.S. Global Climate Research Program, and flood data from FEMA. The EPA's Climate Ready Estuaries Initiative will continue to inform the USACE strategy to use natural and nature-based features for hazard reduction, to include providing feedback on the North Atlantic Coast Comprehensive Study. The EPA will continue to leverage the research and expertise from NOAA, Interior, Navy, FEMA and other federal agencies in developing climate and extreme event products for water systems and supporting coastal communities for climate change adaptation.

Geologic Sequestration

The EPA coordinates with federal agencies to ensure safe and effective implementation of regulations to protect underground sources of drinking water during geologic sequestration activities, as well as plan and obtain research-related data and coordinate regulatory activities. Specifically, the EPA coordinates with the Department of Energy, the Department of the Interior's Geological Survey, and the Internal Revenue Service to ensure that Safe Drinking Water Act regulations for geologic sequestration sites are appropriately coordinated with efforts to deploy projects, map geologic sequestration capacity, provide tax incentives for CO₂ sequestration, and manage the movement of CO₂ from capture facilities to geologic sequestration sites.

Collaboration with U.S. Geological Survey

The EPA and U.S. Geological Survey have established an Interagency Agreement to coordinate activities and information exchange in the areas of unregulated contaminants occurrence, the environmental relationships affecting contaminant occurrence, protection area delineation methodology, and analytical methods. This collaborative effort has improved the quality of information to support risk management decision-making at all levels of government, generated valuable new data and eliminated potential redundancies.

Sustainable Rural Drinking and Wastewater Systems

In 2011, the EPA and U.S. Department of Agriculture-RD-RUS signed a new memorandum of agreement (MOA) - *Promoting Sustainable Rural Water and Wastewater Systems*. The EPA and U.S. Department of Agriculture have agreed to work together to increase the sustainability of rural drinking water and wastewater systems to ensure the protection of public health, water quality, and sustainable communities. The MOA addresses the following four areas: 1) Sustainability of Rural Communities - promote asset management planning, water and energy efficiency practices, and other sustainable utility management practices; 2) System Partnerships – educate and encourage communities and utilities that lack technical, managerial and financial capacity to seek partnership opportunities that can lead to increased compliance and reduced costs; 3) Water Sector Workforce - work together to promote careers in the water sector to attract a new generation of water professionals to rural systems; and 4) Compliance of Small Rural Public Water and Wastewater Systems with Drinking Water and Clean Water Regulations - partner and provide timely regulation training to water and wastewater systems in rural areas. In addition, the two agencies will work to facilitate coordinated funding for infrastructure projects that aid in the compliance of national drinking water and clean water regulations. In FY 2016 the EPA will further formalize its partnership with USDA to augment coordination of technical and financial assistance and strongly encourage states to coordinate and partner with USDA at more local levels.

National Water Sector Workforce Development: Department of Veterans Affairs

In 2012, the EPA and the Department of Veterans Affairs (VA) Vocational Rehabilitation and Employment (VR&E) Service signed a new memorandum of understanding to jointly promote activities that will help advance and improve employment opportunities for Veterans with disabilities while supporting the development of a trained and competent workforce for the Water Sector. Key objectives of this collaborative effort are to: 1) educate those involved with transitioning veterans to civilian careers about the water and wastewater industries; 2) promote Water Sector career opportunities to veterans; 3) educate utilities about Veterans Affairs programs and connect them with veterans; and 4) promote state program collaboration (particularly operator certification programs) with local Veterans Affairs counselors.

Tribal Access Coordination

The EPA, the Department of Agriculture, the Department of Housing and Urban Development, the Department of Health and Human Services, the Indian Health Service and the Department of the Interior are joining forces to renew their commitment to work together to maintain and

improve coordination in delivering water and wastewater infrastructure services and financial assistance to American Indian and Alaska Native communities. The agencies will continue to work together to increase the number of American Indian and Alaska Native homes provided access to safe drinking water. A memorandum of understanding signed by the Agencies will remain in effect for the next eight years. In 2003, the EPA and its federal partners in the Department of Agriculture, Department of Housing and Urban Development, Department of Health and Human Services, and Department of the Interior set a very ambitious goal to reduce the number of homes without access to safe drinking water. This goal remains ambitious due to the logistical challenges, capital and operation, and maintenance costs involved in providing access. The EPA is working with its federal partners to coordinate spending and address some of the challenges to access on Tribal lands and expects to make measureable progress on the access issue.

Source Water Protection

The EPA is coordinating with U.S. Department of Agriculture (Natural Resource Conservation Service and Forest Service) and U.S. Geological Survey to support state and local implementation of source water protection actions. In addition, the EPA works with U.S. Geological Survey on coordinating mapping of source water areas on a national scale with the National Hydrography Database. The EPA is also working with the Department of Transportation (DOT) to incorporate their gas transmission and hazardous liquid pipeline data into the EPA's source water protection GIS mapping application, and to share with DOT, the EPA's source water protection area data for inclusion in their Ecological Unusually Sensitive Area GIS layer for water quality protection purposes. In addition, the EPA coordinates with the Homeland Security Infrastructure Program (HSIP) of the National Geospatial-Intelligence Agency (NGA) to integrate their data on national and defense-critical infrastructure into source water protection analyses such as identifying potential contributors to harmful algal blooms and chemical spill response.

Data Availability, Outreach, and Technical Assistance

The EPA coordinates with U.S. Geological Survey, U.S. Department of Agriculture (Forest Service, Natural Resources Conservation Service), Cooperative State Research, Education, and Extension Service, Rural Utilities Service, Centers for Disease Control, Department of Transportation, Department of Defense, Department of Energy, Department of the Interior (National Park Service and Bureau of Indian Affairs, Land Management, and Reclamation), Department of Health and Human Services (Indian Health Service) and the Tennessee Valley Authority to make data more available to states and the public. In addition, the EPA has collaborated with the other federal agencies, states, and industry associations to establish a National Ground Water Monitoring Network with States to provide a fuller set of ground water data nationally through a single portal. Data will help to address national and regional issues related to water use, climate change and adaptation, and food and energy production. The USGS created the portal and six states have made data available in the pilot demonstration.

Collaboration with the Department of Energy and US Geologic Survey on Induced Seismicity

The EPA is collaborating with DOE and USGS in a federal interagency research effort to address the highest priority challenges associated with development of unconventional oil and gas resources. One of the seven topic areas of research is induced seismicity. The goal of this topic area is to better understand the potential risks of induced seismicity and its causes and effects throughout the unconventional oil and gas life cycle. As such, the EPA is working with DOE and USGS to identify research that will be of benefit to EPA and state Underground Injection Control Program activities. Some of the research that has begun looks at the potential for induced seismicity in geologic sequestration activities.

Collaboration with the Food and Drug Administration

The EPA and Food and Drug Administration are updating a Memorandum of Understanding (MOU) first established in 1978 to coordinate the authorities and programs of the two agencies with respect to oversight of drinking water on interstate conveyance carriers (e.g., aircraft, trains). The updates to the MOU are in response to the EPA's Aircraft Drinking Water Rule (ADWR) promulgated on October 19, 2009. Coordination will include sharing information on sample results indicating microbial contamination, inspections and enforcement actions; working together when water quality events occur that could impact the quality of water boarded onto aircraft; and other activities to ensure that a safe and reliable supply of drinking water is provided to passengers and crew.

Collaboration with the Centers for Disease Control and Prevention (CDC)

EPA continues to collaborate with CDC and States to develop a document that characterizes the current knowledge of treatment technologies to control *Legionella* in building drinking water systems and provides an overview of the potential regulatory implications related to the use of such technologies.

EPA is reviewing information related to fluoride in drinking water as part of the Third Six-Year Review of existing national primary drinking water regulations. EPA continues to coordinate and support CDC by reviewing their online training for water fluoridation.

Objective: Protect and Restore Watersheds and Aquatic Ecosystems

Watersheds

Protecting and restoring watersheds will depend largely on the direct involvement of many federal agencies and state, Tribal, and local governments who manage the multitude of programs necessary to address water quality on a watershed basis. Federal agency involvement will include U.S. Department of Agriculture (Natural Resources Conservation Service, Forest Service Agency, and Agriculture Research Service), Department of the Interior (Bureau of Land Management, Office of Surface Mining, U.S. Geological Survey, U.S. Fish and Wildlife Service, and the Bureau of Indian Affairs), National Oceanic and Atmospheric Administration, Department of Transportation, and Department of Defense (Navy and US Army Corps of

Engineers). At the state level, agencies involved in watershed management typically include departments of natural resources or the environment, public health agencies, and forestry and recreation agencies. Locally, numerous agencies are involved, including regional planning entities such as councils of governments, as well as local departments of environment, health, and recreation who frequently have strong interests in watershed projects.

National Pollutant Discharge Elimination System (NPDES) Program

Since inception of the NPDES program under Section 402 of the Clean Water Act, the EPA and the authorized states have developed expanded relationships with various federal agencies to implement pollution controls for point sources. The EPA works closely with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service on consultation for protection of endangered species through a Memorandum of Agreement. The EPA works with the Advisory Council on Historic Preservation on National Historic Preservation Act implementation. The EPA and the states rely on monitoring data from U.S. Geological Survey to help confirm pollution control decisions. The agency also works closely with the Small Business Administration and the Office of Management and Budget to ensure that regulatory programs are fair and reasonable. The agency coordinates with NOAA on efforts to ensure that NPDES programs support coastal and national estuary efforts and with the Department of the Interior on mining issues. The agency also coordinates with the Federal Highway Administration to reduce the impacts of stormwater from roads.

Joint Strategy for Animal Feeding Operations

The agency is working closely with the U.S. Department of Agriculture to implement the Unified National Strategy for Animal Feeding Operations (AFO Strategy) finalized on March 9, 1999. The Strategy sets forth a framework of actions that U.S. Department of Agriculture and the EPA will take to minimize water quality and public health impacts from improperly managed animal wastes in a manner designed to preserve and enhance the long-term sustainability of livestock production. The EPA's recent revisions to the Concentrated Animal Feeding Operations Regulations (effluent guidelines and NPDES permit regulations) will be a key element of the EPA and U.S. Department of Agriculture's plan to address water pollution from CAFOs. The EPA and U.S. Department of Agriculture senior management meet routinely to ensure effective coordination across the two agencies.

Community Water Priorities/Urban Waters

In response to stakeholder feedback, the EPA has been working with senior executives from thirteen federal agencies since 2010 to implement the Urban Waters Federal Partnership, with support from the White House Council on Environmental Quality and the Domestic Policy Council. Agencies include:

- Department of the Interior
- Department of Agriculture
- Department of Commerce – National Oceanic and Atmospheric Administration (NOAA)
- Department of Commerce – Economic Development Administration

- Army Corps of Engineers
- Department of Transportation
- Department of Housing and Urban Development
- Department of Health and Human Services – Centers for Disease Control and Prevention
- Department of Health and Human Services – National Institute of Environmental Health Sciences
- Corporation for National and Community Service
- Department of Education
- Department of Energy
- Environmental Protection Agency
- Federal Emergency Management Agency

This partnership seeks to help communities – especially underserved communities – transform overlooked urban waters into treasured centerpieces and drivers of urban revival. The partnerships will advance urban waters goals of: empowering and supporting communities in revitalizing their urban waters and the surrounding land; helping communities establish and maintain safe and equitable public access to their urban waterways; and linking urban water restoration to other community priorities such as employment, education, economic revitalization, housing, transportation, health, safety, and quality of life. To meet these goals, the partnership is working in 18 locations nationwide and is leveraging member agencies' authorities, resources, expertise, and local support. At the 18 locations, urban waters partnerships have been or are being formed. These local partnerships implement policy actions and on-the-ground projects that integrate federal support with local stakeholders' actions in those communities. They also work to remove barriers to achieving local workplans consistent with national action principles. The Partnership will continue to support the Five-Star Urban Waters Restoration Program, a public-private partnership that leverages private funding to support local water quality projects.

Clean Water State Revolving Fund

The EPA's State Revolving Fund program, Department of Housing and Urban Development's Community Development Block Grant program, and the U.S. Department of Agriculture's Rural Development foster collaboration on jointly funded infrastructure projects through: (1) coordination of the funding cycles of the three federal agencies; (2) consolidation of plans of action (operating plans, intended use plans, strategic plans, etc.); and (3) preparation of one environmental review document, when possible, to satisfy the requirements of all participating federal agencies. A coordination group, at the federal level, has been formed to further these efforts and maintain lines of communication. In many states, coordination committees have been established with representatives from the three programs.

In implementation of the Indian set-aside grant program under Title VI of the Clean Water Act, the EPA works closely with the Indian Health Service to administer grant funds to the various Indian tribes, including determination of the priority ranking system for the various wastewater needs in Indian Country. The EPA and U.S. Department of Agriculture Rural Development partner to provide coordinated financial and technical assistance to tribes.

Federal Agency Partnerships on Impaired Waters Restoration Planning

The federal government owns about 30 percent of the land in the United States and administers over 90 percent of these public lands through four agencies: Forest Service, Fish and Wildlife Service, National Park Service, and Bureau of Land Management. In managing these extensive public lands, federal agencies have a substantial influence on the protection and restoration of many waters of the United States. Land management agencies' focus on water issues has increased significantly, with the Forest Service, Fish and Wildlife Service, and Bureau of Land Management all initiating new water quality and watershed protection efforts. The EPA has been conducting joint national assessments with these agencies to enhance watershed protection and quantify restoration needs on federal lands. The EPA's joint national assessments of Fish and Wildlife Service and Forest Service properties have already documented the extent and type of impaired waters within and near these agencies' lands, developed GIS databases, reported national summary statistics, and developed interactive reference products (on any scale, local to national), accessible to staff throughout the agencies. These assessments have already influenced the agencies in positive ways. The Forest Service and the Fish and Wildlife Service have performance measures that involve impaired waters. The Forest Service used their national assessment data to institute improvements in a national monitoring and Best Management Practices training program as well as develop a watershed condition framework for proactively implementing restoration on priority National Forest and Grassland watersheds. Also, under a Memorandum of Agreement between the EPA and Forest Service, numerous aquatic restoration projects are being carried out. The Fish and Wildlife Service is using their national assessment data to inform agency planning on water conservation, quality, and quantity monitoring and management in the National Wildlife Refuge System, and also is using the assessment in National Fish Hatcheries System planning and their Contaminants Program. The EPA assessments and datasets are making significant contributions to the government-wide National Fish Habitat Action Partnership national assessment of fish habitat condition and the restoration and protection efforts of 17 regional Fish Habitat Partnerships. Also, EPA has provided geospatial analysis from the agencies' atmospheric mercury deposition modeling to the National Park Service for each of the properties they manage. This analysis shows not only the amount of mercury falling onto a particular watershed but also allocates the deposition among major contributing U.S. and global sources.

Monitoring and Assessment of Nation's Waters

The EPA works with federal, state, and Tribal partners to strengthen water monitoring programs to support a range of management needs and to develop tools to improve how we manage and share water data and report environmental results. The EPA's Monitoring and Assessment Partnership is a forum for the EPA, states, tribes, and interstate organizations to collaborate on key program directions for assessing the condition of the nation's waters in a nationally consistent and representative manner. The EPA is co-chair, along with U.S. Geological Survey, of the National Water Quality Monitoring Council, a national forum for scientific discussion of strategies and technologies to improve water quality monitoring and data sharing. The council membership includes other federal agencies, state, and Tribal agencies, non-governmental organizations, academic institutions, and the private sector.

Under a Memorandum of Understanding, the EPA and the U.S. Geological Survey (USGS) developed and are now operating of the national Water Data Portal, a web portal serving data from the USGS and the EPA ambient water quality data warehouses in a common format through the internet. The EPA has an Interagency Agreement with the USGS for the development of NHDPlus version 2, which is complete for the lower 48 states. EPA also collaborates with USGS and National Oceanic and Atmospheric Administration, the National Park Service, U.S. Department of Agriculture, Fish and Wildlife Service and the Forest Service on implementation, analysis and/or on analysis and interpretation of the results of the national Aquatic Resource Surveys.

Nonpoint Source Pollution Controls

The EPA will continue to work closely with its federal partners to achieve our goals for reducing pollutant discharges from nonpoint sources, including reduction targets for sediments, nitrogen, and phosphorous. Most significantly, the EPA will continue to work with the U.S. Department of Agriculture, which has a key role in reducing pollutant loadings through its continued implementation of the Environmental Quality Incentives Program, Regional Conservation Partnerships Program, and other conservation programs. The EPA will continue its active collaboration with USDA in joint investments in priority watersheds to reduce nutrient pollution through closer coordination of the Section 319 program and the Environmental Quality Incentives Program. Specifically, the EPA will continue to collaborate with states and USDA to implement the National Water Quality Initiative, focusing EQIP conservation funds to improve water quality and assess progress in 174 small watersheds nationwide. The EPA also will continue to work closely with the Forest Service and Bureau of Land Management especially on the vast public lands that comprise 30 percent of all land in the United States. The EPA will work with these agencies, U.S. Geological Survey, and the states to document improvements in land management and water quality.

Marine Pollution Prevention

The EPA works closely with a number of federal agencies including the U.S. Coast Guard, U.S. Navy, U.S. Army Corps of Engineers, Department of State, National Oceanic and Atmospheric Administration, and others to prevent pollution from both land-based and ocean-based sources from entering the marine environment.

The EPA works with the U.S. Navy on the Uniform National Discharge Standards Rulemaking. Section 312(n) of the Clean Water Act requires the EPA and the Department of Defense to identify, evaluate, and establish discharge standards for certain discharges from vessels of armed forces.

The EPA works with the U.S. Coast Guard on the Clean Boating Act Rulemaking. Section 312(o) of the Clean Water Act requires the EPA to identify, evaluate, and establish management practices for discharges incidental to the normal operation of a recreational vessel. The EPA also works closely with the U.S. Coast Guard on addressing ballast water discharges.

The EPA will continue to work closely with U.S. Army Corps of Engineers on standards for permit review, as well as site selection/designation and monitoring related to dredged material management under the Clean Water Act and Marine Protection, Research, and Sanctuaries Act (MPRSA).

The EPA has entered into an Interagency Agreement (IA) in September 2012 with NOAA to support the EPA's ocean dumping monitoring program. The IA will help support the EPA's implementation of the MPRSA by enabling EPA scientists to conduct ocean dump site monitoring using NOAA vessels. In addition, the EPA is using contract vessels and, through an IA with ACE, ACE vessels to conduct ocean dump site monitoring. The EPA is also exploring the use of University-National Oceanographic Laboratory System vessels for future surveys.

In addition, the EPA works closely with a number of other federal agencies to prepare Reports to Congress as well as review reports from other agencies. For example, the EPA works with a number of federal agencies on the Interagency Marine Debris Coordinating Committee (IMDCC), which prepares periodic reports to Congress on the progress of marine debris prevention efforts per the Marine Debris Research, Prevention, and Reduction Act of 2006.

The EPA's work with the IMDCC also includes coordination on technical and non-regulatory policy issues relating to trash and debris prevention. For example, the EPA coordinates with NOAA on research agendas addressing ecological and possible human health effects of trash in aquatic ecosystems and with the Department of State on international initiatives to reduce marine trash.

The EPA also participates with other federal agencies (including: U.S. Coast Guard, U.S. Army Corps of Engineers, Department of State, U.S. Department of the Interior, National Oceanic and Atmospheric Administration, Department of Energy, and U.S. Navy) on a number of international forums on marine protection, including ocean dumping and pollution from vessels. The U.S. is a member of the U.S. Delegation to the Marine Environmental Protection Committee and develops international standards that address vessel-related transport of aquatic invasive species, harmful antifoulants and operational discharges from vessels. The EPA is Head of the U.S. Delegation for the London Convention and London Protocol (LC / LP) Scientific Groups and Alternate Head of the U.S. Delegation for the LC / LP Consultative Meeting of the Parties; the London Convention and Protocol are the international treaties for the dumping of waste and other matter at sea.

The EPA also works with Department of State, Department of the Interior, Department of State, and other federal agencies to support development of international guidance under the London Convention and London Protocol related to sub-seabed sequestration of carbon dioxide.

National Estuary Program

The National Estuary Program is comprised of 28 place-based watershed management organizations that work with partners to protect and restore the water quality and ecological integrity of estuaries of national significance. The NEPs are located along the Atlantic and Pacific coasts and the Caribbean (Puerto Rico). Each NEP implements a Comprehensive

Conservation Management Plan (CCMP) that identifies priority actions to address problems unique to the estuary, and adjacent watersheds, and the role NEP partners will play in implementing these actions. The long-term commitment, collaboration, and involvement of federal, state, regional, private and non-government partners contributes greatly to effective CCMP implementation. Federal partners include the EPA's Water Programs; the National Oceanic and Atmospheric Administration's National Estuarine Research Reserves, the Sea Grant Program, and Habitat Protection and Restoration Programs; the U.S. Fish and Wildlife Service's Coastal Program; and the U.S. Department of Agriculture's Natural Resource Conservation Service, and U.S. Forest Service. Other NEP partners include state natural resource and environmental protection agencies; municipal government planning agencies; regional planning agencies; universities; industry; and non-governmental organizations.

The EPA and National Oceanic and Atmospheric Administration are signatories on a Memorandum of Agreement to strengthen cooperation, communication, and coordination in a focused manner, including the sharing of resources, tools and information, to assist regional government entities, states, tribes, territories, and local governments in becoming sustainable and resilient coastal and waterfront communities by protecting healthy coastal ecosystems, restoring degraded coastal ecosystems, and adapting to climate change. Recent collaborative efforts include working with the National Estuary Programs and the coastal management community to: assess climate change vulnerabilities, develop and implement adaptation strategies, and engage and educate stakeholders. Technical guidance and direct technical assistance on climate change adaptation also is provided.

National Ocean Policy

The EPA will support implementation of Executive Order 13547 on Stewardship of the Ocean, Our Coasts, and the Great Lakes that establishes the Nation's first comprehensive national policy for stewardship of the ocean, U.S. coasts and the Great Lakes. The Executive Order strengthens ocean governance and coordination, establishes guiding principles for ocean management, and adopts a flexible framework for effective coastal and marine spatial planning. The EPA will co-lead interagency work on two of the nine Strategic Priorities: "Regional Ecosystem Protection and Restoration" with U.S. Army Corps of Engineers and "Water Quality and Sustainable Practices on Land" with U.S. Department of Agriculture.

Wetlands

The EPA, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, National Oceanic and Atmospheric Administration, U.S. Geological Survey, U.S. Department of Agriculture, and Federal Highway Administration currently coordinate on a range of wetlands activities. These activities include: studying and reporting on wetlands trends in the United States, diagnosing causes of coastal wetland loss, statistically surveying the condition of the nation's wetlands, and developing methods for better protecting wetland function. Coastal wetlands remain a focus area of current interagency wetlands collaboration. The agencies meet monthly and are conducting a series of coastal wetlands reviews to identify causes and prospective tools and approaches to address the 84,100 acre loss over five years in marine and estuarine wetlands that U.S. Fish and Wildlife Service documented in the 2011 "Status and Trends of Wetlands in the Conterminous

United States: 2004 to 2009” report. Additionally, the EPA and the U.S. Army Corps of Engineers work very closely together in implementing the wetlands regulatory program under Clean Water Act Section 404. Under the regulatory program, the agencies coordinate closely on overall implementation of the permitting decisions made annually under Section 404 of the Clean Water Act, through the headquarters offices as well as the ten EPA Regional Offices and 38 U.S. Army Corps of Engineers District Offices. The agencies also coordinate closely on policy development, litigation, and implementing the Executive Order on Infrastructure Permitting. The EPA and U.S. Army Corps of Engineers are committed to achieving the goal of no net loss of wetlands under the Clean Water Act Section 404 program.

Geographic Programs

The Administration has launched numerous cross-agency efforts to promote collaboration and coordination among agencies, which include a suite of large aquatic ecosystem restoration efforts. Three prominent examples for the EPA of cross-agency restoration efforts are the Great Lakes, the Chesapeake Bay, and the Gulf of Mexico. Working with its partners and stakeholders, the EPA has established special programs to protect and restore each of these unique natural resources.

The EPA’s ecosystem protection programs encompass a wide range of approaches that address specific at-risk regional areas and larger categories of threatened systems, such as urban waters, estuaries, and wetlands. Locally generated pollution, combined with pollution carried by rivers and streams and through air deposition, can accumulate in these ecosystems and degrade them over time. The EPA and its federal partners along with states, tribes, municipalities, and private parties, will continue efforts to restore the integrity of imperiled waters of the United States.

Great Lakes

The Interagency Task Force,⁸ created by Executive Order 13340, is charged with increasing and improving collaboration and integration among federal agencies involved in Great Lakes environmental activities. The Task Force provides overall guidance regarding the Initiative and coordinates restoration of the Great Lakes, focusing on outcomes such as, *e.g.*, cleaner water and sustainable fisheries. The EPA leads the Interagency Task Force.

The EPA led development of a FY 2014 – FY 2019 Great Lakes Restoration Initiative Action Plan (Action Plan) which targets the most significant environmental problems of the Great Lakes ecosystem. Members of the Interagency Task Force enter into interagency agreements to fund activities intended to achieve the goals, objectives, and targets in the Action Plan. This effort builds upon previous coordination and collaboration by the Great Lakes National Program Office pursuant to the mandate in Section 118 of the Clean Water Act to “coordinate action of the agency with the actions of other federal agencies and state and local authorities...” The Great Lakes National Program Office supports the Great Lakes Restoration Initiative, the Great Lakes Water Quality Agreement, and other efforts to improve the Great Lakes and, under the direction

⁸ The Interagency Task Force includes eleven agency and cabinet organizations: EPA; Department of State, DOI, USDA, Department of Commerce, Department of Housing and Urban Development, Department of Transportation, DHS, Army, Council on Environmental Quality, and Department of Health and Human Services.

of the Quality Agreement, and other efforts to improve the Great Lakes and, under the direction of the EPA's Great Lakes National Program Manager, is leading the implementation of Great Lakes restoration activities by the federal agencies and their partners. Coordinated activities to implement the Initiative include:

- jointly establishing funding priorities for ecosystem restoration;
- protecting the Great Lakes from invasive species, including Asian carp;
- coordinating habitat protection and restoration with states, tribes, USFWS, NOAA, USFS, and NRCS;
- coordinating development and implementation of Lakewide Action and Management Plans for each of the Great Lakes and for Remedial Action Plans for the 27 remaining U.S./binational Areas of Concern;
- coordinating programs and funding efforts to accelerate progress in delisting Areas of Concern and to reduce phosphorus runoff and effects in a targeted group of watersheds; and,
- coordinating state, federal, and provincial partners, both to implement monitoring programs and to utilize the results from that monitoring activity to manage environmental programs

Chesapeake Bay

The Chesapeake Bay Program is a voluntary partnership initiated in 1983 and now including the Chesapeake Bay watershed states (Delaware, Maryland, New York, Virginia, Pennsylvania and West Virginia), the District of Columbia, the Chesapeake Bay Commission, and the federal government. On June 16, 2014, Chesapeake Bay Program partners signed the Chesapeake Bay Watershed Agreement, which provides for the first time the Bay's headwater states (Delaware, New York, and West Virginia) with full partnership in the Bay program. The agreement establishes 10 goals and 31 outcomes for sustainable fisheries, water quality, vital habitats, climate change, toxic contaminants, land conservation, stewardship, environmental literacy, public access, and other areas consistent with the strategy prepared in accordance with Executive Order (EO) 13508 on Chesapeake Bay Protection and Restoration.⁹ The EPA and its partners are developing management strategies in FY 2015 to achieve the agreement's goals and outcomes and will be implementing those strategies in FY 2016.

The EPA represents the federal government on the partnership's Chesapeake Executive Council (EC), which oversees the policy direction of the Chesapeake Bay Program. In addition to the EPA Administrator, the EC consists of the governors of the Bay watershed states, the mayor of the District of Columbia, the chair of the Chesapeake Bay Commission, and the Secretary of Agriculture. EPA and representatives from other Federal agencies and departments participate at all levels of the partnership structure, including committees, goal implementation teams, and workgroups. Section 117 of the Clean Water Act directs the EPA to maintain an office and to work with the EC to coordinate activities of the partnership through implementation of the Chesapeake Bay Agreements.

⁹ The 2014 Chesapeake Bay Watershed Agreement is available at <http://www.chesapeakebay.net/chesapeakebaywatershedagreement/page>.

President Obama's May 2009 EO 13508 on Chesapeake Bay Protection and Restoration brought the federal agencies interested in the Bay and its watershed to a new level of interagency coordination and cooperation. The EO established the Federal Leadership Committee (FLC) for the Chesapeake Bay, which is chaired by the EPA and includes the U.S. Department of Agriculture, Department of Commerce, Department of Defense, Department of Homeland Security, Department of the Interior, and Department of Transportation. FLC members are Secretary and Administrator level executives. FLC members are represented in more regular meetings of the Federal Leadership Committee Designees, which includes Assistant Secretary and Assistant Administrator level executives. Development of deliverables under the EO is conducted by the Federal Office Directors' group. Working together, the FLC agencies released a coordinated implementation strategy on May 12, 2010.

The EO Strategy called for increased coordination between the FLC and the Chesapeake Bay Program partnership, seeking to produce the most efficient reporting mechanisms. In fiscal year 2016, the FLC will continue integrating the EO Action Plan with the management strategies in the new Agreement. The FLC also will continue integrating the progress reporting of the CBP partnership with the Progress Report called for in the EO into the management strategies, with the intention of eliminating duplicative reporting. FLC member agencies will also need to work together and with the Bay watershed jurisdictions to begin implementing the Chesapeake Bay Accountability and Recovery Act of 2014, which requires new financial reporting and evaluation of the program.

Moreover, office directors from the federal agencies represented by the FLC and those that are part of the Chesapeake Bay Program meet on a regular basis to coordinate federal activities on behalf of the FLC with those of the broader Chesapeake Bay Program partnership. This group includes representatives of:

- Environmental Protection Agency
- Department of Commerce, National Oceanic and Atmospheric Administration
- Department of the Interior, National Park Service
- Department of the Interior, U.S. Geological Survey
- Department of the Interior, U.S. Fish and Wildlife Service
- Department of Agriculture, U.S. Forest Service
- Department of Agriculture, Natural Resources Conservation Service
- Department of Agriculture, Farm Services Agency
- Department of Agriculture, Office of Environmental Markets
- Department of Defense, U.S. Navy
- Department of Defense, U.S. Army
- Department of Defense, U.S. Army Corps of Engineers
- Department of Transportation
- Department of Homeland Security, U.S. Coast Guard
- Other agencies, as deemed appropriate

The preservation and restoration of the Chesapeake Bay will only be achieved through the coordinated efforts of all of the Chesapeake Bay Program partners. Recognizing this need for coordination, partners work together through the program's governance and advisory

committees, goal implementation teams, and workgroups to collaborate, share information, set goals, implement projects, and track program progress. This commitment to interagency coordination and partnership is a hallmark of the Chesapeake Bay Program.

Gulf of Mexico

Established in 1988, the Gulf of Mexico Program is designed to assist the Gulf States and stakeholders in developing a regional, ecosystem-based framework for restoring and protecting the Gulf of Mexico through coordinated Gulf-wide as well as priority specific efforts. The Gulf States strategically identify the key environmental issues and work at the regional, state, and local level to define, recommend, and voluntarily implement the supporting solutions. To achieve the Program's environmental objectives, the partnership must target specific Federal, state, local, and private programs, processes, and financial authorities in order to leverage the resources needed to support state and community actions.

Founded on the threefold principles of partnership, science-based information, and citizen involvement, the Gulf Program joined the Great Lakes and Chesapeake Bay Programs as flagships of the nation's efforts to apply an adaptive management approach to large coastal freshwater and marine ecosystems. The mission of the Program is to facilitate collaborative actions to protect, maintain, and restore the health and productivity of the Gulf of Mexico in ways consistent with the economic well-being of the Region.

The 2010 *Deepwater Horizon* oil spill caused damage to the Gulf of Mexico's natural resources and deeply impacted state economies and communities that rely on the natural ecosystems. In an effort to help the region rebuild in the wake of the spill, Congress passed the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act of 2012 (RESTORE Act). The RESTORE Act also established the Gulf Coast Ecosystem Restoration Council (Council). The Council is tasked with developing and implementing a "Comprehensive Plan" to restore the ecosystem and the economy of the Gulf Coast region. The EPA, along with numerous other Federal agencies, is a non-voting member of the Council and provides technical and other in-kind support to the Council.

The Gulf Program provides significant leadership and coordination among state and local governments, the private sector, tribes, scientists, and citizens to align efforts that address the long decline of the Gulf Coast by restoring water quality, restoring and conserving habitat, addressing nutrient impacts, addressing sustainability and resilience of communities, and engaging the communities to understand their role in the vitality of their communities and overall quality of life.

Like any natural system that is persistently manipulated to meet the evolving demands of man's progress and prosperity, the Gulf of Mexico suffers from an extensive array of issues. The Gulf's challenges are complex and long standing, and correcting the problems requires sustained and consistent effort over time. The EPA Gulf of Mexico Program is working consistently with federal agency partners including;

- Department of the Interior – Fish and Wildlife Service, National Park Service and the U.S. Geological Survey;
- Department of Commerce – National Oceanic and Atmospheric Administration;
- Department of Defense, U.S. Navy
- Department of Defense, U.S. Army Corps of Engineers
- Department of Transportation
- Department of Homeland Security, U.S. Coast Guard
- U.S. Department of Agriculture; and
- National Aeronautics and Space Administration.

The extensive interagency coordination efforts are advancing sustainable restoration, enhancement, and conservation of critical Gulf of Mexico ecosystems.

San Francisco Bay Delta-Estuary

The Interim Federal Action Plan for the California Bay-Delta (2009) underscored the federal government’s commitment to protect and restore this critically important ecosystem – one that provides water to 25 million residents, sustains one of the world’s most productive agricultural regions, and one that once supported a fishery that contributed \$600 million in annual revenue to the California economy¹⁰. In 2012, EPA Region 9 issued the Bay Delta Action Plan and we are working with federal and state agencies in numerous forums to advance the improvement of water quality and the protection of aquatic life. These forums include the Bay Delta Water Quality Control Plan (WQCP) process convened by the State Water Board, and the Bay Delta Conservation Plan (BDCP) process convened by State Department of Water Resources in partnership with USBR, and the San Francisco Estuary Partnership. In addition to the EPA and U.S. Bureau of Reclamation, federal agencies involved in these processes include Department of the Interior, Fish and Wildlife Service, National Marine Fisheries Service-National Oceanic and Atmospheric Administration Fisheries Service, the U.S. Army Corps of Engineers, U.S. Department of Agriculture-Natural Resources Conservation Service, and U.S. Geological Survey.

Puget Sound Program

The Puget Sound Program works to protect and restore Puget Sound, which has been designated as an estuary of national significance under the Clean Water Act National Estuary Program. In addition to working with state agencies, Puget Sound tribes, the government of Canada, local governments, and non-profit organizations, the EPA Region 10 initiated and chairs the Puget Sound Federal Caucus.

The Puget Sound Federal Caucus is made up of fifteen federal agencies which have entered into a Memorandum of Understanding¹¹ to better integrate, organize, and focus federal efforts

¹⁰ http://californiafisheriesfund.org/reso_atlas.html

California fisheries are valuable assets, in both monetary and intrinsic terms. While fisheries now account for only about 2 % of California’s ocean economy, landings were once over 500,000 metric tons per year, valued at over \$600 million annually. Commercial fish landings declined dramatically; by 2007, they had dropped to 173,000 metric tons valued at \$117 million.

¹¹ http://www.epa.gov/pugetsound/pdf/pugetsound_federalcaucus_mou_13signators.pdf

surrounding Puget Sound protection and restoration. Through the Caucus, the EPA and other member agencies are aligning resources and strengthening federal coordination on Puget Sound habitat protection, research, recovery, resource management and outreach efforts. Through these coordinated actions, federal agencies can contribute significantly to the restoration and protection of Puget Sound.

The Federal Caucus is particularly engaged in addressing the ‘Treaty Rights at Risk’ concerns raised by Puget Sound Tribes. These tribes have asked the Council on Environmental Quality to intervene on their behalf with federal agencies in the Northwest to reverse the trends in habitat loss and protect their Treaty Rights to harvest salmon and shellfish. The Puget Sound Federal Caucus initiated work on this issue by developing a comprehensive, cross-agency assessment of federal authorities and existing and new actions directed toward the recovery of habitat. The Caucus also developed an initial action plan focusing on commitments to actions that would restore shorelines, floodplains, and water quality. The plan created a federal/Tribal Forum to address obstacles to watershed-specific salmon recovery plan implementation that are brought forward by individual tribes.

After receiving feedback from tribes, the caucus narrowed its focus to target specific issues of concern to them. Currently caucus agencies are focusing coordinated efforts on identifying and removing fish passage barriers on federal and adjacent lands, addressing regulatory regimes surrounding shoreline armoring, and developing coordinated investment strategies to achieve multiple benefits in key floodplain and riparian environments. Agencies also continue to address issues raised by tribes through specific requests for federal/Tribal fora.

The federal agencies that participate in the Puget Sound Federal Caucus are:

- Federal Highway Administration
- Federal Transit Administration
- National Oceanic and Atmospheric Administration
- National Park Service
- National Resource Conservation Service
- Navy Region Northwest
- Joint Base Lewis-McChord U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Geological Survey
- U.S. Forest Service
- Federal Emergency Management Agency
- Bureau of Indian Affairs

Lake Champlain

Lake Champlain was designated as a resource of national significance by the Lake Champlain Special Designation Act (Public Law 101-596) that was signed into law on November 5, 1990, (amended in 2002). A management plan for the watershed, “Opportunities for Action,” (revised

2010) was developed to achieve the goal of the Act: to bring together people with diverse interests in the lake to create a comprehensive pollution prevention, control, and restoration plan for protecting the future of the Lake Champlain Basin. The EPA's efforts to protect Lake Champlain support the successful interstate, interagency, and international partnerships undertaking the implementation of the Plan. Federal partners include:

- Army Corps of Engineers
- Federal Emergency Management System
- Federal Energy Regulatory Commission
- National Oceanic and Atmospheric Administration/Sea Grant
- National Park Service
- U.S. Department of Agricultural/Natural Resources Conservation Service
- U.S. Environmental Protection Agency (Regions 1 and 2)
- U.S. Fish and Wildlife Service
- U.S. Forest Service – Green Mountain National Forest
- U.S. Geological Survey
- U.S. State Department
- International Joint Commission

Long Island Sound

The EPA supports the protection and restoration of Long Island Sound through its Long Island Sound Office, established under Section 119 of the Clean Water Act, as amended. The EPA assists the states in implementing the Sound's 1994 Comprehensive Conservation and Management Plan (CCMP). The EPA and the States of Connecticut and New York work in partnership with regional water pollution control agencies, scientific researchers, user groups, environmental organizations, industry, and other interested organizations and individuals to restore and protect the Sound and its critical ecosystems. In addition to the stakeholders listed, federal partners include the National Oceanic and Atmospheric Administration's National Marine Fisheries Service, the Department of the Interior's Fish and Wildlife Service the U.S. Geological Survey, the Natural Resources Conservation Service and the U.S. Army Corps of Engineers. These Federal partners have ongoing legislative and regulatory authorities and responsibilities for the protection and restoration of Long Island Sound and its physical and biological resources.

Research

While EPA is the federal agency mandated to ensure safe drinking water, other federal and non-federal entities are conducting research that complements EPA's research priority contaminants in drinking water. For example, the CDC and NIEHS conduct health effects and exposure research. FDA also performs research on children's risks.

Many of these research activities are being conducted in collaboration with EPA scientists. The private sector, particularly the water treatment industry, is conducting research in such areas as analytical methods, treatment technologies, and the development and maintenance of water resources. Cooperative research efforts have been ongoing with the American Water Works

Association, Water Research Foundation and other stakeholders to coordinate drinking water research. EPA also is working with USGS to evaluate performance of newly developed methods for measuring microbes in potential drinking water sources.

The EPA has developed joint research initiatives with NOAA and USGS for linking monitoring data and field study information with available toxicity data and assessment models for developing sediment criteria.

In coordination with federal partners DOE and USGS, the EPA will study potential impacts of hydraulic fracturing on air, water quality, water resources, ecosystems, and health. This research will assist decision makers (federal, state, and local; the industry and energy sectors, and the public) in making environmentally responsible decisions that ensure sustainable approaches to oil and natural gas extraction.

Goal 3-Cleaning Up Our Communities

Objective: Promote Sustainable and Livable Communities

Brownfields

The EPA's Brownfields and Land Revitalization Programs are key participants in the HUD-DOT-EPA partnership promoting livability and sustainable development. The EPA Brownfields program also is partnering with the Department of Labor and NIEHS to support environmental workforce development and fund job training and placement programs in brownfield communities. The Brownfields and Land Revitalization programs are working with USDA, HHS, and ATSDR to identify ways in which federal programs can increase food access in all communities and ensure access to quality health care. Improved access to healthy food and health care services can catalyze redevelopment that contribute to healthier and more sustainable communities. The Brownfields and Land Revitalization programs also are partnering with the National Park Service and its River and Trails Program to support Groundwork USA and individual Groundwork teams in their efforts to engage youth in community revitalization. The EPA continues to lead the Brownfields Federal Partnership, which includes more than 20 federal agencies dedicated to the cleanup and redevelopment of brownfields properties. Partner agencies work together to prevent, assess, safely clean up, and redevelop brownfields.

Sustainable Communities

In June 2009, the EPA, the U.S. Department of Transportation (DOT), and the U.S. Department of Housing and Urban Development (HUD) formed the Partnership for Sustainable Communities to help protect the environment by providing communities with more options for public transportation and better access to green and affordable housing. In FY 2016, the EPA, HUD, and DOT will work to align investments, grant criteria, and planning requirements to better support community smart growth and sustainable design efforts. The EPA will also work with the U.S. Department of Agriculture on sustainable communities' approaches in rural communities, towns and cities. Work with the Partnership and other agencies like USDA, NOAA, FEMA, and others, strengthens coordination and ensures efficient use of federal funds.

The EPA also will work to make our resources and those from other federal agencies easier for communities to understand and access.

The EPA will continue work with other federal agencies whose decisions, rules, investments and policies influence where and how development occurs including working with the General Services Administration (GSA) to assist in the development and inclusion of metrics into GSA tools for evaluating lease opportunities according to each buildings level of transit access and proximity to walkable destinations. Additionally, the EPA and GSA will partner to provide technical assistance to communities to integrate the siting of new federal facilities or reuse of existing facilities into neighborhood wide efforts to improve community sustainability.

The EPA will continue to provide support to other federal agencies, such as the U.S. Department of Agriculture, and Appalachian Regional Commission, for activities including jointly delivering technical assistance to rural Appalachian communities and proposing sustainability language to include in grant solicitations and other guidance documents. This assistance helps these agencies protect the environment through their community development programs, policies, regulations, and resources, while meeting their core agency objectives. The EPA will seek to extend this work to the Delta Regional Authority and other agencies working in rural America. The EPA will continue to collaborate with the National Oceanic and Atmospheric Administration and the Federal Emergency Management Agency to expand efforts to deliver targeted assistance to communities recovering from natural disasters and pursuing climate change adaptation planning

The EPA also co-sponsors the Governor's Institute on Community Design with HUD and DOT. The institute works with governors and their cabinets to improve environmental and public health outcomes of community development.

Environmental Justice

The EPA will continue its work in partnership with other federal agencies to address the environmental and public health issues facing communities with environmental justice concerns. The agency will continue its efforts to work collaboratively and constructively with all levels of government, and throughout the public and private sectors. The issues range from lead exposure, asthma, safe drinking water and sanitation systems to hazardous waste clean-up, renewable energy/wind power development, and sustainable environmentally-sound economies. The EPA and its federal partners are utilizing EPA's collaborative problem-solving model, based on the experiences of federal collaborative partnerships, to improve the federal government's effectiveness in addressing the environmental and public health concerns facing communities. As the lead agency for environmental justice pursuant to Executive Order 12898 on Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, the EPA shares its knowledge and experience and offers assistance to other federal agencies as they enhance their strategies to integrate environmental justice into their programs, policies, and activities.

Economically Distressed Communities

The EPA will continue to support the White House Council on Strong Cities, Strong Communities, where it has been a leader in setting the agenda and implementing strategies that

are being used to help economically distressed communities recover and grow in sustainable, economically resilient, and environmentally friendly ways. As part of the White House Council, the EPA has ensured that addressing environmental challenges are part of economic recovery. In particular, the EPA has brought expertise on the importance of downtown revitalization, the use of green infrastructure strategies, green demolition, and equitable development strategies to the work of the council. The EPA's influence in bringing the environment to the forefront of the work of the White House Council has impacted the work of HUD, DOT, Commerce, HHS, Homeland Security, the Small Business Administration, Justice, Labor, and many other agencies and departments. In 2015, the EPA will continue to play this important role.

Chemical Facility Safety & Security

On August 1, 2013, the White House issued Executive Order (EO) 13650 on Improving Chemical Facility Safety and Security, in response to the disaster in West, Texas. The Chemical Facility Safety and Security Working Group established by Executive Order 13650, released the status report entitled *Actions to Improve Chemical Facility Safety and Security – A Shared Commitment*¹² on June 6, 2014, summarizing the Working Group's progress, focusing on actions to date, findings and lessons learned, challenges, and short and long-term priority actions. The EPA has initiated work on several of the actions associated with the status report action plan to expand support for local communities. These efforts include initiation and development of tools and technical support to strengthen the state and local infrastructure of SERCs/TERCs and LEPCs/TEPCs and engage with key stakeholders to discuss options for modernizing regulations, guidance, and policy to enhance chemical safety at facilities and draft a proposed rule to address key options to further chemical facility safety under the Risk Management Program. In FY 2016, the EPA will continue to coordinate with the Department of Homeland Security (DHS), the Occupational Safety and Health Administration (OSHA), and other interagency partners on activities associated with EO 13650.

U.S.-Mexico Border

The Governments of Mexico and the United States agreed, in November 1993, to assist communities on both sides of the border in coordinating and carrying out environmental infrastructure projects. The agreement between Mexico and the United States furthers the goals of the North American Free Trade Agreement and the North American Agreement on Environmental Cooperation. To this purpose, the governments established two international institutions, the Border Environment Cooperation Commission (BECC) and the North American Development Bank (NADBank), which manages the Border Environment Infrastructure Fund (BEIF), to support the financing and construction of much needed environmental infrastructure.

The BECC, with headquarters in Ciudad Juarez, Chihuahua, Mexico, assists local communities and other sponsors in developing and implementing environmental infrastructure projects. The BECC also certifies projects as eligible for NADBank financing. The NADBank, with headquarters in San Antonio, Texas, is capitalized in equal shares by the United States and

¹² For more information, please go to: https://www.osha.gov/chemicalexecutiveorder/final_chemical_eo_status_report.pdf

Mexico. NADBank provides new financing to supplement existing sources of funds and foster the expanded participation of private capital.

A significant number of residents along the U.S.-Mexico border area are without basic services such as potable water and wastewater treatment and the problem has become progressively worse in the last few decades. Over the last several years, the EPA has continued to work with the U.S. and Mexican Sections of the International Boundary and Water Commission and Mexico's national water commission, Comisión Nacional del Agua (CONAGUA), to further efforts to improve drinking water and wastewater services to communities within 100 km on the U.S. and 300 km on the Mexico side of the U.S.-Mexico border. The U.S.-Mexico Border 2012 Program represents a successful joint effort between the U.S. and Mexican governments in working with the 10 Border States and local communities to improve the region's environmental health, consistent with the principles of sustainable development. Over the last several years, the EPA has continued to work with the U.S. and Mexican Sections of the International Boundary and Water Commission and Mexico's national water commission, Comisión Nacional del Agua (CONAGUA), to further efforts to improve drinking water and wastewater services to communities within 100 km on the U.S. and 300 km on the Mexico side of the U.S.-Mexico border.

Research

Research in ecosystems protection is coordinated government-wide through the Committee on Environment, Natural Resources, and Sustainability (CENRS). The EPA actively participates in the CENRS and all work is fully consistent with, and complementary to, other Committee member activities. EPA scientists staff two CENRS Subcommittees: the Subcommittee on Ecological Systems (SES) and the Subcommittee on Water Availability and Quality (SWAQ). The EPA has initiated discussions within the SES on the subject of ecosystem services and potential ERP collaborations are being explored with the U.S. Geological Service (USGS) and with USDA Forest Service. Within SWAQ, the ERP has contributed to an initiative for a comprehensive census of water availability and quality, including the use of Environmental Monitoring and Assessment Program methods and ongoing surveys as data sources. In addition, the EPA has taken a lead role with USGS in preparing a SWAQ document outlining new challenges for integrated management of water resources, including strategic needs for monitoring and modeling methods, and identifying water requirements needed to support the ecological integrity of aquatic ecosystems.

Consistent with the broad scope of the EPA's ecosystem research efforts, the EPA has had complementary and joint programs with FS, USGS, USDA, NOAA, BLM, USFS, NGOs, and many others specifically to minimize duplication, maximize scope, and maintain a real time information flow. For example, all of these organizations work together to produce the National Land Cover Data used by all landscape ecologists nationally. Each contributes funding, services and research to this uniquely successful effort.

The EPA expends substantial effort coordinating its research with other federal agencies, including work with DoD in its Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program, DOE, and its

Office of Health and Environmental Research. The EPA also conducts collaborative laboratory research with DoD, DOE, DOI (particularly the USGS), and NASA to improve characterization and risk management options for dealing with subsurface contamination.

The agency also is working with NIEHS, which manages a large basic research program focusing on Superfund issues, to advance fundamental Superfund research. The Agency for Toxic Substances and Disease Registry (ATSDR) also provides critical health-based information to assist the EPA in making effective cleanup decisions. The EPA works with these agencies on collaborative projects, information exchange, and identification of research issues and has a MOU with each agency. The EPA, Army Corps of Engineers, and Navy recently signed a MOU to increase collaboration and coordination in contaminated sediments research. Additionally, the Interstate Technology Regulatory Council (ITRC) has proved an effective forum for coordinating federal and state activities and for defining continuing research needs through its teams on topics including permeable reactive barriers, radionuclides, and Brownfields. The EPA has developed an MOU¹³ with several other agencies [DOE, DoD, NRC, USGS, NOAA, and USDA] for multimedia modeling research and development.

Other research efforts involving coordination include the unique controlled-spill field research facility designed in cooperation with the Bureau of Reclamation. Geophysical research experiments and development of software for subsurface characterization and detection of contaminants are being conducted with the USGS and DOE's Lawrence Berkeley National Laboratory.

The EPA is coordinating with DoD's SERDP in an ongoing partnership, especially in the areas of sustainability research and of incorporating materials lifecycle analysis into the manufacturing process for weapons and military equipment. The EPA will continue to collaborate with the Army as part of their Net Zero Initiative, to develop and demonstrate innovative waste technologies to accomplish the Army's goal of net zero energy, water, and waste by 2020. The EPA's People, Prosperity, and Planet (P3) student design competition for sustainability will partner with NASA, National Science Foundation (NSF), Office of the Federal Environmental Executive (OFEE), USAID, USDA, Council on Environmental Quality (CEQ), and Office of Science and Technology Policy (OSTP).

Several federal agencies sponsor research on variability and susceptibility in risks from exposure to environmental contaminants. The EPA collaborates with a number of the Institutes within the NIH and CDC. For example, NIEHS conducts multi-disciplinary biomedical research programs, prevention and intervention efforts, and communication strategies. The NIEHS program includes an effort to study the effects of chemicals, including pesticides and other toxics, on children. The EPA collaborates with NIEHS in supporting the Centers for Children's Environmental Health and Disease Prevention, which study whether and how environmental factors play a role in children's health and with the National Institute on Child Health and Human Development on the development and implementation of the National Children's Study.

¹³ For more information please go to: Interagency Steering Committee on Multimedia Environmental Models MOU, <http://www.iscmem.org/Memorandum.htm>

Objective: Preserve Land

Pollution prevention activities entail coordination with other federal departments and agencies. For example, the EPA coordinates with the General Services Administration (GSA) on the use of safer products for indoor painting and cleaning, with the Department of Defense (DoD) on the use of safer paving materials for parking lots, and with the Defense Logistics Agency on safer solvents. The program also works with the National Institute of Standards and Technology and other groups to develop standards for Environmental Management Systems.

The federal government is the single largest potential source for “green” procurement in the country, for office products as well as products for industrial use. The EPA works with the Office of Federal Environmental Executive and other federal agencies and departments in advancing the purchase and use of recycled-content and other “green” products. In particular, the agency is currently engaged with other organizations within the Executive Branch to foster compliance with Executive Order 13423 on Strengthening Federal Environmental, Energy, and Transportation Management, and in tracking and reporting purchases of products made with recycled contents, in promoting electronic stewardship, and achieving waste reduction and recycling goals.

In addition, the agency is currently engaged with the DoD, the Department of Education, the Department of Energy (DOE), the U.S. Postal Service, and other agencies to foster proper management of surplus electronics equipment, with a preference for reuse and recycling. With these agencies, and in cooperation with the electronics industry, the EPA and the Office of the Federal Environmental Executive launched the Federal Electronics Challenge which will lead to increased reuse and recycling of an array of computers and other electronics hardware used by civilian and military agencies. Many federal offices are partners in one of EPA’s Sustainable Materials Management challenges, the Federal Green Challenge, which reduces the government’s environmental impact in six areas: waste, purchasing, electronics, energy, water, and transportation. The EPA also collaborates with the USDA on the U.S. Food Waste Challenge, a food waste diversion program.

In addition to business, industry, and other non-governmental organizations, the EPA works with federal, state, Tribal, and local governments to encourage the proper management and reduced generation and safe recycling of hazardous wastes. The RCRA Waste Management program coordinates closely with federal agencies, primarily the DoD and DOE, which have many sites in the hazardous waste permitting universe. RCRA programs also coordinate with the Department of Commerce, the Department of Transportation, and the Department of State to ensure the safe movement of domestic and international shipments of hazardous waste. Partners in this effort include the Environmental Council of States and the Association of State and Territorial Solid Waste Management Officials. The EPA also is collaborating with DOT, the Transportation Security Agency (TSA), and the U.S. Postal Service on the development of the electronic hazardous waste manifest, or e-Manifest, system.

Objective: Restore Land

Superfund Remedial Program

The Superfund Remedial program coordinates with several other federal agencies, such as ATSDR and NIEHS, in providing numerous Superfund related services in order to accomplish the program's mission.

The U.S. Army Corps of Engineers substantially contributes to Superfund site cleanups by providing technical support for the design and construction of many fund-financed remediation projects through site-specific interagency agreements. This federal partner has the technical design and construction expertise and contracting capability needed to assist EPA regional Superfund programs in implementing several Superfund remedial action projects. This Agency also provides technical on-site support to Regions in the enforcement oversight of numerous construction projects performed by private Potentially Responsible Parties.

Superfund Federal Facilities Program

The Superfund Federal Facilities program coordinates with federal agencies, states, tribes, state associations, and others to implement its statutory responsibilities to ensure proper cleanup of federally contaminated land on the National Priorities List (NPL). The program provides technical and regulatory oversight at federal facilities to ensure human health and the environment are protected.

A Memorandum of Understanding was negotiated with DOD to continue the agency's oversight support through September 30, 2016 for the acceleration of cleanup and property transfer at specific Base Realignment and Closure (BRAC) installations affected by the first four rounds of BRAC. The FY 2016 request does not include support for BRAC-related services to the DoD at those facilities affected by the fifth round of BRAC in 2005.

To ensure the long-term protectiveness of remedies, the agency will continue monitoring, overseeing progress, and improving the quality and consistency of five-year reviews being conducted at federal sites where waste has been left in place and land use is restricted. Five-year reviews are required under Section 121(c) of CERCLA and the EPA's role is to concur or make its own independent protectiveness determination. The EPA has been working collaboratively with DoD, DOE, and Department of the Interior (DOI) through a Federal Workgroup to improve the technical quality, timeliness, and cost of the five-year review reports and to ensure that the community is aware of the protectiveness status. The workgroup continues to assess the use of best management practices and evaluate trend data to improve the five-year review process. In FY 2016, the EPA will review approximately 32 federal NPL five-year review reports in order to fulfill statutory requirements and to inform the public regarding the protectiveness of remedies at those NPL sites.

The Federal Facilities program continues to develop and implement innovative technologies, processes, and collaboration efforts. By working in concert with sister federal agencies, the EPA continues to promote the advancement of cleanup technologies, expansion of contaminated land

reuse to support renewable energy projects, and multiple initiatives to support sustainability. These projects not only help support the agency's goal to cleanup communities and advance sustainable development, but they also facilitate the introduction of innovative solutions to both the public and private sector.

Superfund Financial Responsibility Regulations

The EPA currently is developing regulations that will require facilities in the hardrock mining and mineral processing industry to provide appropriate financial assurance for response action liabilities, so that the taxpayers do not have to pay for cleanups at these sites. This effort will require close coordination with the DOI (Bureau of Land Management) and USDA (Forest Service) related to mining/mineral processing activities on federal lands, and with DoD and DOE regarding the other industrial facilities that will be potentially impacted.

Resource Conservation and Recovery Act

The RCRA Corrective Action program coordinates closely with other federal agencies, primarily the DoD and DOE, which have many sites in the corrective action universe. Encouraging federal facilities to meet the RCRA Corrective Action program's goals remains a top priority. The EPA also coordinates with other agencies, primarily DoD, on cleanup and disposal issues posed by polychlorinated biphenyls (PCBs), under authority of the Toxic Substances Control Act (TSCA).

Emergency Preparedness and Response

The EPA plays a major role in reducing the risks that accidental and intentional releases of harmful substances and oil pose to human health and the environment. The EPA implements the Emergency Preparedness program in coordination with the Department of Homeland Security (DHS) acting as the chair for the National Response Team and co-chair for each Regional Response Team. These teams, which have member participation from other key federal agencies, deliver federal assistance to state, local, and Tribal governments to plan for and respond to natural disasters and other major environmental incidents. This requires continuous coordination with many federal, state and local agencies. The agency participates with other federal agencies to develop national planning and implementation policies at the operational level.

The National Response Framework (NRF), under the direction of the DHS, provides for the delivery of federal assistance to states to help them deal with the consequences of terrorist events, acts of malfeasance, as well as natural and other significant disasters. The EPA maintains the lead responsibility for the NRF's Emergency Support Function #10 covering inland hazardous materials and petroleum releases and participates in the Federal Emergency Support Function Leaders Group which addresses NRF planning and implementation at the operational level.

The EPA coordinates its preparedness activities with DHS, FEMA, the Federal Bureau of Investigation, and other federal agencies, states, and local governments. The EPA will continue to clarify its roles and responsibilities to ensure that agency security programs are consistent with the national homeland security strategy.

The EPA also works with FEMA on hazard mitigation and recovery through a Memorandum of Agreement (MOA) that seeks to incorporate sustainable communities approaches into planning for and recovering from natural disasters including the effects of climate change. This MOA allows the EPA and FEMA to collaborate on policies, as well as with other agencies like NOAA, HUD, and DOT, to help communities become more resilient to natural disasters, the effects of climate change on communities, and mitigation strategies (to date the Office of Policy has worked in communities in Iowa, North Carolina, North Dakota, Rhode Island, Vermont, and others).

Oil Spills

Under the Oil Spill Program, the EPA works with other federal agencies such as U.S. Fish and Wildlife Service, the U.S. Coast Guard (USCG), NOAA, FEMA, DOI, DOT, DOE, and other federal agencies and states, as well as with local government authorities to develop Area Contingency Plans. The Department of Justice also provides assistance to agencies with judicial referrals when enforcement of violations becomes necessary. In FY 2016, the EPA will have an active interagency agreement with the USCG providing continued support for the National Response Center and oil spill response technical assistance. In addition the EPA and the USCG work in coordination to address oil spills nationwide.

Objective: Strengthen Human Health and the Environment in Indian Country

On June 26, 2013, President Obama issued Executive Order 13647, establishing the White House Council on Native American Affairs, as well as a national policy to ensure the Federal Government carries out its trust responsibilities in a coordinated and effective manner, engaging in a true and lasting government-to-government relationship with federally recognized tribes. The Council is chaired by the Department of the Interior Secretary, and consists of the heads of 31 executive departments, agencies, and offices, including the EPA Administrator. In this role, the Administrator will work through the Council to protect tribal lands, environments, and natural resources, and promote respect for tribal cultures.

The Administrator and the Interior Secretary established a subgroup under the Council to provide tribes with data and information, improve Federal collaboration, and assist with climate change adaptation and mitigation efforts. The Department of the Interior and Environmental Protection Agency are leading a subgroup on climate change under the White House Council on Native American Affairs, which will share data and information and coordinate Administration efforts to assist tribes in climate resilience and mitigation efforts. In 2014, the Department of the Interior's (DOI) Bureau of Indian Affairs launched a Federal-Tribal Climate Resilience Partnership and Technical Assistance Program that will help tribes prepare for climate change by developing and delivering adaptation training.

The EPA works under two important Tribal Infrastructure Memoranda of Understandings (MOU) amongst five federal agencies. The EPA, the Department of the Interior, Department of Health and Human Services, Department of Agriculture, and the Department of Housing and

Urban Development work as partners to improve infrastructure on Tribal lands and currently focus efforts on providing access to safe drinking water and basic wastewater facilities to tribes.

The first, or umbrella MOU, promotes coordination between federal Tribal infrastructure programs, including financial services, while allowing federal programs to retain their unique advantages. It is fully expected that the efficiencies and partnerships resulting from this collaboration will directly assist tribes with their infrastructure needs. Under the umbrella MOU, for the first time, five federal departments joined together and agreed to work across traditional program boundaries on Tribal infrastructure issues. The second MOU, addressing a specific infrastructure issue, was created under the umbrella authority and addresses the issue of access to safe drinking water and wastewater facilities on Tribal lands. Currently, the five federal agencies are working together to develop solutions for specific geographic areas of concern (Alaska, Southwest), engaging in coordination of ARRA funding, and promoting cross-agency efficiency. These activities are completed in coordination with federally recognized tribes.

For more information, please see <http://www.epa.gov/tribalportal/mous.htm>.

Consultation

The EPA continues to work closely with other federal agencies as well as the Domestic Policy Council to implement President Obama's directive regarding the Tribal consultation process. The President's November 5, 2009 Memorandum directs each executive department to develop a detailed plan to implement Executive Order (EO) 13175, "Consultation and Coordination with Indian Tribal Governments," issued by President Clinton in 2000. Under EO 13175, "all departments and agencies are charged with engaging in regular and meaningful consultation and collaboration with Tribal officials in the development of federal policies that have Tribal implications and are responsible for strengthening the government-to-government relationship between the United States and Indian tribes."

On May 4, 2011, the EPA released its final policy on consultation and coordination with Indian tribes. EPA is among the first of the federal agencies to finalize its consultation policy in response to President Obama's first tribal leaders summit in November 2009, and the issuance of Executive Order 13175 to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications.

AmeriCorps Partnership

The EPA recently partnered with the Corporation for National and Community Service to leverage AmeriCorps grant resources, announcing that Indian General Assistance Program (GAP) grants may be used as match funding for tribally-sponsored AmeriCorps programs.

The EPA continues to partner with AmeriCorps to support tribal communities. Often, tribal governments face financial challenges that prevent them from providing the required matched funding. AmeriCorps' members help address this key challenge facing Native American communities, including education, disaster response and environmental preservation. The EPA manages GAP to assist eligible tribal governments in building environmental programs needed to

regulate and manage their environments. The combination of AmeriCorps grants and EPA program funding, such as GAP, enable tribal governments to bring in energetic, committed people to help build an environmental program.

Goal 4 – Ensuring the Safety of Chemicals and Preventing Pollution

Objective: Chemical and Pesticide Risks

The EPA coordinates with and uses information from many federal departments and agencies, as well as many state D/As and international organizations, in our efforts to protect the safety of America's health and environment from unacceptable risks from pesticides and toxic chemicals. EPA's activities include collaborations with individual government D/As on specific technical or regulatory issues and more broadly with groups of D/As or organizations on a range of issues. Many of these activities are described below.

For implementing the EPA's responsibilities for regulating the sale and use of pesticides, the agency uses a range of outreach and coordination approaches for pesticide users, agencies implementing various pesticide programs and projects, and the general public. Outreach and coordination activities through our field programs are essential to effective implementation of regulatory decisions for the sale and use of pesticides. In addition, coordination activities protect workers and the environment, including endangered species, provide training for pesticide applicators, promote integrated pest management and environmental stewardship, support for compliance through EPA's Regional programs and those of the states and tribes and promote international cooperation.

The EPA's coordination with the U.S. Department of Agriculture (USDA) and state lead agencies for pesticides provides impetus to the implementation of the Certification and Training program for pesticide applicators. States also provide essential activities in developing and implementing Worker Protection program and are involved in numerous special projects and investigations, including emergency response efforts. The EPA's regional offices provide technical guidance and assistance to the states and tribes in the implementation of all pesticide program activities.

In addition to the training that the EPA provides to farm workers and applicators of restricted use pesticides applicators, the EPA works with the USDA's Cooperative Extension Service designing and providing specialized training for various groups. Such training includes instructing private applicators on the proper use of personal protective equipment and application equipment calibration, handling spill and injury situations, farm family safety, preventing pesticide spray drift, and pesticide and container disposal. Other specialized training is provided to public works employees on grounds maintenance, to pesticide control operators on proper insect identification, and on weed control for agribusiness.

The EPA relies on data from HHS and USDA to supplement data from the pesticide industry to help the agency assess the potential risks of pesticides in the diets of adults and children. The EPA relies on pesticide residue data in food commodities, in part generated by USDA in its Pesticide Data Program to improve its dietary risk assessment of pesticides. These data and

those from other sources, including FDA, help EPA achieve its mission of protecting human health. These data sources serve as a showcase for federal D/A cooperation on pesticide and food safety issues. Other collaborative efforts include developing and validating methods to analyze domestic and imported food samples for chemicals of concern, such as organophosphates, carcinogens, and neurotoxins. The agency also coordinates with FDA's National Toxicology Program and HHS' Center for Disease Control and Prevention, Agency for Toxic Substances and Disease Registry and the National Institute for Environmental Health Sciences on a variety of technical and communication issues.

While the EPA is responsible for making pesticide registration and tolerance decisions, the agency relies on other federal and state D/As to carry out most of the pesticide enforcement activities. Enforcement of the pesticide distribution and use provisions of FIFRA are primarily carried out by the states' lead agencies for pesticide regulation, while the FDA enforces tolerances for pesticide residues in most foods and the USDA enforces tolerances for meat, poultry, and some egg products. These joint efforts protect Americans from unhealthy pesticide residue levels.

In addition to a focus on protecting humans from pesticide risks, EPA is very engaged with other D/As on many important environmental issues. Two of these issues are protection of threatened and endangered species and pollinators. The agency collaborates extensively with the Department of Interior's Fish and Wildlife Services and the Department of Commerce/National Oceanic and Atmospheric Administration/National Marine Fisheries Service on risk assessment methods for identifying species at risk from pesticide use and approaches to mitigate unacceptable risks. The EPA is also working with USDA, state agencies and other entities to address risks to honey bees and other pollinators that are very important to production of food crops.

The President established the Pollinator Health Task Force in June of 2014 to expand Federal efforts and take new steps to reverse pollinator losses and help restore populations to healthy levels. EPA is co-chairing the Task Force with USDA to develop a National Pollinator Health Strategy and Action Plans for research, education, habitat, and public/private partnerships for pollinator health. The Task Force includes members from Department of State, DOD, DOI, HUD, DOT, DOE, Department of Education, CEQ, Domestic Policy Council, GSA, NSF, OMB, National Security Council Staff, and OSTP. The Task Force will publish the strategy and action plans in the spring of 2015 and will continue interagency pollinator work into the future.

The EPA's objective is to promote improved health and environmental protection domestically and when feasible in other countries. The success of this objective is dependent on successful coordination not only with other countries, but also with various international organizations such as the North American Commission on Environmental Cooperation (CEC), the Organisation for Economic Cooperation and Development (OECD), the United Nations Environment Program (UNEP), the World Health Organization and the Codex Alimentarius Commission.

The EPA cooperates with governments in other countries bilaterally or through treaties, such as the North American Free Trade Agreement (NAFTA), or other formal agreements, such as the US/Canada Regulatory Cooperation Council. The EPA's cooperation with Canada and Mexico

through NAFTA and the RCC and many other fora, such as Persistent Organic Pollutants (POPs) and Prior Informed Consent, play an important role to coordinate policies, harmonize guidelines, share information, collaborate on regulatory decision-making, build other nations' capacity to reduce risks, develop strategies to deal with potentially high risk pesticides, improve capabilities of international trade, and develop greater confidence in the safety of the food supply and the environment.

The EPA has developed a strong network of government, private sector and non-governmental partners working to achieve reductions in global mercury use and emissions, particularly when adverse U.S. impacts would be likely. The EPA works closely with the Department of State in leading the technical and policy engagement for the United States in the Minamata Convention on Mercury, the EPA provided the impetus for UNEP's Global Mercury Partnership, and the agency continues to work with developing and other developed countries in the context of that program. In addition to the Department of State, the EPA collaborates closely with several federal agencies including DOE and USGS. As we prepare for implementation of the Minamata Convention, the EPA continues to support the Global Mercury Partnership and sharing of information through the Arctic Council on reducing releases mercury which disproportionately impact indigenous arctic communities.

The nexus of environmental protection and international trade has long been a priority for the EPA engagement. The EPA has played a key role in ensuring that trade-related activities sustain environmental protection since the 1972 Trade Act mandated interagency consultation by the U.S. Trade Representative (USTR) on trade policy issues. EPA is a member of the Trade Policy Staff Committee (TPSC) and the Trade Policy Review Group (TPRG), interagency mechanisms that are organized and coordinated by USTR to provide advice, guidance, and clearance to the USTR in the development of U.S. international trade and investment policy.

The World Health Organization recognizes air pollution as a major global health threat¹⁴, and vehicles are a significant source of this pollution. The EPA will continue its work in the Partnership for Clean Fuels and Vehicles (PCFV), a global partnership that has worked to reduce air pollution from the global fleet of on-road vehicles. In addition, the EPA will also continue to strengthen our activities in the Arctic by working with Alaska, Tribes, federal agencies, and the private sector to build international support for U.S. environmental policy objectives through the Arctic Council. These objectives cover a range of topics, including reducing emissions and exposure to mercury and short-lived climate pollutants - black carbon¹⁵, in particular. These actions will help lay the groundwork for the U.S. government assuming the 2015-2017 Chairmanship of the Arctic Council and support the National Strategy for the Arctic Region¹⁶. Beyond the Arctic region, the EPA will continue to work with the State Department, UNEP, and other international partners as part of the international Climate and Clean Air Coalition (CCAC).

The EPA collaborates with Department of Defense, Department of Homeland Security, USDA, FDA and other federal and state D/As on a variety of technical and policy homeland security

¹⁴ World Health Organization, Ambient (outdoor) air quality and health; Fact sheet N°313 Updated March 2014; <http://www.who.int/mediacentre/factsheets/fs313/en/>

¹⁵ <http://www.epa.gov/blackcarbon/basic.html>

¹⁶ http://www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf

issues. These issues focus on protecting the public and food and agriculture sectors from threats associated with use of chemical and biological agents. The EPA collaborates with these D/As on research pertaining to effective disinfectants for high threat microorganisms, planning for response to various potential incidents, training and development of policies and guidelines. The EPA continues to partner with OSHA, NIOSH and CPSP on risk assessment and risk mitigation activities.

One of the agency's most valuable partners on pesticide issues is the Pesticide Program Dialogue Committee (PPDC), which brings together a broad cross-section of knowledgeable individuals from organizations representing divergent views to discuss pesticide regulatory, policy, and implementation issues. The PPDC consists of members from federal and state D/As, industry/trade associations, pesticide user and commodity groups, consumer and environmental/public interest groups, and others. The PPDC provides a structured environment for meaningful information exchanges and consensus building discussions, keeping the public involved in decisions that affect them. Dialogue with outside groups is essential if the agency is to remain responsive to the needs of the affected public, growers, and industry organizations.

To effectively participate in the international agreements on chemicals (e.g., persistent organic pollutants (POPs), mercury and heavy metals), the EPA must continue to coordinate with other federal agencies and external stakeholders, such as Congressional staff, industry, and environmental groups. Similarly, the agency typically coordinates with the Food and Drug Administration's (FDA's) National Toxicology Program, the Centers for Disease Control/Agency for Toxic Substances and Disease Registry (CDC/ATSDR), the National Institute of Environmental Health Services (NIEHS) and the Consumer Product Safety Commission (CPSC) on matters relating to OECD test guideline harmonization.

The EPA's chemical testing data provides information for the Occupational Safety and Health Administration (OSHA) worker protection programs, the National Institute of Occupational Safety and Health (NIOSH) for research, and the Consumer Product Safety Commission (CPSC) for informing consumers about products through labeling. EPA frequently consults with these agencies on project design, progress and the results of chemical testing projects. The EPA continues to partner with OSHA, NIOSH and CPSC on risk assessment and risk mitigation activities.

The success of the EPA's Lead program is due in part to effective coordination with other federal agencies, states and tribes through the President's Task Force on Environmental Health Risks and Safety Risks to Children. The EPA will continue to coordinate with the Department of Housing and Urban Development (HUD) to clarify how new rules may affect existing EPA and HUD regulatory programs, and with the Occupational Safety and Health Administration (OSHA) on worker protection issues. The EPA will continue to work closely with state and federally recognized tribes to ensure that authorized state and tribal programs continue to comply with requirements established under TSCA and that the ongoing federal accreditation, certification and training program for lead professionals is administered effectively.

The EPA has a MOU with HUD to coordinate efforts on lead-based paint issues. As a result of the MOU, EPA and HUD have co-chaired the President's Task Force since 1997. There are

fourteen other federal agencies including the CDC and DOD on the Task Force. HUD and the EPA also maintain the National Lead Information Center and share enforcement of the Real Estate Notification and Disclosure Rule. EPA also works with CDC and the Department of State on global lead paint issues through work with the Global Alliance to Eliminate Lead Paint (GAELP), which the EPA currently chairs. Ultimately, reducing global market demand for paint with lead additives will help reduce the amount of lead in products manufactured abroad for sale overseas and in the United States.

The EPA's Office of Pollution Prevention and Toxic's (OPPT) Tribal Program continues to be committed to all of EPA's Indian Policies and adhering to the Office of Chemical Safety and Pollution Prevention Tribal Strategic Plan. OPPT meets two to four times per year with the National Tribal Operations Committee (NTOC) and other tribal engagement groups on a wide variety of OPPT-related activities and actions that impact tribal governments and communities. Some of the most recent outreach and consultation efforts have included different stages of Agency rule-making under TSCA such as PCB use

The National Tribal Toxics Council (NTTC), supported by OPPT, provides tribes with an opportunity for offering advice on the development of EPA chemical management and pollution prevention programs that affect tribes. Given the uniqueness of tribal cultures, communities and environmental problems, the NTTC helps EPA better tailor and more efficiently address a variety of issues, expand pollution prevention and safer chemical initiatives in Indian country and better evaluate unique chemical exposures on tribal lands.

Research

The EPA's Toxicity Forecaster (ToxCast™) is part of an ongoing multi-agency effort under the Tox21 collaboration MOU. Tox21 pools chemical research, data and screening tools from multiple federal agencies including the EPA, the National Institutes of Health (NIH) and the Food and Drug Administration (FDA). ToxCast utilizes existing resources to develop faster, more thorough predictions of how chemicals will affect human and environmental health. Tox21 and ToxCast are currently screening nearly 10,000 environmental chemicals for potential toxicity in high-throughput screening assays at the NIH Center for Advancing Translational Sciences (NCATS). The EPA also has an agreement to provide NCATS funding to support the effort.

The EPA recently announced the public release of chemical screening data on 1,800 Chemicals that was gathered through advanced techniques, including robotics and high-throughput screening, as part of the ongoing Tox21 federal collaboration to improve chemical screening. In FY 2016, the EPA will continue to engage stakeholder and partner communities to develop a framework for providing confidence in the use of high-throughput screening data to address a broad range of risk assessment needs. A significant element of EPA's FY 2016 research strategy includes expanded coverage of ToxCast by increasing the toxicity pathways and the types of chemicals that can be screened. Tox21's high-speed robot screening system will continue testing thousands of unique chemicals, to include nanomaterials and other chemicals found in industrial and consumer products, food additives, and drugs, for potential toxicity.

The Next Generation (NexGen) of Risk Assessment is a multi-agency project, chaired by the EPA, that builds upon ToxCast research efforts. CDC's ATSDR and the State of California's Environmental Protection Agency participate in addition to most Tox21 collaborators. Using the wealth of data currently being generated on molecular systems biology and gene-environment interactions, NexGen will develop approaches to make these data useful for human health risk assessment. The goal is to make risk assessments faster, less expensive, and more scientifically robust. In particular, NexGen is intended to help assess the array of chemicals that are potential environmental contaminants of concern that are too numerous to address by traditional approaches.

The EPA coordinates its nanotechnology research with other federal agencies through the National Nanotechnology Initiative (NNI),¹⁷ which is managed under the Subcommittee on Nanoscale Science, Engineering and Technology (NSET) of the NSTC Committee on Technology (CoT). The EPA has collaborated with many federal agencies in the development of a government-wide approach to nanotechnology research through the Committee on Environment, Natural Resources, and Sustainability Charter (CENRS) at the White House's Office of Science and Technology Policy (OSTP). The agency's Science to Achieve Results (STAR) program, which awards research grants to universities and non-profit organizations, has issued its recent nanotechnology grants¹⁸ jointly with NIOSH, NIEHS, and NSF.

The EPA coordinates its research on endocrine disruptors with other federal agencies through the interagency working group on endocrine disruptors under the auspices of the Toxics and Risk Subcommittee of the CENR. The EPA coordinates its biotechnology research through the interagency biotechnology research working group and the agricultural biotechnology risk analysis working group of the Biotechnology Subcommittee of NSTC's Committee on Science.

The EPA consults extensively with other federal agencies about the science of individual IRIS assessments, as well as improvements to the IRIS program, through an interagency working group including public health agencies (e.g., CDC, ATSDR, NIOSH, and NIEHS), many other agencies (e.g., DOD, NASA, SBA, DOT, DOE, DOI, etc.), and White House offices (OMB, OSTP, and CEQ). EPA also coordinates with ATSDR through a memorandum of understanding on the development of toxicological reviews and toxicology profiles, respectively. The EPA contracts with the National Academy of Sciences' National Research Council (NRC) on very difficult and complex human health risk assessments through consultation or review. The NRC currently is conducting a comprehensive review of the IRIS assessment development process, including EPA's recent enhancements.

Homeland Security research is conducted in collaboration with numerous agencies, leveraging funding across multiple programs to produce synergistic results. The EPA's National Homeland Security Research Center (NHSRC) works closely with the DHS to assure that EPA's efforts are directly supportive of DHS priorities without duplication. The EPA is also working with DHS to provide support and guidance in the startup of their University Centers of Excellence program. Recognizing that the DoD has significant expertise and facilities related to biological and chemical warfare agents, the EPA works closely with the Edgewood Chemical and Biological

¹⁷ For more information, see <<http://www.nano.gov>>.

¹⁸ For an example, see <http://es.epa.gov/ncer/rfa/2005/2005_star_nano.html>.

Center (ECBC), the Technical Support Working Group, the Army Corps of Engineers, and other Department of Defense organizations to address areas of mutual interest and concern. In conducting biological agent research, the EPA is also collaborating with CDC. The EPA works with DOE to access and support research conducted by DOE's National Laboratories, as well as to obtain data related to radioactive materials.

In addition to these major collaborations, the NHSRC has relationships with numerous other federal agencies, including the U.S. Air Force, U.S. Navy, FDA, USGS and NIST. Also, the NHSRC is working with state and local emergency response personnel to better understand their needs and build relationships, which will enable the quick deployment of NHSRC products. In the water infrastructure arena, the NHSRC is providing information to the Water Information Sharing Networks program. The NAS also has been engaged to provide advice on the long-term direction of the water research and technical support program.

Furthermore, HSRP is collaborating with the U.S. Army's Net Zero Initiative to develop and demonstrate innovative water technologies in efforts to increase resource efficiency and balance resource use by accomplishing net zero energy, waste, and water on installations by 2020.

Objective: Promote Pollution Prevention

The EPA is involved in a broad range of pollution prevention (P2) activities which yield reductions in hazardous materials generated, greenhouse gas emissions, and water and produce economic benefits in the public and private sectors. For example, the Environmental Preferable Purchasing (EPP) program helps federal agencies meet their mandates under Executive Order 13514 on Federal Leadership in Environmental, Energy, and Economic Performance to buy greener products and services. This program is aimed at reducing the federal government's environmental footprint and stimulating demand for greener products and services. The EPA works closely with other federal agencies, including the General Services Administration (GSA), U.S. Department of Agriculture (USDA), National Institute of Standards and Technology (NIST), and DOE, to develop guidance and tools to make environmentally preferable purchasing practical.

Under the Economy, Energy and Environment (E3) framework, EPA works with the Departments of Agriculture, Commerce, Energy, and Labor and the Small Business Administration in communities across the country to strengthen their local manufacturing base and create new jobs. E3 joins forces with local communities to connect small and medium-sized manufacturers with experts from federal agencies and states. In each E3 community, teams conduct customized technical assessments and offer practical, sustainable approaches that manufacturers can incorporate into their operations. These assessments aim to reduce energy consumption, minimize carbon footprints, prevent pollution, increase productivity and drive innovation throughout each facility.

In addition, the EPA serves as the federal government lead for a United Nations Environment Program voluntary international sustainability partnership called the Ten Year Framework of Programs on Consumption and Production (10YFP). Under the 10YFP, the EPA coordinates with State, USDA, GSA, and others, to promote U.S. methodologies for life cycle analysis and

sharing of data with key government and private sector partners in developed and developing countries.

Goal 5- Enforcing Environmental Laws

Objective: Address pollution problems through vigorous and targeted civil and criminal enforcement. Assure compliance with environmental laws.

The Enforcement and Compliance Assurance Program coordinates closely with the Department of Justice (DOJ) on all civil and criminal environmental enforcement matters. In addition, the program coordinates with other agencies on specific environmental issues as described herein.

The Enforcement and Compliance Assurance program coordinates with the Chemical Safety and Hazard Investigation Board, OSHA, and the Agency for Toxic Substances and Disease Registry in preventing and responding to accidental releases and endangerment situations, with the Bureau of Indian Affairs (BIA) on Tribal issues relative to compliance with environmental laws on Tribal lands, and with the Small Business Administration (SBA) on the implementation of the Small Business Regulatory Enforcement Fairness Act (SBREFA). The program also shares information with the Internal Revenue Service (IRS) on cases which require defendants to pay civil penalties, thereby assisting the IRS in assuring compliance with tax laws. In addition, it collaborates with the SBA to maintain current environmental compliance information at Business.gov, a website initiated as an e-government initiative in 2004 to help small businesses comply with government regulations. Coordination also occurs with the United States Army Corps of Engineers (ACE) on wetlands issues.

The United States Department of Agriculture/Natural Resources Conservation Service (USDA/NRCS) has a major role in determining whether areas on agricultural lands meet the definition of wetlands for purposes of the Food Security Act. Civil Enforcement coordinates with USDA/NRCS on these issues also. The EPA's Enforcement and Compliance Assurance program also coordinates with USDA on the regulation of animal feeding operations and on food safety issues arising from the misuse of pesticides and shares joint jurisdiction with the Federal Trade Commission (FTC) on pesticide labeling and advertising. Coordination also occurs with Customs and Border Protection on implementing the secure International Trade Data System across all federal agencies and on pesticide imports and on hazardous waste and Cathode Ray Tube exports. The EPA and the Food and Drug Administration (FDA) share jurisdiction over general-purpose disinfectants used on non-critical surfaces and some dental and medical equipment surfaces (e.g., wheelchairs). The agency has entered into an agreement with Housing and Urban Development (HUD) concerning enforcement of the Toxic Substance Control Act (TSCA) lead-based paint notification requirements.

The Criminal Enforcement program coordinates with other federal law enforcement agencies (i.e., Federal Bureau of Investigation (FBI), Customs, DOL, U.S. Treasury, United States Coast Guard (USCG), Department of the Interior (DOI) and DOJ) and with international, state and local law enforcement organizations in the investigation and prosecution of environmental crimes. The EPA also actively works with DOJ to establish task forces that bring together federal, state, and local law enforcement organizations to address environmental crimes. In

addition, the program has an Interagency Agreement with the Department of Homeland Security (DHS) to provide specialized criminal environmental training to federal, state, local, and Tribal law enforcement personnel at the Federal Law Enforcement Training Center (FLETC) in Glynco, GA.

Under Executive Order 12088 on Federal Compliance with Pollution Control Standards, the EPA is directed to provide technical assistance to other federal agencies to help ensure their compliance with all environmental laws. The Federal Facility Enforcement program coordinates with other federal agencies, states, local, and Tribal governments to ensure compliance by federal agencies with all environmental laws. The EPA also will continue its efforts to support the *FedCenter*, the Federal Facilities Environmental Stewardship and Compliance Assistance Center (www.fedcenter.gov), which is now governed by a board of more than a dozen contributing federal agencies.

The Enforcement and Compliance Assurance program collaborates with the states and tribes. States perform the vast majority of inspections, direct compliance assistance, and enforcement actions. Most EPA statutes envision a partnership between the EPA and the states under which the EPA develops national standards and policies and the states implement the program under authority delegated by the EPA. If a state does not seek approval of a program, the EPA must implement that program in the state. Historically, the level of state approvals has increased as programs mature and state capacity expands, with many of the key environmental programs approaching approval in nearly all states. The EPA will increase its efforts to coordinate with states on training, compliance assistance, capacity building, and enforcement. The EPA will continue to enhance the network of state and Tribal compliance assistance providers.

The Enforcement and Compliance Assurance program chairs the Interagency Environmental Leadership Workgroup established by Executive Order 13148 on Greening the Government through Environmental Leadership. The Workgroup consists of over 100 representatives from most federal departments and agencies. Its mission is to assist all federal agencies with meeting the mandates of the Executive Order, including implementation of environmental management systems and environmental compliance auditing programs, reducing both releases and uses of toxic chemicals, and compliance with pollution prevention and pollution reporting requirements. The program also will work with its regions, states and directly with a number of other federal agencies to improve Resource Conservation and Recovery Act (RCRA), Clean Water Act (CWA), and other statutory compliance at federal facilities, which array the full range of agency tools to promote compliance in an effective and efficient manner.

The EPA works directly with Canada and Mexico bilaterally and in the Trilateral Commission for Environmental Cooperation (CEC). The EPA's border activities require close coordination with the Bureau of Customs and Border Protection, the Fish and Wildlife Service, the DOJ, the Department of State, and the States of Arizona, California, New Mexico, and Texas. The EPA is the lead agency and coordinates U.S. participation in the CEC. The EPA works with the National Oceanic and Atmospheric Administration (NOAA), the Fish and Wildlife Service, and the U.S. Geological Survey on CEC projects to promote biodiversity cooperation and with the Office of the U.S. Trade Representative to reduce potential trade and environmental impacts such as invasive species.

The Enforcement and Compliance Assurance program, together with the EPA's International program, provides training and capacity building to foreign governments to improve their compliance and enforcement programs. This support helps create a level playing field for U.S. business engaged in global competition, helps other countries improve their environmental conditions, and ensures U.S. compliance with obligations for environmental cooperation as outlined in various free trade agreements. In support of these activities, the EPA works closely with the Department of State, selected U.S. Embassies, the U.S. Agency for International Development (USAID), the Office of the United States Trade Representative, the Department of Justice, the International Law Enforcement Academies, the U.S. Forest Service, and the Department of the Interior. The EPA also participates in the OECD Mutual Acceptance of Data program, designed to garner international recognition of testing data in support of pesticides and chemical registrations.

Superfund Enforcement

As required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Executive Order 12580 on Superfund Implementation, the Enforcement and Compliance Assurance program coordinates with other federal agencies in their use of CERCLA enforcement authority. This includes the coordinated use of CERCLA enforcement authority at individual hazardous waste sites that are located on both nonfederal land (EPA jurisdiction) and federal lands (other agency jurisdiction). As required by Executive Order 13016 amending Executive Order 12580, the agency also coordinates the use of CERCLA Section 106 administrative order authority by other departments and agencies.

The EPA also coordinates with the Departments of the Interior, Agriculture, and Commerce to ensure that appropriate and timely notices, required under CERCLA, are sent to the Natural Resource Trustees to commence the Natural Resource Damage Assessment process. The Department of Justice also provides assistance to EPA with judicial referrals seeking recovery of response costs incurred by the U.S., injunctive relief to implement response actions, or enforcement of other CERCLA requirements.

Under Executive Order 12580, the Superfund Federal Facilities Enforcement program assists federal agencies in complying with CERCLA. It ensures that 1) all federal facility sites on the National Priorities List have interagency agreements, also known as Federal Facility Agreements or FFAs, which provide enforceable schedules for the progression of the entire cleanup; 2) FFAs are monitored by the EPA for compliance; 3) federal sites that are transferred to new owners are transferred in an environmentally responsible manner; and 4) assistance is available, to the extent possible, to assist federal facilities in complying with their cleanup responsibilities. It is this program's responsibility to ensure that federal agencies, by law, comply with Superfund cleanup obligations "in the same manner and to the same extent" as private entities. After years of service and operation, some federal facilities contain environmental contamination, such as hazardous wastes, unexploded ordnance, radioactive wastes, or other toxic substances. To enable the cleanup and reuse of such sites, the Federal Facilities Enforcement program coordinates creative solutions that protect both human health and the environment. These enforcement solutions help restore facilities so they can once again serve an important role in the economy and welfare of local communities and the country.

COORDINATION WITH OTHER FEDERAL AGENCIES

Enabling Support Programs

Office of the Administrator (OA)

OA supports the leadership of the Environmental Protection Agency's (EPA) programs and activities to protect human health and safeguard the air, water, and land upon which life depends. Several program responsibilities include Congressional and intergovernmental relations, regulatory management and economic analysis, program evaluation, intelligence coordination, the Science Advisory Board, children's health, the small business program, and environmental training and outreach.

The EPA's Office of Policy (OP) interacts with a number of federal agencies during its rulemaking activities. Per Executive Order 12866 – Regulatory Planning and Review, OP submits “significant” regulatory actions to the Office of Management and Budget (OMB) for interagency review prior to signature and publication in the *Federal Register*. In addition, OP coordinates EPA's review of other agency's actions submitted to OMB for review under EO 12866. Under the Congressional Review Act, rules are submitted to each House of Congress and to the Comptroller General of the United States. OP reviews, edits, tracks and submits regulatory actions and other documents that are published by the Office of the Federal Register. For regulations that may have a significant economic impact on a substantial number of small entities, OP collaborates extensively with the Small Business Administration and OMB. Finally, OP also leads EPA's review of draft Executive Orders and Presidential Memorandum.

OP collaborates with other federal regulatory and natural resource agencies (e.g., the United States Department of Agriculture (USDA), the Department of Energy (DOE), Department of the Interior (DOI), and the National Oceanic Atmospheric Administration) to collect economic data used in the conduct of economic cost-benefit analyses of environmental regulations and policies and to foster improved interdisciplinary research and reporting of economic information. This is achieved in several ways, including supporting workshops and symposiums on environmental economics topics (e.g., economic valuation of ecosystem services, adoption of flexible regulatory mechanisms to achieve environmental goals), and representing the EPA on interagency workgroups or committees tasked with measuring the economic health and welfare benefits of federal policies and programs. For example, OP continues to work with USDA and DOE to evaluate and improve climate change integrated assessment models and develop measures of the social damages attributable to Greenhouse Gas emissions. This information is used to generate estimates of the social cost of carbon (SCC), which enables all federal agencies to better incorporate climate impact assessments and estimates of associated economic damages into policy and regulatory analyses.

OP partners with other federal agencies to improve the quality of federal program evaluation studies that gather empirical evidence to assess whether and why programs achieve outcomes and how programs might be changed to improve results. OP supports forums for experts to share and improve environmental evaluation methodologies, and represents the EPA on interagency

workgroups geared toward improving federal capacity to conduct or oversee rigorous and objective evaluation studies.

OP supports interagency, government-wide efforts that do not fall within the scope of any single program office. For example, OP participates in green purchasing activities with the General Services Administration (GSA). OP hosts a website to encourage lean manufacturing and created tools that are used by other federal agencies in efforts that promote increased integration of environmental and energy considerations into “lean manufacturing” techniques. The tools are widely used by the Manufacturing Extension Partnership centers under the Department of Commerce (DOC), and in the “E3” initiative, a multi-agency framework including the EPA, Commerce, DOE, and other agencies.

OP supports the Deputy Administrator’s work on the interagency Council on Preparedness and Resilience, which was established in 2013 under Executive Order 13653 entitled “Preparing the United States for the Impacts of Climate Change” and charged with overseeing all priority Federal Government actions related to climate preparedness and resilience. OP also chairs the interagency Adaptation Planning Work Group on behalf of the Council and the White House Council on Environmental Quality. The Work Group is responsible for overseeing Section 5 (“Federal Agency Planning for Climate Change Related Risk”) of EO 13653 and charged with supporting the development and implementation of Climate Change Adaptation Plans government-wide. It is also responsible for overseeing the interagency Community of Practice (COP), and for working with the U.S. Global Change Research Program’s (USGCRP) Adaptation Science Work Group to ensure the USGCRP provides timely and useful information to federal agencies as they implement their Climate Change Adaptation Plans. OP co-chairs the COP with the Department of the Interior.

Office of the Chief Financial Officer (OCFO)

OCFO makes active contributions to standing interagency management committees, including the Chief Financial Officers Council, focusing on improving resources management and accountability throughout the federal government. OCFO actively participates on the Performance Improvement Council which coordinates and develops strategic plans, performance plans, and performance reports as required by law for the Agency. In addition, OCFO participates in numerous OMB-led E-Government initiatives such as the Financial Management and Budget Formulation and Execution Lines of Business and has interagency agreements with the Department of the Interior’s Interior Business Center for processing agency payroll. OCFO provides a Relocation Resource Center capable of managing a “one-stop shop” for domestic and international relocations. The EPA currently provides services internally to EPA, as well as externally to the Transportation Security Administration, USDA, OPM, U.S. Department of Labor (DOL), U.S. Patent and Trademark Office, and two offices within the U.S. Department of Health and Human Services. OCFO participates with the Bureau of Census in maintaining the Federal Assistance Awards Data System. OCFO also coordinates appropriately with Congress and other federal agencies, such as the Department of Treasury, the Government Accountability Office (GAO), and GSA.

Office of Administration and Resources Management (OARM)

OARM is committed to working with federal partners that focus on improving management and accountability throughout the federal government. OARM provides leadership and expertise to government-wide activities in various areas of human resources, grants management, contracts management, suspension and debarment, and homeland security. These activities include specific collaboration efforts with federal agencies and departments through:

- Chief Human Capital Officers, a group of senior leaders that discuss human capital initiatives across the federal government.
- The Legislative and Policy Committee, a committee comprised of other federal agency representatives who assist the Office of Personnel Management in developing plans and policies for training and development across the government.
- The Chief Acquisition Officers Council, the principal interagency forum for monitoring and improving the federal acquisition system. The Council also is focused on promoting the President's specific initiatives and policies in all aspects of the acquisition system.
- The Award Committee for E-Government, which provides strategic vision for the portfolio of systems/federal wide supporting both federal acquisition and financial assistance. Support is also provided to the associated functional community groups, including the Procurement Committee for E-Gov, the Financial Assistance Committee for E-Gov and the Intergovernmental Transaction Working Group.
- The Interagency Suspension and Debarment Committee (ISDC), is a representative committee of federal agency leaders in suspension and debarment. The Committee facilitates lead agency coordination, serves as a forum to discuss current suspension and debarment related issues, and assists in developing unified federal policy. Besides actively participating in the ISDC, OARM: 1) provides instructors for the National Suspension and Debarment Training Program offered through the Federal Law Enforcement Training Center and 2) supports the development of coursework/training on the suspension and debarment process for the Inspector General Academy and the Council of the Inspectors General on Integrity and Efficiency
- The Financial Management Line of Business (FMLoB), which has been expanded to also encompass the Grants Management Line of Business. The combined FMLoB, with the Department of Treasury as the managing partner, will more closely align the financial assistance and financial management communities around effective and efficient management of funds. OARM also participates in the Grants.gov Users' Group, as well as the Federal Demonstration Partnership which is designed to reduce the administrative burdens associated with research grants.
- The Partnership for Sustainable Communities initiative, with the Department of Housing and Urban Development and the Department of Transportation to improve the alignment

and delivery of grant resources to communities under certain environmental programs in the area of suspension and debarment.

In addition, throughout FY 2015 and FY 2016, the OARM will continue working with the Department of the Interior's Business Center (IBC), which is an OPM and OMB approved Human Resources Line of Business shared service center. IBC offers HR transactional processing, compensation management and payroll processing, benefits administration, time and attendance, HR reporting, talent acquisition systems, and talent management systems.

OARM also is working with OMB, GSA, DHS, and DOC's National Institute of Standards and Technology to continue to implement the Smart Card program.

Office of Environmental Information (OEI)

To support the EPA's overall mission, OEI collaborates with a number of other federal agencies, states and Tribal governments on a variety of initiatives, including making government more efficient and transparent, protecting human health and the environment, and assisting in homeland security. OEI is primarily involved in the information technology (IT), information management (IM), and information security aspects of the projects on which it collaborates.

The Chief Information Officer (CIO) Council: The CIO Council is the principal interagency forum for improving practices in the design, modernization, use, sharing, and performance of federal information resources. The Council develops recommendations for IT/IM policies, procedures, and standards; identifies opportunities to share information resources; and assesses and addresses the needs of the federal IT workforce.

E-Rulemaking: The EPA serves as the Program Management Office (PMO) for the eRulemaking Program. The eRulemaking Program's mission encompasses two areas: to improve public access, participation in and understanding of the rulemaking process; and to improve the efficiency and effectiveness of agency partners in promulgating regulations. The eRulemaking Program maintains a public website, www.Regulations.gov, which enables the general public to access and submit comments on various documents that are published in the Federal Register, including proposed regulations and agency-specific notices. The Federal Docket Management System (FDMS) is the agency side of Regulations.gov. FDMS enables agencies to administer public submissions regarding regulatory and other documents posted by the agencies on the Regulations.gov website. The increased public access to the agencies' regulatory process enables a more informed public to provide supporting technical/legal/economic analyses to strengthen the agencies' rulemaking vehicles. As the PMO, the EPA coordinates the operations of the eRulemaking Program through its 40 partner departments and independent agencies (comprising more than 177 agencies, boards, commissions and offices). The administrative boards work with the PMO on day-to-day operations, ongoing enhancements and long-range planning for program development. These boards (the Executive Committee and the Advisory Board) have representative members from each partner agency and deal with contracts, budget, website improvements, improved public access, records management and a host of other regulatory concerns that were formally only agency-specific in nature. Coordination and leadership from the Office of Management and Budget, Office of Information and Regulatory Affairs and partner

agencies allows for a more uniform and consistent presentation of rulemaking dockets across government. This coordination is further realized by the fact that more than 90 percent of all federal rules promulgated annually are managed through the eRulemaking Program.

Freedom of Information Act (FOIA): The EPA serves as the lead for the FOIAonline, a multi-agency solution that enables the EPA and partner agencies to meet their responsibilities under FOIA while creating a repository of publicly released FOIA records for reuse. Through the FOIAonline, the public has the ability to submit and track requests, search and download requests and responsive records, correspond with processing staff and file appeals. Agency users are provided with a secure, login-access web site to receive and store requests, assign and process requests (and refer to other agencies), post responses online, produce the annual FOIA report to DOJ and manage records electronically. Current federal partners include the EPA, the Department of Commerce, the National Archive and Records Administration, the Merit Systems Protection Board, Pension Benefit Guarantee Corporation, Federal Labor Relations Authority, Customs and Border Protection, United States Citizenship and Immigration Services, the Department of the Navy, and General Services Administration.

The National Environmental Information Exchange Network (EN): The EN is a partnership among states, tribes, territories, and the EPA. It revolutionizes the exchange of environmental information by allowing these partners to share data efficiently and securely over the Internet. The EN uses technology, data standards, open-source software, shared services and reusable tools and applications to provide real-time access to higher quality data. This approach improves data accessibility, streamlines processes, reduces operational costs, and saves time and resources for all of the partners, ultimately leading to improved environmental decision making. Leadership for the EN is provided by the Exchange Network Leadership Council (ENLC), which is co-chaired by EPA and a state partner. The ENLC works with representatives from the EPA, state and territorial environmental agencies, and Tribal organizations to manage the Exchange Network.

Automated Commercial Environment/International Trade Data System (ACE/ITDS): ITDS is the electronic information exchange capability, or "single window," through which businesses will transmit data required by participating agencies for the import or export of cargo. ACE is the system being built by Customs and Border Protection (CBP) to ensure that its customs officers and other federal agencies have the information they need to decide how to handle goods and merchandise being shipped into or out of the United States. It also will be the way those agencies provide CBP with information about potential imports/exports. ITDS eliminates the need, burden and cost of paper reporting. It also allows importers and exporters to report the same information to multiple federal agencies with a single submission, and facilitates movement of cargo by automating processing of the import and exports.

The EPA has the responsibility and legal authority to make sure pesticides, toxic chemicals, vehicles and engines, ozone-depleting substances and other commodities entering and hazardous waste exiting the country meet our human health and environmental standards. The EPA's ongoing collaboration with CBP on the ACE/ITDS project will greatly improve the efficiency of processing these shipments through information exchange between the EPA and CBP. The EPA is one of the leading agencies working with CBP towards the goal to automate the current

manual paper review process for admissibility so that importers and brokers (referred to collectively as Trade) can know before these commodities are loaded onto an airplane, truck, train or ship if their shipment meets the EPA's reporting requirements. As a result of this automated review, Trade can greatly lower their cost of doing business and customs officers at our nation's ports will have the information on which shipments comply with our environmental regulations.

The EPA's work on ACE/ITDS builds on the EPA's technical leadership in using Web services to exchange data with the Central Data Exchange and Exchange Network (CDX/EN). As a result of our advocacy and the interest of other participating federal agencies, CBP is using Web services to exchange data with certain agencies participating in ACE/ITDS. In FY 2016, EPA will continue pilot tests for electronic reporting and processing of EPA-regulated imports for ozone depleting substance, vehicle and engine and pesticide imports, and hazardous waste exports. As determined by CBP, the pilots will roll out the electronic capabilities from the initial few ports at the start of the pilots to the 300 plus ports nation-wide. These pilots will use the data exchanges to automate and simplify the entry process for shipments, thereby reducing the reporting burden and time for Trade to file entries for legitimate goods entering the United States. Each of the EPA's regulatory programs will provide key information that will be moved to CBP via Web services so the information reported by Trade can be checked against the EPA-approved importers, commodities and registered products. Redundant data elements that the EPA, CBP and other agencies collect on the separate forms/filings can be reported once and used many times by many agencies. This simplified entry along with automated review of import and export filings will greatly facilitate the movement of legitimate goods while minimizing the effort needed by the Trade community as well as by CBP and the EPA. Automating document review is critical for agencies such as the EPA that have limited staff at the ports, providing a "virtual presence" at the more than 300 ports nation-wide.

The Executive Order 13659, Streamlining the Export/Import Process for America's Business, includes a milestone to have ITDS complete by December 2016. EPA is working with CBP and Trade to complete all of the pilots by that timeframe.

Geospatial Information: The EPA works extensively with Department of the Interior (DOI), National Oceanic and Atmospheric Administration (NOAA), U.S. Geological Survey (USGS), the National Aeronautics and Space Administration (NASA), the United States Department of Agriculture (USDA), and the Department of Homeland Security (DHS) on developing and implementing geospatial approaches to support various business areas. It also works with 25 additional federal agencies through the activities of the federal Geographic Data Committee (FGDC) and the OMB Geospatial Line of Business (Geo LoB), for which the EPA leads several key initiatives. The EPA also participates in the FGDC Steering Committee and Executive Committee. A key component of this work is developing and implementing the National Spatial Data Infrastructure (NSDI) and the National GeoPlatform. The key objective of the NSDI is to make a comprehensive array of national spatial data – data that portray features associated with a location or are tagged with geographic information and can be attached to and portrayed on maps – easily accessible to both governmental and public stakeholders. Use of this data, in tandem with analytical applications, supports several key EPA and government-wide business areas. These include: ensuring that human health and environmental conditions are represented in the

appropriate contexts for targeting and decision making; enabling the assessment, protection and remediation of environmental conditions; and aiding emergency first responders and other homeland security activities. The EPA supports geospatial initiatives through efforts such as the EPA Geospatial Platform, the EPA Environmental Dataset Gateway, the National Environmental Information Exchange Network, National Environmental Policy Act (NEPA) Assist, EPA Metadata Editor, Facilities Registry System (FRS) Web Services, and My Environment. The EPA also works closely with its state, Tribal, and international partners in a collaboration that enables consistent implementation of data acquisition and development, standards, and technologies supporting the efficient and cost effective sharing and use of geographically-based data and services.

Global Earth Observation System of Systems (GEOSS): GEOSS seeks to connect the producers of environmental data and decision-support tools with the end users of these products, with the aim of enhancing the relevance of Earth observations to global issues. The result is to be a global public infrastructure that generates comprehensive, near-real-time environmental data, information and analyses for a wide range of users. The U.S. Group on Earth Observations (USGEO) is the US representative in GEOSS and is coordinated by the White House Office of Science Technology Policy (OSTP). The EPA and a significant number of other federal agencies, including NASA, NOAA, USGS, HHS, DOE, Department of Defense, USDA, the Smithsonian Institution, National Science Foundation, the Department of State, and the Department of Transportation are participants in USGEO. Under the ten-year strategic plan, published by OSTP in 2005, the EPA is leading the development of the environmental component of the Integrated Earth Observation System (IEOS), which will be the U.S. federal contribution to the international GEOSS effort. Earth observation data, models, and decision-support systems will play an increasingly important role in finding solutions for complex problems, including adaptation to climate change. The EPA lead for USGEO is the Office of the Science Advisor and OEI plays a supporting role. EPA also coordinates with the OMB and OSTP to connect the interagency GEOSS work with our Open Government and Data.gov activities.

Office of the Inspector General (OIG)

The EPA Inspector General is a member of the Council of Inspectors General on Integrity and Efficiency (CIGIE), an organization comprised of federal Inspectors General (IGs), (GAO), and the Federal Bureau of Investigation (FBI). The CIGIE coordinates and improves the way IGs conduct audits, investigations, and internal operations. The CIGIE also promotes joint projects of government-wide interest and reports annually to the President on the collective performance of the IG community. The EPA OIG coordinates criminal investigative activities with other law enforcement organizations such as the FBI, Secret Service, and Department of Justice. In addition, the OIG participates with various inter-governmental audit forums and professional associations to exchange information, share best practices, and obtain or provide training. The OIG also promotes collaboration among the EPA's partners and stakeholders in the application of technology, information, resources, and law enforcement in government-wide environmental programs through its production of the Catalogue of Environmental Programs <http://www.epa.gov/oig/catalog/>, its participation on the Deepwater Horizon Task Force, and its outreach activities. Additionally, the EPA OIG initiates and participates in collaborative audits,

program evaluations, and investigations with OIGs of agencies with an environmental mission such as the DOI and USDA, and with EPA as well as other federal, state, and local law enforcement agencies as prescribed by the IG Act, as amended. As required by the IG Act, the EPA OIG coordinates and shares information with the GAO. The EPA OIG also serves as the Inspector General of the U.S. Chemical Safety and Hazard Investigations Board.

MAJOR MANAGEMENT CHALLENGES

Introduction

The Reports Consolidation Act of 2000 requires the Inspector General to identify the most serious management challenges facing the EPA, briefly assess the agency's progress in addressing them, and report annually.

The EPA has also established procedures for identifying and addressing its key management challenges. As part of the agency's Federal Management Financial Integrity Act process, EPA senior managers meet with representatives from the EPA's Office of Inspector General, the Government Accountability Office, and the Office of Management and Budget to hear their views on key management challenges facing the agency. EPA managers also use audits, reviews, and program evaluations conducted internally and by OIG, GAO, and OMB to assess program effectiveness and identify potential management issues. The EPA recognizes that management challenges, if not addressed adequately, may prevent the agency from effectively meeting its mission. The EPA remains committed to addressing all management issues in a timely manner and to the fullest extent of its authority.

The following discussion summarizes each of the FY 2014 management challenges identified by the EPA's OIG and the GAO and presents the agency's response.

1. Addressing EPA's Emerging Role in Climate Change

Summary of Challenge: In 2013, the GAO designated climate change as a "High Risk" area, noting that climate change poses management challenges for the federal government at large, and that the EPA will play a role in addressing this challenge. Additionally, GAO states that the federal government is not well positioned to address the fiscal exposure presented by climate change and needs a government-wide strategic approach with strong leadership to manage related risks.

Agency Response: The EPA plays a key role in implementing President Obama's Climate Action Plan, working closely with states and other stakeholders to develop and implement carbon pollution standards for new and existing power plants, promoting energy efficiency and renewable energy, setting additional greenhouse gas standards for the transportation sector, and actively participating in climate change adaptation activities.

The EPA is both taking regulatory actions and implementing ongoing voluntary partnership programs to address climate change, including:

- The first-ever harmonized Department of Transportation and EPA fuel economy and greenhouse gas (GHG) emission standards for light-duty vehicles and heavy-duty vehicles;
- The Greenhouse Gas Reporting Program; and
- The ENERGY STAR Program across the residential, commercial, and industrial sectors.

Recognizing that climate change cuts across many programs and offices, the EPA's senior leadership has taken steps to expand and improve communication and coordination on emerging climate change issues. EPA offices working on climate change have established coordination mechanisms including daily planning calls, regular meetings at the Deputy Administrator level, and extensive outreach across offices and regions. These processes will ensure that the agency receives information and input, draws effectively on its resources, and provides useful information to its stakeholders around the country.

Finally, the EPA delivers on its commitments to reduce greenhouse gas emissions under its ongoing partnership programs, which are focused on energy efficiency, transportation, and other sectors. Experience and knowledge gained through these programs informs EPA's input into the full range of multi-agency discussions on domestic climate policies and technologies focused on transportation; energy efficiency; renewable energy; and new technologies, such as carbon capture and storage.

2. Reducing Pollution in the Nation's Water

Summary of Challenge: The GAO identifies "reducing pollution in the nation's water" as a management challenge and highlights the need to use improved hazard data and updated information on treatment technologies to better screen industrial categories for new or revised effluent guidelines. GAO's review of EPA's CWA Section 319 program focuses on more effective regional oversight of states' nonpoint source pollution programs. The GAO also offers several recommendations on how to improve the EPA's Total Maximum Daily Load (TMDL) program. Many of these recommendations, however, are recognized as beyond EPA's statutory authority.

Agency Response: The EPA has developed the new Industrial Wastewater Treatment Technologies (IWTT) database, which contains new and updated information on treatment technologies for 35 industrial categories. Most of the new data include pilot or full scale treatment performance data that is used to screen and analyze industry categories for advances in treatment technologies for reducing pollutants in wastewater. Together with updated industrial wastewater hazard data, the EPA will publish the 2014 Effluent Guidelines Annual Review Report later in 2014. A screening approach that better integrates the most recent toxicity and treatment technology performance data will facilitate identifying industries for new or revised effluent guidelines.

Regarding the CWA 319 program, the agency issued "Nonpoint Source Program and Grant Guidelines for States and Territories (April 2013), which contains provisions to strengthen the EPA's oversight of state programs. It lays out nationally consistent grant conditions for implementation by EPA regions so there is consistency across the individual state 319 grant programs. It includes areas for improved tracking and reporting of program outcomes, such as changes in a waterbody's biological health and progress in watershed protection/restoration. It also includes the requirement for state grant workplans. EPA finalized its annual Performance and Progress Determination Guidance, which regions use to assess state progress.

The GAO's four recommendations for EPA's TMDL program were: 1) Develop and issue new regulations requiring that TMDLs include additional elements; 2) issue regional TMDL review

and approval guidance with more specificity to ensure more consistent application of existing TMDL elements; 3) place conditions on states' annual use of nonpoint source management and water pollution control grants to ensure that the funds achieve greater reductions in nonpoint source pollution associated with TMDL implementation; and 4) obtain missing data that currently impede EPA's efforts to determine whether and to what extent TMDLs have been implemented or to what extent implemented TMDLs have helped impaired waters. Although limited authority and capacity constrain EPA from fully implementing all GAO's recommendations as written, the agency is continuing to take action to some extent on each one. The TMDL program plans to work with regional programs in FY 2014 and 2015 to revisit TMDL review and approval. The EPA continues to work with several states on a GIS data reporting study to improve the quality and ease of state GIS data submissions, including those related to impaired waters and TMDLs. The TMDL program will discuss the grant conditions recommendation with EPA's nonpoint source program in the context of their next Grants Guidelines update, and will work with the Section 106 program on adding possible conditions. Recently issued nonpoint source program Grants Guidelines will be observed for effectiveness in promoting TMDL implementation.

EPA Regions 2 and 3 are working to reduce nutrient and sediment pollution in the Chesapeake Bay watershed by implementing the Chesapeake Bay TMDL. The Bay TMDL establishes maximum amounts of nitrogen, phosphorus, and sediment that the Chesapeake Bay can receive and still meet water quality standards. The seven Bay watershed jurisdictions developed Watershed Implementation Plans (WIPs) that describe how they will reduce their loads of these pollutants to the Bay and its tributaries. In May 2014, the EPA provided assessments to the jurisdictions on their progress toward meeting 2012-2013 and 2014-2015 milestones and WIP goals. The EPA also provided an assessment to federal agencies on their progress toward meeting 2012-2013 and 2014-2015 water quality milestones set forth under the strategy for implementing Executive Order 13508. The goals and milestones outline the steps the jurisdictions and federal agencies are taking toward having all pollution control measures in place by 2025 to fully restore the Chesapeake Bay. The Bay jurisdictions drafted a new partnership agreement, signed on June 16, 2014, that establishes goals and outcomes for the full range of the partners' efforts to restore the Bay and its watershed.

3. Providing Assurance that Public Drinking Water is Safe

Summary of Challenge: GAO acknowledges that the EPA has made progress on providing assurance that public drinking water is safe. In January 2014, GAO reported that EPA had implemented three recommendations made in GAO's May 2011 report related to improving the Unregulated Contaminant Monitoring Rule (UCMR) program. Nevertheless, there are still several outstanding challenges the UCMR program faces, including uncertainty in true occurrence of certain contaminants because of a fixed monitoring frequency that can miss seasonal or sporadic variations; statutory cap of 30 contaminants every 5 years, which restricts the ability to collect data on additional contaminants that could be monitored for additional little cost; and lag in regulatory determination supported by occurrence data.

Agency Response: As noted in the agency's response to the January 2014 report, the EPA generally agrees with GAO's recommendations, even as it views the UCMR program as effective and integral to agency efforts to assess and address emerging contaminants. As EPA

develops the rule for the next UCMR cycle (UCMR 4), it will seek—to the extent practical (taking into account, for example, cost and implementation/logistical considerations)—to adjust the monitoring frequency for contaminants anticipated to have significant sporadic/seasonal occurrence. The EPA is also considering the practicality and appropriateness of a shorter period for contaminant monitoring to address the concern about the availability of UCMR data to support Regulatory Determinations. The EPA will continue to work within the statutory authority established by the Safe Drinking Water Act as it selects the most appropriate contaminants for UCMR monitoring. The EPA notes that GAO has identified the statutory cap of 30 contaminants as a matter for Congressional consideration.

4. Safe Reuse of Contaminated Sites

***Summary of Challenge:** The OIG cites concerns related to EPA management controls for designating sites as Ready for Anticipated Uses or Protective for People and for maintaining accurate designations in the long term, especially in situations where: states take over long-term monitoring and maintenance responsibilities for Superfund cleanups; environmental professionals performed proper environmental investigation as part of certifications for due diligence; and where entities outside the agency perform oversight of the requirement to meet “continuing obligations” at Brownfield properties funded by the EPA. Further, the OIG wants the EPA to finalize vapor intrusion guidance, train staff on vapor intrusion issues and finalize toxicity values for trichloroethylene and perchloroethylene.*

Agency Response: The EPA has advanced significant efforts to oversee and manage the long-term stewardship of contaminated sites within its control. Cleaning up contaminated sites and ensuring their safe reuse over the long term is an agency priority and central to the EPA’s mission. The agency’s authority and control over contaminated sites varies depending on the statutory authority under which the site is being addressed. Sites undergoing cleanup through the Superfund Program provide the agency the most direct control through its authority to order the cleanup, provide oversight, seek penalties for non-compliance, and negotiate the cleanup process. The agency can delegate all or parts of the RCRA program to states to manage in lieu of EPA. For the RCRA Corrective Action Program, 44 states are authorized to implement the federal program and have the primary decision-making responsibility to ensure safe long-term remedies. In unauthorized states, and where work share arrangements have been made, the EPA Regions are the lead for ensuring protective long-term remedies. The agency retains enforcement authority at state delegated sites to ensure the proper cleanup and management of hazardous wastes. The Brownfields program provides funding to eligible entities to cleanup sites. Brownfield sites are cleaned up in accordance with state cleanup levels and oversight. Cleanups being conducted under the Underground Storage Tank program are typically conducted and overseen through state programs; however, EPA typically conducts the cleanup from leaking underground storage tanks on tribal lands. The EPA’s ability to oversee and manage the long-term stewardship of contaminated sites must be based on these differences in its legal authority and state and local governments’ responsibilities.

The EPA and state and tribal response programs continue to make progress in cleaning sites to protect public health and the environment and support the safe use of cleaned and stabilized properties. The agency believes that it is communicating site risks and remedies and information

needed to ensure protectiveness. However, in many circumstances the maintenance for long-term stewardship rests with a state, local, trust or other private entity.

The Superfund, Corrective Action, Brownfields and Underground Storage Tank programs annually report the number of sites ready for anticipated use (RAU). The RAU is an indicator that the local, state, or federal agency has determined there is no pathway for human exposure to unacceptable levels of contamination based on current site conditions and that cleanup goals and engineering controls (ECs) or institutional controls (ICs) have been implemented for the media (soil, water, sediments, etc.) that affects current and reasonably anticipated future use of the site.¹⁹ The RAU is not a reporting of site-specific risk. Any determination made for the purposes of the RAU measure is based on the information at the time the determination is made. This may change if the site's conditions change or if new or additional information is discovered regarding the contamination or conditions on the site. Furthermore, the RAU determinations are specific to the exact uses at the site. As such, parties (e.g. land owners or developers) interested in finding out what uses would be protective for a particular property should rely on site-specific cleanup documents and site-specific institutional controls and should contact the appropriate regulatory agency for more information.

When requested, the Superfund program can issue Ready for Reuse (RfR) Determinations which are status reports documenting that a property can support an intended use as long as all required response conditions and use limitations identified in the site's response decision documents and land title documents continue to be met. However, the RfR determinations are only reflections of the environmental status of a property at a point in time. They do not make any claims about the activities taken by individuals who are legally responsible for ensuring the maintenance and integrity of institutional controls.

Whenever waste is left in place at sites on the National Priorities List, the Comprehensive Environmental Response, Compensation and Liability Act requires that the remedy at the site be reviewed at least once every five years to ensure its continued protectiveness. The EPA's national Superfund Program reviews Five-Year Reports at all sites and tracks any recommendations for needed further action to ensure implementation. Recently, EPA has developed several new guidance documents to ensure consistent decision-making and documentation for Five-Year Reviews.

The EPA and our state and tribal co-implementers may select institutional controls (ICs) to control land and resource use where residual contamination remains in place. ICs help minimize the potential for exposure to contamination and/or protect the integrity of engineered components. The agency has developed cross-program guidance, *Institutional Controls: A Guide to Planning, Implementing, Maintaining and Enforcing Institutional Controls at Contaminated Waste Sites* (PIME guidance), which stresses the need for EPA site managers and attorneys to coordinate with tribes, state and local governments, communities, and other stakeholders to ensure that ICs are properly implemented, maintained and enforced over their lifetime. Additionally, the PIME guidance highlights a number of factors for entities implementing ICs to consider, including: 1) providing adequate documentation of use restrictions in the response

¹⁹ An area of current attention is the lack of data on ICs for the underground storage tanks program. To address this concern EPA is working with states to collect, document, and share the IC approaches used by state UST programs.

decision documents; 2) formalizing agreements for state assurance on IC responsibilities early in the response process; 3) providing strategies to implement ICs on properties with non-labile landowners; and 4) criteria to select an appropriate grantee to hold the covenant or title to the real property interest (for proprietary controls). The agency has also developed *Institutional Controls: A Guide to Preparing Institutional Controls Implementation and Assurance Plans at Contaminated Sites*, which will assist regions in systematically establishing and documenting the activities associated with implementing and ensuring the long-term stewardship of ICs. These plans will provide information to stakeholders on the legal authorities for enforcing ICs, including relevant state IC laws, agency orders or agreements, or voluntary cleanup agreements. These guidances relate to ICs when they are a component of the EPA's cleanup decisions; the installation of ICs is by state and local governments.

The agency will continue to encourage state and tribal response program funding of tracking and management systems for land use and ICs. The EPA prepares a report annually that highlights response programs and their brownfield and contaminated site inventory efforts and systems in place to track institutional and other land use controls. The latest report is posted at <http://www.epa.gov/brownfields>.

The agency has developed general education and outreach materials about ICs and their importance in supporting safe land reuse. The EPA continues to include training sessions on ICs as part of its national brownfields conference as well as panel discussions between local government and state programs. The EPA will also continue to develop and maintain information systems like "Cleanups in My Community" (<http://www.epa.gov/cimc>) to educate and inform the public regarding federally funded contaminated site assessment and cleanup activities.

Promoting reuse involves communities in cleanup and reuse discussions. The EPA will continue to explore new tools to ensure appropriate reuse and enhance long-term protectiveness, including:

- *Ready for Reuse Determinations* (environmental status reports on site reuse)
- *Comfort and Status Letters* (which convey status of the site remediation and liability issues)
- *EPA Funded Reuse Planning*, and
- *Site Reuse Fact Sheets* (which highlight critical remedial components in place, long-term maintenance activities, and ICs).

5. Cost and Pace of Cleanup at Superfund and other Hazardous Waste Sites

Summary of Challenge: According to the GAO, the EPA continues to make progress in identifying hazardous waste sites requiring cleanup. However, recent GAO reports indicate that not only will cleanup costs be substantial, but problems with the accuracy and completeness of data prevent the agency from estimating future cleanup costs. The GAO recommends that the agency assess the comprehensiveness and reliability of the data it collects and, if necessary, improve the data to provide aggregated information.

Agency Response: The EPA recognizes the challenges in describing the multiple facets of the Superfund Program concisely and realizes that many sites face significant uncertainties regarding future site cleanup requirements. Due to these significant uncertainties, aggregate estimates of future costs and performance, especially on an annual basis, are bound by large ranges, which limit the contribution such information provides to annual appropriation decision makers.

Since the inception of the Superfund Program, the EPA has provided a mix of site-specific and aggregate data to Congress through the annual budget process and other avenues to facilitate annual Superfund appropriation decisions. The agency recognizes the importance of informing and educating partners and stakeholders about the EPA's commitment to, and progress toward, environmental cleanup, and continues to explore options to share information about cleanup plans and progress at sites.

Under the 2010 Integrated Cleanup Initiative (ICI), the EPA introduced a new remedial action project completion measure which responds to GAO's recommendations to provide more data on site progress. In addition, as a follow on to the ICI, in November 2012, the Superfund Remedial program initiated a comprehensive review of its operations to identify options to maintain its effectiveness in achieving its core mission of protecting human health and the environment in the face of diminishing funding availability. The Remedial program continues to implement the technical and program management improvements recommended in the review so that they are incorporated into the normal business practices of the program. Finally, in an effort to improve transparency and accountability, the Superfund Remedial Program is deploying the Superfund Enterprise Management System (SEMS) in early FY 2014. SEMS will use a formal project management software tool to better understand and track site progress and to enable it to more accurately and consistently plan, track and report activities and resources.

6. Transforming EPA's Processes for Assessing and Controlling Toxic Chemicals/EPA's Framework for Assessing and Managing Chemical Risk

Summary of Challenge: The OIG and GAO believe that the EPA's effectiveness in assessing and managing chemical risks is hampered in part by limitations on the agency's authority to regulate chemicals under the Toxic Substances Control Act and other statutes. Despite those limitations, the EPA could better assess and manage chemical risks by addressing challenges in data collection, toxicity screening and improving public access to chemical data. The GAO has also included the Integrated Risk Information System (IRIS) in its FY 2013 High Risk Report (GAO-13-283). In FY 2014, GAO completed a third review of the IRIS program.

Agency Response: The EPA agrees that statutory changes are needed to enable the agency to successfully meet its goal of ensuring chemical safety now and into the future. The Administration has put forward a set of essential principles for reforming chemicals management legislation that will modernize and strengthen the tools available in TSCA to increase confidence that chemicals used in commerce are safe (<http://www.epa.gov/oppt/existingchemicalspubs/principles.html>).

However, until legislative reform takes place, the EPA has adopted and is following an Existing Chemicals Strategy released in February 2012, which outlines a comprehensive approach for prioritizing chemicals for risk assessment and risk reduction, increasing the public's access to chemical data and advancing innovation safer products and green chemistry. Integral to this approach are the key steps of identifying chemicals for assessment, collecting and making effective use of chemical data, and pursuing action to reduce risks posed by existing chemicals found to pose unreasonable risks to human health and the environment.

The EPA has taken a number of specific steps to strengthen its chemical safety work within existing authorities. Among them are the following:

- EPA has identified 83 TSCA Work Plan Chemicals for assessment under TSCA to help focus and direct activities of the Existing Chemicals Program over the FY 2014-2018 Strategic Plan cycle. Significant progress has already been made on assessments for an initial group of seven Work Plan Chemicals, including a final risk assessment for Trichloroethylene released June 2014.
- EPA is filling information gaps on existing chemicals by taking a range of TSCA information gathering actions (including the Chemical Data Reporting Rule and test rules), by expanding electronic reporting of Pre-Manufacture Notices (PMNs) and other submissions under TSCA, by improving public access to non-confidential chemical information via the agency's new online ChemView database, and by reviewing, and where appropriate, challenging: 1) new submissions under TSCA where Confidential Business Information is claimed in health and safety studies, and 2) all CBI cases submitted prior to August 2010 (the work on the more than 22,000 prior CBI submissions is scheduled for completion a year ahead of schedule in FY 2014).

Improving IRIS. EPA's ability to protect public health and the environment depends on credible and timely assessments of the risks posed by toxic chemicals. EPA is implementing significant program enhancements, including formal intra-agency identification and priority setting of assessments, assessment streamlining, expanded stakeholder engagement, and strengthened peer review, as described below.

In 2008, GAO expressed concern that the IRIS database was at serious risk of becoming obsolete because EPA had been unable to keep its approximately 550 existing assessments current or complete new assessments of important chemicals of concern. In 2009, GAO identified EPA's Integrated Risk Information System (IRIS) Program as a high risk area needing broad-based transformation. Previously, GAO has acknowledged that a combination of factors hindered EPA from finalizing assessments, including (1) two new mandatory reviews of IRIS assessments by the Office of Management and Budget (OMB) and other federal agencies (April 10, 2008 process); (2) EPA management decisions, such as delaying some assessments to await new research or analyses; and (3) the compounding effect of delays—even one delay can have a domino effect, requiring the process to essentially be repeated to incorporate changing science.

GAO's 2011 and 2013 High Risk Reports stressed the need for effective implementation of the 2009 IRIS process changes and reiterated the importance of completing timely and credible assessments, decreasing the backlog of ongoing assessments, and addressing issues concerning clarity and transparency. In May 2009, the EPA Administrator announced a new streamlined IRIS process that addressed issues of transparency, program management, and timeliness. Due to the 2009 IRIS process change, comments received from the interagency reviews of draft IRIS assessments are now posted on the IRIS website and available for the public to view.

From May 2009 (when the new IRIS process went into place) to December 2014, NCEA completed 28 IRIS assessments. These completions included some of the Agency's highest priorities such as trichloroethylene, tetrachloroethylene, and dioxin (noncancer). The most recent completions include Libby amphibole asbestos, biphenyl, 1,4-dioxane, and methanol (non-cancer). NCEA has also made significant progress on several other high profile assessments including formaldehyde, inorganic arsenic, chromium VI, and benzo[a]pyrene. In addition, EPA's IRIS Program is developing assessments of health effects for chemicals found in environmental mixtures such as polycyclic aromatic hydrocarbons (PAHs), phthalates, and polychlorinated biphenyls (PCBs).

In 2014, EPA's regulatory program (e.g. air, water, toxics, Superfund) and regional offices were formally requested to identify their programmatic needs for IRIS assessments, and the basis for the need. Information gathered is being analyzed to develop a coordinated and comprehensive multi-year workplan for IRIS Program activities and assessments, thereby positioning the IRIS Program to be well-targeted to provide timely, state of the art assessments in support of EPA programs. This effort directly addresses GAO's recommendation that the EPA "*have a clear strategy that formalizes intra-agency coordination and priority.*" The following enhancements and actions, with some already being implemented or completed, address many of GAO's concerns including issues related to transparency, and development of timely, credible assessments:

- Sponsored an NRC review of the IRIS assessment development process and the changes being implemented or planned by EPA.
- Identified and prioritized EPA regulatory and regional program needs for IRIS assessments. Since June 2014, the IRIS Program has held 4 cross-agency meetings with program and regional offices to identify and prioritize a multi-year IRIS plan. The IRIS Program also meets monthly with representatives from program and regional offices to identify and discuss general issues regarding ongoing and future IRIS assessments.
- Incorporated the public release of materials for chemicals in the early stages of assessment development. Since July 2013, the IRIS Program has publicly released materials for 14 chemicals as part of the IRIS Process, including inorganic arsenic, hexavalent chromium, and several phthalates.
- Incorporated public meetings early in the assessment development process to identify available scientific information and any data gaps for the chemical being assessed. Since December 2013, the IRIS Program has held 5 IRIS Bimonthly Public Science Meetings which allow the public the opportunity to provide input and participate in discussions about problem formulation, preliminary assessment materials, and draft

IRIS assessments. Additionally, EPA has partnered with the National Academies' National Research Council (NRC) to identify independent scientific experts to supplement public discussion of scientific issues.

- Increased the number of scientific workshops on critical issues in risk assessment. Since July 2013, the IRIS Program has held 4 state-of-the-science workshops on topics including systematic review, the relevance of mouse lung tumor development in mice to humans, the reduction of hexavalent chromium in the gastrointestinal tract, and issues relevant to assessing health hazards of formaldehyde inhalation.
- Strengthened practices for peer review, including evaluating conflicts of interest for the peer reviewers, and establishing a standing committee of EPA's Science Advisory Board (SAB), the Chemical Assessment Advisory Committee (CAAC), to review IRIS assessments. In June and July 2014, the SAB CAAC met to review the draft IRIS assessments of trimethylbenzenes and ammonia (inhalation), respectively. The IRIS Program also released the draft IRIS assessments of benzo[a]pyrene and ethylene oxide to the SAB CAAC in 2014.
- Increased the use of IRIS website to share information about assessment schedules and public meetings.
- Issued "stopping rules" to help ensure that IRIS assessments are not delayed by new research findings or ongoing debate of scientific issues after certain process points have passed.

The IRIS Program is rolling out the enhancements to individual assessments dependent on their state of development. The full suite of enhancements is being implemented only in those assessments which are just beginning so that we do not delay those near the end of development. EPA engaged the NRC to review the IRIS assessment development process and to obtain feedback on the changes to IRIS that have been implemented or are planned. The final NRC report, released in June 2014, found that the IRIS Program has moved forward steadily in planning for and implementing changes in each element of the assessment process. The report also notes that EPA has made substantial improvements to the IRIS Program in a short time. The NRC specifically noted that, "overall, the committee finds that substantial improvements in the IRIS process have been made, and it is clear that EPA has embraced and is acting on the recommendations in the NRC formaldehyde report."

7. Improving Processes for Conditional Registration of Pesticides and Considering Children's Health

Summary of Challenge: The GAO highlights vulnerabilities in the Conditional Registration of Pesticides that could result in human health impacts. Vulnerabilities include inaccurate data and recordkeeping, insufficient tracking of conditional registrations, and limited management oversight to ensure that regulatory actions are not misclassified as conditional or unconditional registrations. The GAO also reports that the EPA has not taken the steps necessary to integrate children's health in the rulemaking process.

Agency Response: The agency has taken many actions to address this management challenge. It has upgraded its network of databases to allow regulatory staff to respond

quickly to requests for pesticide active ingredients, to determine which registrations are conditional, and to look up the status of data due to the agency. There are new codes for identifying data related to conditional registration conditions and new standard operating procedures in development for data entry. Training on these should help to identify conditional registration properly in the database. Furthermore, the agency has revised its webpage on conditional registrations, including a table showing all pesticide active ingredients initially registered under conditional registration authority from FY 2000 to present. This action is one more step toward a fully automated tracking system for conditional registration data.

In addition, the agency's Offices of Children's Health and Pesticides Program have executed a Memorandum of Understanding that will enable the Office of Children's Health to engage effectively and efficiently in the agency's process of risk assessment and decision-making for tolerances that could pose a significant risk to children's health.

8. Oversight of Delegations to States / Diminished Capacity of States to Implement Federal Environmental Programs

Summary of Challenge: While progress has been made, including a cross-agency strategy in its 2014-2018 Strategic Plan on a new era of partnerships, the EPA's oversight of state programs remains a management challenge. The OIG notes the agency's inadequate and inconsistent oversight of state program implementation across environmental statutes and the absence of national baselines. The GAO has concerns about the consequences of budget cuts and the ability of states to fulfill core program requirements.

Agency Response: In its FY 2014 Action Plan (<http://www2.epa.gov/planandbudget/fy-2014-cross-agency-strategies-action-plans>) for its Cross-Agency Strategy on partnerships, the EPA committed to collaborate with states to identify opportunities to redefine the EPA-state oversight relationship and improve the effectiveness and efficiency of state-federal interactions in EPA's oversight of state delegated programs. The agency completed an assessment of ongoing initiatives and near and long-term ideas for improving the oversight process for National Pollutant Discharge Elimination System (NPDES), Title V, and RCRA Subtitle C permitting programs. Through discussions on advances and innovations in program management and oversight, EPA identified draft principles for effective oversight that will inform 2015 discussions with states.

Direct oversight of delegated and approved Clean Air Act (CAA) programs is the responsibility of each regional office, a role for which the national air program office provides support and assistance when necessary and appropriate. The EPA's Office of Air and Radiation (OAR) is co-chairing a cross-agency workgroup to identify common principles and best practices that may enhance the effectiveness and efficiency of oversight practices across several delegated programs, including the CAA Title V operating permit program. The national program is looking for ways to reduce the states' administrative burden by implementing such changes as cost-effective, streamlined administrative processes for the State Implementation Plan; rules written to minimize state burdens; electronic emissions reporting for sources; delayed deployment of the near-road monitoring network; and priorities established with states in EPA's annual National

Program Guidance. As part of the cross-agency effort, OAR will work with regions to implement improvements in the Title V program. In addition, OAR incorporates state oversight responsibilities into the Annual Commitment System suite of regional performance measures. These measures track completion of Title V program evaluations and regions' reviews of draft permits that will be issued by states.

EPA's regional offices have primary responsibility for Permit Quality Reviews of authorized state NPDES programs. Some recent improvements to the review process by regional offices include: improved processes for setting water quality-based phosphorus effluent limits in three states (Region 2); prioritized corrective measures, and tracking of Tier 1 (high priority) actions for the U.S. Virgin Islands authorized NPDES program (Region 2); implementation of a process to prioritize review of state-issued NPDES permits utilizing a selection tool intended to identify permits that have a greater environmental and community impact (Region 6).

EPA's Office of Water is working cooperatively with states in other ways. Region 9 is working with the Hawaii Department of Health to improve financial management of the Hawaii Drinking Water State Revolving Fund (DWSRF). Hawaii has had one of the highest percentages of unliquidated obligations of any state DWSRF, and Region 9 is actively overseeing the program to ensure available funds are spent quickly and financial processes are modified to improve future performance. The EPA's Region 2 office is providing technical assistance to states impacted by Hurricane Sandy by reviewing states' resource needs for rebuilding their wastewater infrastructure and for design of green infrastructure and resilient reconstruction.

9. Enhancing Information Technology Security to Combat Cyber Threats

***Summary of Challenge:** According to the OIG, EPA's information security challenges stem from four key areas: 1) risk management planning, 2) security information and event management tool implementation, 3) computer security incident response capability and network operation integration, and 4) computer security incident response capability relationship building. The OIG believes that management oversight underlies all four areas and is needed to ensure comprehensive implementation of the information security program throughout the agency, including offices' execution of EPA policies, procedures, and practices.*

Agency Response: *The EPA acknowledges that advanced persistent cyber threats pose a significant challenge. The agency has undertaken a number of actions, including implementing specific automated tools to address cyber security challenges. The following highlights activities that EPA is conducting under the four challenge areas:*

Strengthening user authentication

- The EPA continues to seek out strong user authentication and identification practices for its Network Directory Services System (DSS) to strengthen security. For example, the agency is reviewing users with container administrator access rights and reducing the number of users per program or regional office with this level of access to no more than three.

- The agency conducts continuous monitoring of privileged user access to the DSS, including roles, responsibilities, and procedures, to ensure that the activities of privileged users are appropriate.

Correcting known weaknesses in incident response capability

- The EPA has deployed a Security Information and Event Management tool and continues to expand its field of coverage to encompass as many enterprise assets as possible.
- The agency's Computer Security Incident Response Capability sends security alerts with actionable instructions and milestones. Critical security issues are also reported in daily briefings to senior management.

Developing a vulnerability remediation program

- The EPA has implemented a process to communicate weaknesses identified during audits, assessments, vulnerability scans, and other oversight activities.
- Remediation activities from audits, continuous monitoring assessments, and server vulnerability scans are tracked via the Plan of Action & Milestone (POA&M) Monitoring and Validation Process. Remediation activities are reviewed and validated, and results reported monthly to Senior Information Officers, Information Management Officers, and Information Security Officers.
- The agency also conducts monthly vulnerability scans and transmits the results to Information Security Officers and system owners for remediation according to agency policy.

Developing a strategy to analyze needed and current skill set for personnel with significant security responsibilities

- The EPA is developing role-based training (RBT) and credentialing programs that encompass all agency roles with significant information security responsibilities. Roles have been documented using standard terminology and definitions of responsibilities.
- A database has been developed to map the information security training to EPA roles, resulting in the ability to define a training curriculum for each role. External sources of training are also incorporated into the RBT program.
- A new set of EPA-specific credentials for information security roles is in development.

10. EPA Needs to Improve Its Workload Analysis to Accomplish Its Mission Efficiently and Effectively

Summary of Challenge: The OIG has raised concerns about overall agency and specific program workforce and workload planning: specifically, that the agency does a poor job of estimating how many full-time employees are needed to complete particular tasks (workforce planning) and what skills, people and/or organizations are needed to complete the tasks (workload planning). The OIG asserts the EPA has not collected the data nor developed the analytical methods to measure workload and workforce needs. The OIG recommends the EPA strengthen its workforce and workload controls, policies, procedures and methods.

Agency Response: The EPA does not believe that existing federal government workload models are appropriate to plan for EPA’s workload, which is highly variable, non-linear. The agency believes that workload models are more suited for highly replicable processes and, furthermore, that during a time of shrinking resources it is not practical to calculate “optimal” staffing levels.

The EPA is focusing its efforts on streamlining critical, detail-oriented and process-oriented functions, such as permit or grant writing, to better understand workflows associated with those tasks and to gain efficiencies during this fiscally challenging time. The EPA is applying lessons learned from its survey of 1,000+ frontline managers, benchmarking of 23 other agencies' efforts, and reviews of water and air permitting workloads. For EPA, the goal of workload analysis tools is not to allocate resources or to come up with a hypothetical total workforce “need.” Rather, the goal is to better understand work and processes and estimate the critical tasks that take up the most time. This perspective provides a crucial aid to help plan and target Lean, business process re-engineering and other management planning efforts.

In FY 2014, EPA incorporated workload guidance into its draft Funds Control Manual and analyzed grants specialist and project officer workloads. All of EPA's regions and program offices developed in-depth plans for critical occupations and future skill needs. In FY 2015, the agency is using workload analysis tools to support efforts to assess the reasonableness of grants management and project officer workload after the staffing level reduction of the last few years.

11. Improved Oversight of Time and Attendance, Computer Usage and Real Property Management

Summary of Challenge: Recent events and activities indicate a possible “culture of complacency” among some supervisors at the EPA regarding time and attendance controls, employee computer usage, and real property management. As stewards of taxpayer dollars, EPA managers must emphasize and reemphasize the importance of compliance and ethical conduct throughout the agency and ensure it is embraced at every level of the organization.

Agency Response: The agency has made significant and permanent enhancements to internal controls over the past fiscal year to address OIG’s concerns.

For time and attendance (T&A), the agency enhanced its payroll system, PeoplePlus, with new controls. The system now:

- Generates automatic reminders for employees, managers and supervisors to submit and approve time cards on time;
- No longer allows an "approve all" feature for managers, forcing them to review every employee’s T&A individually;
- Automatically monitors and requires documentation when an employee's time is entered and/or approved by alternates for three or more pay periods per quarter;
- Verifies that employees enter their time correctly, timekeepers verify and supervisors certify;
- No longer allows default pay, ensuring that only employees who are in a legitimate pay status receive their pay.

- Increases the review of T&A to ensure timecards are coded properly.

For employee travel, the agency:

- Created a new framework for approval of executive travel and payroll;
- Created new controls for high-dollar high-risk travel and above-per-diem lodging;
- Strengthened travel-related policies in a new guidance on premium class travel areas, including the 14 hour rule, "mission critical" travel, and travel made with reasonable accommodations considerations;
- Developed a new checklist, located on EPA's intranet, to guide travel approvers; and
- Implemented a new travel system, Concur. The agency is applying the new controls and policies alongside the new system and offering associated training.

Regarding Real Property management, triggered by the OIG's concern over the management and oversight of property in the EPA's headquarters' main warehouse in Landover, Maryland, the agency issued and amended various policy and guidance documents. Changes include:

- Revised standard operating procedures for warehouse operations and property management;
- Issued a security plans that covers surveillance and CCTV footage retention;
- Discontinued document shredding services to reduce document susceptibility to fraud and abuse;
- Expanded requirements for solicited warehouse inventory and management services; and
- Established regular site visits by senior management to ensure internal controls are effective and in compliance with operating policies and procedures.

EPA USER FEE PROGRAM

In FY 2016, the EPA will have several user fee programs in operation. These user fee programs and proposals are as follows below:

Current Fees: Pesticides

Fees authorized by the Federal Insecticide, Fungicide, and Rodenticide Act of 1988, as amended by Public Law 112-177, will expire on September 30, 2017.

- **Pesticides Maintenance Fee**

The Maintenance Fee provides funding for the Reregistration and Registration Review programs and a certain percentage supports the processing of applications involving inert ingredients and expedited processing of similar applications, such as fast track amendments. In FY 2016, the EPA expects to collect approximately \$27.8 million from this fee program.

- **Enhanced Registration Services**

Entities seeking to register pesticides for use in the United States pay a fee at the time the registration action request is submitted to the EPA specifically for the accelerated pesticide registration decision service. This process has introduced new pesticides to the market more quickly. In FY 2016, the EPA expects to collect approximately \$11 million from this fee program.

Current Fees: Other

- **Pre-Manufacturing Notification Fee**

The Pre-Manufacturing Notification (PMN) fee is collected for the review and processing of new chemical pre-manufacturing notifications submitted to the EPA by the chemical industry. These fees are paid at the time of submission of the PMN for review by the EPA's Toxic Substances program. PMN fees are authorized by the Toxic Substances Control Act and contain a cap on the amount the Agency may charge for a PMN review. Fees collected for this activity are deposited in the U.S. Treasury. The EPA estimates that \$1.1 million will be deposited in FY 2016.

- **Lead Accreditation and Certification Fee**

The Toxic Substances Control Act, Title IV, Section 402(a)(3), mandates the development of a schedule of fees to cover the costs of administering and enforcing the standards and regulations for persons operating lead training programs accredited under the Section 402/404 rule and for lead-based paint contractors certified under this rule. The training programs ensure that lead paint abatement and renovation professionals are properly trained and certified. Fees collected for this activity are deposited in the U.S. Treasury. The EPA estimates that \$11 million will be deposited in FY 2016.

Current Fees: Other

- **Motor Vehicle and Engine Compliance Program Fee**

This fee is authorized by the Clean Air Act of 1990 and is administered by the Air and Radiation Program. Fee collections began in August 1992. Initially, this fee was imposed on manufacturers of light-duty vehicles, light- and heavy-duty trucks, and motorcycles. The fees cover the EPA's cost of certifying new engines and vehicles and monitoring compliance of in-use engines and vehicles. In 2004, the EPA promulgated a rule that updated existing fees and established fees for newly-regulated vehicles and engines. The fees established for new compliance programs also are imposed on manufacturers of heavy-duty, in-use, and non-road vehicles and engines, including large diesel and gas equipment (earthmovers, tractors, forklifts, compressors, etc.), handheld and non-handheld utility engines (chainsaws, weed-whackers, leaf-blowers, lawnmowers, tillers, etc.), marine (boat motors, watercraft, jet-skis), locomotive, aircraft and recreational vehicles (off-road motorcycles, all-terrain vehicles, snowmobiles). In 2009, the EPA added fees for evaporative requirements for non-road engines. The EPA intends to apply certification fees to additional industry sectors as new programs are developed. In FY 2016, the EPA expects to collect approximately \$22 million from this fee program.

Fee Proposals: Other

- **Pre-Manufacturing Notification Fee: Revisions**

Under the current fee structure, the agency will collect around \$1.1 million in FY 2015. Legislative language will be submitted to Congress shortly after the submission of the FY 2016 President's Budget which proposes to remove the statutory cap in the Toxic Substances Control Act on Pre-Manufacturing Notification (PMN) Fees to collect an additional \$4.5 million beginning in FY 2016 (raising the total collected in FY 2016 to \$5.6 million – approximately 40 percent of the cost of administering the New Chemicals Program). Fees collected for this activity are deposited in the U.S. Treasury.

- **TSCA Confidential Business Information Management Fee: New**

The Toxic Substances Control Act of 1976 (TSCA) provides the EPA with the authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Information directed to the EPA through TSCA may be claimed under TSCA section 14(a) as confidential business information (CBI). The EPA incurs direct costs to manage TSCA CBI. These costs relate to the management and maintenance of a headquarters CBI repository (Confidential Business Information Center), separate division and regional office depositories, a stand-alone secure e-communications system and data base structure (CBI LAN), a CBI procedural protection program, physical security (Secure Storage Areas), and CBI reviews and sanitizations.

The EPA presently does not have the authority to directly recoup these costs from all submitters of TSCA CBI information. Legislative language will be submitted to Congress shortly after the submission of the FY 2016 President's Budget, which will allow for the Agency to charge fees

from TSCA CBI submitters to defray a portion of the EPA's administrative costs to manage CBI documents received under all sections of TSCA, and to establish in the Treasury of the United States a revolving fund, to be known as the 'Toxic Substances Control Act Confidential Business Information Management Fund,' into which CBI Fee collections would be deposited for use in managing TSCA CBI data and without fiscal year limitation and without further appropriation. Upon amendment to TSCA Section 26, the EPA would charge fees to defray approximately 40 percent yearly (or between \$4.4 million and \$5.7 million) of the direct costs of running this program.

- **Hazardous Waste Electronic Manifest**

On October 5, 2012, the President signed the Hazardous Waste Electronic Manifest Establishment Act (Public Law 112-195). The Act provided for the electronic submission of hazardous waste manifests to the EPA and established a mechanism for financing the development and operation of the program through user fees. The Resource Conservation and Recovery Act (RCRA) requires hazardous waste handlers to document information on the waste's generator, destination, quantity, and route. The current tracking system relies upon paper manifests. An electronic manifest system (e-Manifest) will increase transparency and public safety, making information on hazardous waste movement more accessible to the EPA, states, and the public. As part of the agency's goal to reduce the burden on regulated entities, where feasible, the EPA is developing a program to electronically collect manifests to reduce the time and cost associated with complying with regulations governing the transportation of hazardous waste. When fully implemented, e-Manifest is estimated to reduce the reporting burden for firms regulated under RCRA's hazardous waste provisions by \$75 million annually.

WORKING CAPITAL FUND

In FY 2016, the agency will be in its twentieth year of operation of the Working Capital Fund (WCF). It is a revolving fund, authorized by law to finance a cycle of operations, where the costs of goods and services provided are charged to users on a fee-for-service basis. The funds received are available without fiscal year limitation, to continue operations and to replace capital equipment. The EPA's WCF was implemented under the authority of Section 403 of the Government Management Reform Act of 1994 and EPA's FY 1997 Appropriations Act. Permanent WCF authority was contained in the agency's FY 1998 Appropriations Act.

The Chief Financial Officer (CFO) initiated the WCF in FY 1997 as part of an effort to: (1) be accountable to agency offices, the Office of Management and Budget, and the Congress; (2) increase the efficiency of the administrative services provided to program offices; and (3) increase customer service and responsiveness. The agency has a WCF board which provides policy and planning oversight and advises the CFO regarding the WCF financial position. The Board, chaired by the Associate Chief Financial Officer, is composed of twenty-three permanent members from the program and regional offices.

In FY 2016, there will be ten agency activities provided under the WCF. These are the agency's information technology and telecommunications operations, managed by the Office of Environmental Information; agency postage costs, background investigations and Cincinnati voice and data services, managed by the Office of Administration and Resources Management; the agency's core accounting system, time and attendance system, employee relocation services, conference planning services and budget formulation system, managed by the Office of the Chief Financial Officer; and the agency's continuity of operations site managed by the Office of Solid Waste and Emergency Response.

The agency's FY 2016 budget request includes resources for these ten activities in each National Program Manager's submission, totaling approximately \$225 million. These estimated resources may be increased to incorporate program office's additional service needs during the operating year. To the extent that these increases are subject to Congressional reprogramming notifications, the agency will comply with all applicable requirements. In FY 2016, the agency will continue to market its information technology and relocation services to other federal agencies in an effort to deliver high quality services external to the EPA, which will result in lower costs to EPA customers.

In FY 2016, there are two project increases included. The funding for background investigations, an important element of maintaining the safety and security of the workforce, has been allocated an additional \$7.7 million to fund the planned new five year cycle for updating investigations on all personnel. This amount is new to the WCF but includes \$3.4 million that was previously funded through contracts and other mechanisms rather than WCF. Because the exact pattern of need for background investigations varies as personnel arrive and depart, funding for the investigations has been distributed across the program projects that are the most FTE intensive. The funding for switches replacement is \$3 million. These funds are housed in the Facilities Infrastructure and Operations and the IT/Data Management program projects.

Other funding increases and shifts have been included in the FY 2016 WCF plan that relate to the necessary telecommunications and computer support needed by every employee. The base costs for this package of services has increased somewhat over the last three years, and funding has been revised to incorporate this changes, which include additional cybersecurity costs. As part of an overall review and rebalancing of these costs, funds have been shifted across program projects to reflect FTE changes as well.

Environmental Protection Agency

ACRONYMS for STATUTORY AUTHORITY

ADA: Americans with Disabilities Act

ADEA: Age Discrimination in Employment Act

AEA: Atomic Energy Act, as amended, and Reorganization Plan #3

AHERA: Asbestos Hazard Emergency Response Act

AHPA: Archaeological and Historic Preservation Act

APA: Administrative Procedures Act

ARRA: American Recovery and Reinvestment Act

ASHAA: Asbestos in Schools Hazard Abatement Act

ASTCA: Antarctic Science, Tourism, and Conservation Act

BEACH Act of 2000: Beaches Environmental Assessment and Coastal Health Act

BRERA: Brownfields Revitalization and Environmental Restoration Act

CAA: Clean Air Act

CAAA: Clean Air Act Amendments

CAIR: Clean Air Interstate Rule

CCA: Clinger Cohen Act

CCAA: Canadian Clean Air Act

CEPA: Canadian Environmental Protection Act

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act (1980)

CFOA: Chief Financial Officers Act

CFR: Code of Federal Regulations

CICA: Competition in Contracting Act

CRA: Civil Rights Act

CSA: Computer Security Act

CWA: Clean Water Act (1972)

CWAP: Clean Water Action Plan

CWPPR: Coastal Wetlands Planning, Protection, and Restoration Act of 1990

CWSRF: Clean Water State Revolving Fund

CZARA: Coastal Zone Management Act Reauthorization Amendments

CZMA: Coastal Zone Management Act

DPA: Deepwater Ports Act

DREAA: Disaster Relief and Emergency Assistance Act

DWSRF: Drinking Water State Revolving Fund

ECRA: Economic Cleanup Responsibility Act

EFOIA: Electronic Freedom of Information Act

EISA: Energy Independence and Security Act of 2007

EPAct: Energy Policy Act of 2005

EPAA: Environmental Programs Assistance Act

EPAAR: Environmental Protection Agency Acquisition Regulation

EPCA: Energy Policy and Conservation Act

EPCRA: Emergency Planning and Community Right to Know Act (1986)

ERD&DAA: Environmental Research, Development and Demonstration Authorization Act

ESA: Endangered Species Act

ESECA: Energy Supply and Environmental Coordination Act

FACA: Federal Advisory Committee Act

FAIR: Federal Activities Inventory Reform Act

FASA: Federal Acquisition Streamlining Act (1994)

FCMA: Fishery Conservation and Management Act

FEPCA: Federal Environmental Pesticide Control Act; enacted as amendments to FIFRA.

FFDCA: Federal Food, Drug, and Cosmetic Act

FGCAA: Federal Grant and Cooperative Agreement Act

FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act (1972)

FLPMA: Federal Land Policy and Management Act

FMFIA: Federal Managers' Financial Integrity Act (1982)

FOIA: Freedom of Information Act

FPA: Federal Pesticide Act

FPAS: Federal Property and Administration Services Act

FPPA: Federal Pollution Prevention Act

FPR: Federal Procurement Regulation

FQPA: Food Quality Protection Act (1996)

FRA: Federal Register Act

FSA: Food Security Act

FSMA: Food Safety Modernization Act

FTTA: Federal Technology Transfer Act

FUA: Fuel Use Act

FWCA: Fish and Wildlife Coordination Act

FWPCA: Federal Water Pollution and Control Act (aka CWA)

GISRA: Government Information Security Reform Act

GMRA: Government Management Reform Act

GPRA: Government Performance and Results Act (1993)

HMTA: Hazardous Materials Transportation Act

HSWA: Hazardous and Solid Waste Amendments of 1984

IGA: Inspector General Act

IPA: Intergovernmental Personnel Act

IPIA: Improper Payments Information Act

ISTEA: Intermodal Surface Transportation Efficiency Act

ITMRA: Information Technology Management Reform Act of 1995-aka Clinger/Cohen Act

LPA-US/MX-BR: 1983 La Paz Agreement on US/Mexico Border Region

MPPRCA: Marine Plastic Pollution, Research and Control Act of 1987

MPRSA: Marine Protection Research and Sanctuaries Act

NAAEC: North American Agreement on Environmental Cooperation

NAAQS: National Ambient Air Quality Standard

NAWCA: North American Wetlands Conservation Act

NEPA: National Environmental Policy Act

NHPA: National Historic Preservation Act

NIPDWR: National Interim Primary Drinking Water Regulations

NISA: National Invasive Species Act of 1996

ODA: Ocean Dumping Act

OMTR: Open Market Trading Rule

OPA: Oil Pollution Act of 1990

OWBPA: Older Workers Benefit Protection Act

PBA: Public Building Act

PFCRA: Program Fraud Civil Remedies Act

PHSA: Public Health Service Act

PLIRRA: Pollution Liability Insurance and Risk Retention Act

PR: Privacy Act

PRA: Paperwork Reduction Act

PRIA: Pesticide Registration Improvement Act

PRIEA: Pesticide Registration Improvement Extension Act of 2012 (known as PRIA 3)

PRIRA: Pesticide Registration Improvement Renewal Act

QCA: Quiet Communities Act

RCRA: Resource Conservation and Recovery Act of 1976

RFA: Regulatory Flexibility Act

RICO: Racketeer Influenced and Corrupt Organizations Act

RLBPHRA: Residential Lead-Based Paint Hazard Reduction Act

SARA: Superfund Amendments and Reauthorization Act of 1986

SBLRBREERA: Small Business Liability Relief and Brownfields Revitalization and Environmental Restoration Act

SBREFA: Small Business Regulatory Enforcement Fairness Act of 1996

SDWA: Safe Drinking Water Act

SICEA: Steel Industry Compliance Extension Act

SMCRA: Surface Mining Control and Reclamation Act

SPA: Shore Protection Act of 1988

SWDA: Solid Waste Disposal Act

SWTR: Surface Water Treatment Rule

TCA: Tribal Cooperative Agreement

TSCA: Toxic Substances Control Act

UMRA: Unfunded Mandates Reform Act

UMTRLWA: Uranium Mill Tailings Radiation Land Withdrawal Act

USC: United States Code

USTCA: Underground Storage Tank Compliance Act

WQA: Water Quality Act of 1987

WRDA: Water Resources Development Act

WSRA: Wild and Scenic Rivers Act

WWWQA: Wet Weather Water Quality Act of 2000

FY 2016 STAG CATEGORICAL PROGRAM GRANTS

Statutory Authority and Eligible Uses
(Dollars in Thousands)

Grant Title	Statutory Authorities	Eligible Recipients	Eligible Uses	Goal/ Objective	FY 2014 Actuals Dollars (X1000)	FY 2014 Enacted Dollars (X1000)	FY 2015 Enacted Dollars (X1000)	FY 2016 President's Request (X1000)
State and Local Air Quality Management	CAA, Section 103	Air pollution control agencies as defined in section 302(b) of the CAA	S/L monitoring and data collection activities in support of the PM _{2.5} monitoring network and associated program costs.	Goal 1, Obj. 2	\$41,868.0	\$41,875.0	\$41,875.0	\$38,250.0
State and Local Air Quality Management	CAA, Section 103	Air pollution control agencies as defined in section 302(b) of the CAA	S/L monitoring and data collection activities in support of the air toxics monitoring.	Goal 1, Obj. 2	\$4,674.0	\$4,959.0	\$8,959.0	\$8,759.0
State and Local Air Quality Management	CAA, Section 103	Air pollution control agencies as defined in section 302(b) of the CAA	S/L monitoring procurement activities in support of the NAAQS.	Goal 1, Obj. 2	\$5,079.0	\$5,079.0	\$3,971.0	\$3,971.0

Grant Title	Statutory Authorities	Eligible Recipients	Eligible Uses	Goal/ Objective	FY 2014 Actuals Dollars (X1000)	FY 2014 Enacted Dollars (X1000)	FY 2015 Enacted Dollars (X1000)	FY 2016 President's Request (X1000)
State and Local Air Quality Management	CAA, Sections 103, 105, 106	Air pollution control agencies as defined in section 302(b) of the CAA; Multi- jurisdictional organizations (non-profit organizations whose boards of directors or membership is made up of CAA section 302(b) agency officers and whose mission is to support the continuing environmental programs of the States); Interstate air quality control region designated pursuant to section 107 of the CAA or of implementing section 176A, or section 184 NOTE: only the Ozone Transport Commission is eligible.	Carrying out the traditional prevention and control programs required by the CAA and associated program support costs, including monitoring activities (section 105); Coordinating or facilitating a multi- jurisdictional approach to carrying out the traditional prevention and control programs required by the CAA (sections 103 and 106); Supporting training for CAA section 302(b) air pollution control agency staff (sections 103 and 105); Supporting research, investigative, and demonstration projects (section 103).	Goal 1, Obj. 2	\$177,565.0	\$175,706.0	\$172,814.0	\$191,649.0
				Goal 1, Obj. 1	\$0.0	\$0.0	\$0.0	\$17,500.0
					\$600.0	\$600.0	\$600.0	\$600.0
					Section 106 grants	Section 106 grants	Section 106 grants	Section 106 grants
				Total:	\$229,786.0	\$228,219.0	\$228,219.0	\$268,229.0

Grant Title	Statutory Authorities	Eligible Recipients	Eligible Uses	Goal/ Objective	FY 2014 Actuals Dollars (X1000)	FY 2014 Enacted Dollars (X1000)	FY 2015 Enacted Dollars (X1000)	FY 2016 President's Request (X1000)
Tribal Air Quality Management	CAA, Sections 103 and 105; Tribal Cooperative Agreements (TCA) in annual Appropriations Acts.	Tribes; Intertribal Consortia; State/Tribal College or University	Conducting air quality assessment activities to determine a Tribe's need to develop a CAA program; Carrying out the traditional prevention and control programs required by the CAA and associated program costs; Supporting CAA training for Federally- recognized Tribes.	Goal 1, Obj. 2	\$8,442.0 Section 103 grants	\$8,829.0 Section 103 grants	\$8,829.0 Section 103 grants	\$8,829.0 Section 103 grants
					\$4,000.0 Section 105 grants	\$4,000.0 Section 105 grants	\$4,000.0 Section 105 grants	\$4,000.0 Section 105 grants
					Total: \$12,442.0	Total: \$12,829.0	Total: \$12,829.0	Total: \$12,829.0
Radon	TSCA, Sections 10 and 306	State Agencies, Tribes, Intertribal Consortia	Assist in the development and implementation of programs for the assessment and mitigation of radon.	Goal 1, Obj. 2	\$8,603.0	\$8,051.0	\$8,051.0	\$0.0

Grant Title	Statutory Authorities	Eligible Recipients	Eligible Uses	FY 2012 Goal/ Objective	FY 2014 Actuals Dollars (X1000)	FY 2014 Enacted Dollars (X1000)	FY 2015 Enacted Dollars (X1000)	FY 2016 President's Request Dollars (X1000)
Water Pollution Control (Section 106)	FWPCA, as amended, Section 106; TCA in annual Appropriations Acts.	States, Tribes, Intertribal Consortia, Interstate Agencies	Develop and carry out surface and ground water pollution control programs, including NPDES permits, TMDLs, WQ standards, monitoring, and NPS control activities.	Goal 2, Obj. 2	\$233,609.0	\$230,806.0	\$230,806.0	\$249,164.0
Nonpoint Source (NPS – Section 319)	FWPCA, as amended, Section 319(h); TCA in annual Appropriations Acts.	States, Tribes, Intertribal Consortia	Implement EPA-approved State and Tribal nonpoint source management programs and fund priority projects as selected by the state.	Goal 2, Obj. 2	\$155,708.0	\$159,252.0	\$159,252.0	\$164,915.0
Wetlands Program Development	FWPCA, as amended, Section 104 (b)(3); TCA in annual Appropriations Acts.	States, Local Governments, Tribes, Interstate Organizations, Intertribal Consortia, Non-Profit Organizations	To develop new wetland programs or enhance existing programs for the protection, management, and restoration of wetland resources.	Goal 2, Obj. 2	\$12,291.0	\$14,661.0	\$14,661.0	\$19,661.0

Grant Title	Statutory Authorities	Eligible Recipients	Eligible Uses	FY 2012 Goal/ Objective	FY 2014 Actuals Dollars (X1000)	FY 2014 Enacted Dollars (X1000)	FY 2015 Enacted Dollars (X1000)	FY 2016 President's Request Dollars (X1000)
Public Water System Supervision (PWSS)	SDWA, Section 1443(a); TCA in annual Appropriations Acts.	States, Tribes, Intertribal Consortia	Assistance to implement and enforce National Primary Drinking Water Regulations to ensure the safety of the Nation's drinking water resources and to protect public health.	Goal 2, Obj. 1	\$102,693.0	\$101,963.0	\$101,963.0	\$109,700.0
Underground Injection Control (UIC)	SDWA, Section 1443(b); TCA in annual Appropriations Acts.	States, Tribes, Intertribal Consortia	Implement and enforce regulations that protect underground sources of drinking water by controlling Class I-V underground injection wells.	Goal 2, Obj. 1	\$10,471.0	\$10,506.0	\$10,506.0	\$10,506.0

Grant Title	Statutory Authorities	Eligible Recipients	Eligible Uses	FY 2012 Goal/ Objective	FY 2014 Actuals Dollars (X1000)	FY 2014 Enacted Dollars (X1000)	FY 2015 Enacted Dollars (X1000)	FY 2016 President's Request Dollars (X1000)
Beaches Protection	BEACH Act of 2000; TCA in annual Appropriations Acts.	States, Tribes, Intertribal Consortia, Local Governments	Develop and implement programs for monitoring and notification of conditions for coastal recreation waters adjacent to beaches or similar points of access that are used by the public.	Goal 2, Obj. 1	\$9,629.0	\$9,549.0	\$9,549.0	\$0.0
Hazardous Waste Financial Assistance	RCRA, Section 3011; FY 1999 Appropriations Act (PL 105-276); TCA in annual Appropriations Acts.	States, Tribes, Intertribal Consortia	Development & Implementation of Hazardous Waste Programs	Goal 3, Obj. 2	\$69,769.0	\$71,161.0	\$69,877.0	\$69,877.0
				Goal 3, Obj. 3	\$28,384.0	\$28,532.0	\$29,816.0	\$29,816.0
				Total	\$98,153.0	\$99,693.0	\$99,693.0	\$99,693.0

Grant Title	Statutory Authorities	Eligible Recipients	Eligible Uses	FY 2012 Goal/ Objective	FY 2014 Actuals Dollars (X1000)	FY 2014 Enacted Dollars (X1000)	FY 2015 Enacted Dollars (X1000)	FY 2016 President's Request Dollars (X1000)
Brownfields	CERCLA, as amended by the Small Business Liability Relief and Brownfields Revitalization Act, Section 128(a) (42 U.S.C. 9628); GMRA (1990); FGCAA.	States, Tribes, Intertribal Consortia	Build and support Brownfields programs which will assess contaminated properties, oversee private party cleanups, provide cleanup support through low interest loans, and provide certainty for liability related issues.	Goal 3, Obj. 1	\$47,623.0	\$47,745.0	\$47,745.0	\$49,500.0
Underground Storage Tanks (UST)	SWDA, Section 2007(f), 42 U.S.C. 6916(f)(2); EPAct of 2005, Title XV – Ethanol and Motor Fuels, Subtitle B – Underground Storage Tank Compliance, Sections 1521-1533, P.L. 109-58, 42 U.S.C. 15801.	States	Provide funding for States' underground storage tanks and to support direct UST implementation programs.	Goal 3, Obj. 2	\$1,536.0	\$1,498.0	\$1,498.0	\$1,498.0

Grant Title	Statutory Authorities	Eligible Recipients	Eligible Uses	FY 2012 Goal/ Objective	FY 2014 Actuals Dollars (X1000)	FY 2014 Enacted Dollars (X1000)	FY 2015 Enacted Dollars (X1000)	FY 2016 President's Request Dollars (X1000)
Pesticides Program Implementation	FIFRA, Sections 20 and 23; the FY 1999 Appropriations Act (PL 105-276); FY 2000 Appropriations Act (P.L. 106-74); TCA in annual Appropriations Acts.	States, Tribes, Intertribal Consortia	Implement the following programs through grants to States, Tribes, partners, and supporters for implementation of pesticide programs, including: Certification and Training (C&T) / Worker Protection, Endangered Species Protection Program (ESPP) Field Activities, Pesticides in Water, Tribal Program.	Goal 4, Obj. 1	\$12,283.0 – States formula <hr/> \$1,383.0 HQ Programs: - Tribal - PREP - Regional Ag Grants <hr/> Total: \$13,666.0	\$11,424.0 – States formula <hr/> \$1,277.0 HQ Programs: - Tribal - PREP - School IPM - - <hr/> Total: \$12,701.0	\$11,423.0 – States formula <hr/> \$1,278.0 HQ Programs: - Tribal - PREP - School IPM <hr/> Total: \$12,701.0	\$11,423.0 – States formula <hr/> \$1,778.0 HQ Programs: - Tribal - PREP - School IPM <hr/> Total: \$13,201.0

Grant Title	Statutory Authorities	Eligible Recipients	Eligible Uses	FY 2012 Goal/ Objective	FY 2014 Actuals Dollars (X1000)	FY 2014 Enacted Dollars (X1000)	FY 2015 Enacted Dollars (X1000)	FY 2016 President's Request Dollars (X1000)
Lead	TSCA, Sections 10 and 404 (g); FY 2000 Appropriations Act (P.L. 106-74); TCA in annual Appropriations Acts.	States, Tribes, Intertribal Consortia	Implement the lead-based paint activities in the Training and Certification program through EPA-authorized State, territorial and Tribal programs and, in areas without authorization, through direct implementation by the Agency. Activities conducted as part of this program include issuing grants for the training and certification of individuals and firms engaged in lead-based paint abatement and inspection activities and the accreditation of qualified training providers.	Goal 4, Obj. 1	\$11,911.0 404(g) State/ Tribal Certification \$1,968.0 404(g) Direct Implementation Total: \$13,879.0	\$12,067.0 404(g) State/ Tribal Certification \$1,982.0 404(g) Direct Implementation Total: \$14,049.0	\$12,067.0 404(g) State/ Tribal Certification \$1,982.0 404(g) Direct Implementation Total: \$14,049.0	\$12,067.0 404(g) State/ Tribal Certification \$1,982.0 404(g) Direct Implementation Total: \$14,049.0

Grant Title	Statutory Authorities	Eligible Recipients	Eligible Uses	FY 2012 Goal/ Objective	FY 2014 Actuals Dollars (X1000)	FY 2014 Enacted Dollars (X1000)	FY 2015 Enacted Dollars (X1000)	FY 2016 President's Request Dollars (X1000)
Toxic Substances Compliance	TSCA, Sections 28(a) and 404 (g); TCA in annual Appropriations Acts.	States, Territories, Federally recognized Indian Tribes, Intertribal Consortia, and Territories of the U.S.	Assist in developing, maintaining, and implementing compliance monitoring programs for PCBs, asbestos, and Lead Based Paint. In addition, enforcement actions by :1) the Lead Based Paint program and 2) States that obtained a "waiver" under the Asbestos program.	Goal 5, Obj. 1		\$1,634.0 Lead _____ \$3,285.0 PCB/Asbestos Total: \$4,919.0	In 2015, funding is not split between lead and PCB/Asbestos. Total: \$4,919.0	In 2016, funding is not split between lead and PCB/Asbestos. Total: \$4,919.0
Pesticide Enforcement	FIFRA § 23(a)(1); FY 2000 Appropriations Act (P.L. 106-74); TCA in annual Appropriations Acts.	States, Territories, Tribes, Intertribal Consortia	Assist in implementing cooperative pesticide enforcement programs.	Goal 5, Obj. 1	\$18,387.0	\$18,050.0	18,050.0	\$18,050.0

Grant Title	Statutory Authorities	Eligible Recipients	Eligible Uses	FY 2012 Goal/ Objective	FY 2014 Actuals Dollars (X1000)	FY 2014 Enacted Dollars (X1000)	FY 2015 Enacted Dollars (X1000)	FY 2016 President's Request Dollars (X1000)
National Environmental Information Exchange Network (NEIEN, aka "the Exchange Network")	Provided by the annual appropriations for the EPA. As appropriate, CAA, Section 103; CWA, Section 104; RCRA, Section 8001; FIFRA, Section 20; TSCA, Sections 10 and 28; MPRSA, Section 203; SDWA, Section 1442; Indian Environmental General Assistance Program Act of 1992, as amended; FY 2000 Appropriations Act (P.L. 106-74); Pollution Prevention Act of 1990, Section 6605; FY 2002 Appropriations Act and FY 2003 Appropriations Acts.	States, U.S. Territories, Federally Recognized Tribes and Native Villages, Interstate Agencies, Tribal Consortia, Other Agencies with Related Environmental Information Activities.	Helps States, U.S. Territories, Tribes, and intertribal consortia develop the information management and technology (IM/IT) capabilities they need to participate in the Exchange Network, to continue and expand data-sharing programs, and to improve access to environmental information. These grants supplement the Exchange Network investments already being made by States and Tribes. E-Enterprise grants will help states and Tribes build tools, services, and capabilities that will provide E-Enterprise services for delegated programs.	N/A	\$12,453.0	\$9,646.0	\$9,646.0	\$25,346.0

Grant Title	Statutory Authorities	Eligible Recipients	Eligible Uses	FY 2012 Goal/ Objective	FY 2014 Actuals Dollars (X1000)	FY 2014 Enacted Dollars (X1000)	FY 2015 Enacted Dollars (X1000)	FY 2016 President's Request Dollars (X1000)
Pollution Prevention	Pollution Prevention Act of 1990, Section 6605; TSCA Section 10; FY 2000 Appropriations Act (P.L. 106-74); TCA in annual Appropriations Acts.	States, Tribes, Intertribal Consortia	Provides assistance to States and State entities (i.e., colleges and universities) and Federally-recognized Tribes and intertribal consortia in order to deliver pollution prevention technical assistance to small and medium-sized businesses. A goal of the program is to assist businesses and industries with identifying improved environmental strategies and solutions for reducing waste at the source.	Goal 4, Obj. 2	\$4,853.0	\$4,765.0	4,765.0	\$4,765.0

Grant Title	Statutory Authorities	Eligible Recipients	Eligible Uses	FY 2012 Goal/ Objective	FY 2014 Actuals Dollars (X1000)	FY 2014 Enacted Dollars (X1000)	FY 2015 Enacted Dollars (X1000)	FY 2016 President's Request Dollars (X1000)
Tribal General Assistance Program	Indian Environmental General Assistance Program Act (42 U.S.C. 4368b); TCA in annual Appropriations Acts.	Tribal Governments, Intertribal Consortia	Plan and develop Tribal environmental protection programs.	Goal 3, Obj. 4	\$68,241.0	\$65,476.0	\$65,476.0	\$96,375.0

**Environmental Protection Agency
FY 2016 Annual Performance Plan and Congressional Justification**

**PROGRAM PROJECTS BY PROGRAM AREA
(Dollars in Thousands)**

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	2016 Pres Bud vs. 2015 Enacted
Science & Technology				
Clean Air and Climate				
Clean Air Allowance Trading Programs	\$8,220.0	\$8,298.0	\$7,808.0	(\$490.0)
Climate Protection Program	\$11,794.6	\$8,018.0	\$8,124.0	\$106.0
Federal Support for Air Quality Management	\$5,689.7	\$6,923.0	\$8,493.0	\$1,570.0
Federal Vehicle and Fuels Standards and Certification	\$84,638.8	\$93,302.0	\$100,419.0	\$7,117.0
Subtotal, Clean Air and Climate	\$110,343.1	\$116,541.0	\$124,844.0	\$8,303.0
Indoor Air and Radiation				
Indoor Air: Radon Program	\$219.3	\$198.0	\$0.0	(\$198.0)
Radiation: Protection	\$2,586.6	\$1,984.0	\$2,160.0	\$176.0
Radiation: Response Preparedness	\$4,162.2	\$3,526.0	\$4,043.0	\$517.0
Reduce Risks from Indoor Air	\$245.5	\$289.0	\$412.0	\$123.0
Subtotal, Indoor Air and Radiation	\$7,213.6	\$5,997.0	\$6,615.0	\$618.0
Enforcement				
Forensics Support	\$14,088.7	\$13,669.0	\$14,398.0	\$729.0
Homeland Security				
Homeland Security: Critical Infrastructure Protection	\$10,207.3	\$10,324.0	\$11,871.0	\$1,547.0
Homeland Security: Preparedness, Response, and Recovery	\$27,840.5	\$26,256.0	\$25,674.0	(\$582.0)
Homeland Security: Protection of EPA Personnel and Infrastructure	\$545.0	\$542.0	\$605.0	\$63.0
Subtotal, Homeland Security	\$38,592.8	\$37,122.0	\$38,150.0	\$1,028.0
IT / Data Management / Security				
IT / Data Management	\$3,860.8	\$3,089.0	\$3,196.0	\$107.0
Operations and Administration				
Facilities Infrastructure and Operations	\$75,013.3	\$68,339.0	\$79,170.0	\$10,831.0
Pesticides Licensing				
Pesticides: Protect Human Health from Pesticide Risk	\$3,660.5	\$3,197.0	\$3,266.0	\$69.0
Pesticides: Protect the Environment from Pesticide Risk	\$1,960.5	\$2,316.0	\$3,896.0	\$1,580.0
Pesticides: Realize the Value of Pesticide Availability	\$517.2	\$514.0	\$529.0	\$15.0

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	2016 Pres Bud vs. 2015 Enacted
Subtotal, Pesticides Licensing	\$6,138.2	\$6,027.0	\$7,691.0	\$1,664.0
Research: Air, Climate and Energy				
Research: Air, Climate and Energy	\$99,429.8	\$91,906.0	\$100,342.0	\$8,436.0
Research: Safe and Sustainable Water Resources				
Research: Safe and Sustainable Water Resources	\$120,085.3	\$107,434.0	\$111,022.0	\$3,588.0
Research: Sustainable Communities				
Research: Sustainable and Healthy Communities	\$160,800.7	\$149,975.0	\$139,172.0	(\$10,803.0)
Research: Chemical Safety and Sustainability				
Human Health Risk Assessment	\$37,813.5	\$39,423.0	\$39,277.0	(\$146.0)
Research: Chemical Safety and Sustainability				
<i>Endocrine Disruptors</i>	\$15,833.3	\$16,253.0	\$15,417.0	(\$836.0)
<i>Computational Toxicology</i>	\$29,481.1	\$21,409.0	\$33,775.0	\$12,366.0
<i>Research: Chemical Safety and Sustainability (other activities)</i>	\$54,153.8	\$49,845.0	\$52,253.0	\$2,408.0
Subtotal, Research: Chemical Safety and Sustainability	\$99,468.2	\$87,507.0	\$101,445.0	\$13,938.0
Subtotal, Research: Chemical Safety and Sustainability	\$137,281.7	\$126,930.0	\$140,722.0	\$13,792.0
Water: Human Health Protection				
Drinking Water Programs	\$3,750.9	\$3,519.0	\$3,766.0	\$247.0
Congressional Priorities				
Water Quality Research and Support Grants	\$2,450.1	\$4,100.0	\$0.0	(\$4,100.0)
Total, Science & Technology	\$779,049.0	\$734,648.0	\$769,088.0	\$34,440.0
Environmental Program & Management				
Clean Air and Climate				
Clean Air Allowance Trading Programs	\$18,756.3	\$18,231.0	\$18,378.0	\$147.0
Climate Protection Program	\$90,702.3	\$95,436.0	\$109,625.0	\$14,189.0
Federal Stationary Source Regulations	\$26,777.0	\$25,000.0	\$37,545.0	\$12,545.0
Federal Support for Air Quality Management	\$121,018.7	\$120,572.0	\$157,339.0	\$36,767.0
Stratospheric Ozone: Domestic Programs	\$5,121.6	\$4,941.0	\$4,963.0	\$22.0
Stratospheric Ozone: Multilateral Fund	\$8,901.0	\$8,928.0	\$9,057.0	\$129.0
Subtotal, Clean Air and Climate	\$271,276.9	\$273,108.0	\$336,907.0	\$63,799.0
Indoor Air and Radiation				
Indoor Air: Radon Program	\$1,790.0	\$3,055.0	\$3,386.0	\$331.0

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	2016 Pres Bud vs. 2015 Enacted
Radiation: Protection	\$8,945.8	\$8,576.0	\$9,517.0	\$941.0
Radiation: Response Preparedness	\$2,844.2	\$2,454.0	\$3,317.0	\$863.0
Reduce Risks from Indoor Air	\$12,437.0	\$13,552.0	\$14,057.0	\$505.0
Subtotal, Indoor Air and Radiation	\$26,017.0	\$27,637.0	\$30,277.0	\$2,640.0
Brownfields				
Brownfields	\$23,372.2	\$25,593.0	\$29,599.0	\$4,006.0
Compliance				
Compliance Monitoring	\$101,883.5	\$101,665.0	\$122,424.0	\$20,759.0
Enforcement				
Civil Enforcement	\$173,835.8	\$170,854.0	\$185,756.0	\$14,902.0
Criminal Enforcement	\$48,136.0	\$46,745.0	\$51,917.0	\$5,172.0
Environmental Justice	\$6,636.8	\$6,737.0	\$13,971.0	\$7,234.0
NEPA Implementation	\$15,869.1	\$16,301.0	\$17,612.0	\$1,311.0
Subtotal, Enforcement	\$244,477.7	\$240,637.0	\$269,256.0	\$28,619.0
Geographic Programs				
Geographic Program: Chesapeake Bay	\$61,335.5	\$73,000.0	\$70,000.0	(\$3,000.0)
Geographic Program: Gulf of Mexico	\$5,424.2	\$4,482.0	\$3,908.0	(\$574.0)
Geographic Program: Lake Champlain	\$1,399.0	\$4,399.0	\$1,399.0	(\$3,000.0)
Geographic Program: Long Island Sound	\$3,944.9	\$3,940.0	\$2,893.0	(\$1,047.0)
Geographic Program: Other				
<i>Lake Pontchartrain</i>	\$948.0	\$948.0	\$948.0	\$0.0
<i>Southeast New England Coastal Watershed Restoration Program (SNECWRP)</i>	\$2,000.0	\$5,000.0	\$5,000.0	\$0.0
<i>Geographic Program: Other (other activities)</i>	\$1,426.7	\$1,445.0	\$939.0	(\$506.0)
Subtotal, Geographic Program: Other	\$4,374.7	\$7,393.0	\$6,887.0	(\$506.0)
Great Lakes Restoration	\$288,870.0	\$300,000.0	\$250,000.0	(\$50,000.0)
Geographic Program: South Florida	\$2,343.5	\$1,704.0	\$1,340.0	(\$364.0)
Geographic Program: San Francisco Bay	\$5,312.4	\$4,819.0	\$3,988.0	(\$831.0)
Geographic Program: Puget Sound	\$25,009.8	\$28,000.0	\$29,998.0	\$1,998.0
Subtotal, Geographic Programs	\$398,014.0	\$427,737.0	\$370,413.0	(\$57,324.0)
Homeland Security				
Homeland Security: Communication and Information	\$4,073.4	\$3,771.0	\$4,142.0	\$371.0
Homeland Security: Critical Infrastructure Protection	\$648.0	\$964.0	\$1,014.0	\$50.0
Homeland Security: Protection of EPA Personnel and Infrastructure	\$4,805.0	\$5,460.0	\$5,118.0	(\$342.0)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	2016 Pres Bud vs. 2015 Enacted
Subtotal, Homeland Security	\$9,526.4	\$10,195.0	\$10,274.0	\$79.0
Information Exchange / Outreach				
State and Local Prevention and Preparedness	\$13,802.7	\$15,666.0	\$27,783.0	\$12,117.0
TRI / Right to Know	\$13,765.0	\$14,616.0	\$14,691.0	\$75.0
Tribal - Capacity Building	\$13,749.5	\$14,063.0	\$15,600.0	\$1,537.0
Executive Management and Operations	\$47,471.0	\$46,276.0	\$48,972.0	\$2,696.0
Environmental Education	\$7,520.3	\$8,702.0	\$10,969.0	\$2,267.0
Exchange Network	\$19,602.1	\$16,995.0	\$25,361.0	\$8,366.0
Small Minority Business Assistance	\$1,766.8	\$1,641.0	\$1,971.0	\$330.0
Small Business Ombudsman	\$1,604.0	\$2,031.0	\$2,296.0	\$265.0
Children and Other Sensitive Populations: Agency Coordination	\$5,888.0	\$6,548.0	\$8,035.0	\$1,487.0
Subtotal, Information Exchange / Outreach	\$125,169.4	\$126,538.0	\$155,678.0	\$29,140.0
International Programs				
US Mexico Border	\$3,607.7	\$2,978.0	\$3,307.0	\$329.0
International Sources of Pollution	\$6,673.7	\$6,938.0	\$7,245.0	\$307.0
Trade and Governance	\$5,761.3	\$5,484.0	\$6,009.0	\$525.0
Subtotal, International Programs	\$16,042.7	\$15,400.0	\$16,561.0	\$1,161.0
IT / Data Management / Security				
Information Security	\$5,861.0	\$6,309.0	\$6,666.0	\$357.0
IT / Data Management	\$90,118.6	\$84,227.0	\$96,395.0	\$12,168.0
Subtotal, IT / Data Management / Security	\$95,979.6	\$90,536.0	\$103,061.0	\$12,525.0
Legal / Science / Regulatory / Economic Review				
Integrated Environmental Strategies	\$14,012.7	\$12,724.0	\$21,937.0	\$9,213.0
Administrative Law	\$4,321.0	\$5,120.0	\$5,039.0	(\$81.0)
Alternative Dispute Resolution	\$1,262.4	\$1,397.0	\$1,452.0	\$55.0
Civil Rights / Title VI Compliance	\$9,315.3	\$11,070.0	\$11,793.0	\$723.0
Legal Advice: Environmental Program	\$42,816.4	\$42,027.0	\$52,411.0	\$10,384.0
Legal Advice: Support Program	\$14,231.3	\$16,907.0	\$18,662.0	\$1,755.0
Regional Science and Technology	\$2,338.2	\$2,176.0	\$2,941.0	\$765.0
Science Advisory Board	\$4,685.1	\$5,110.0	\$6,072.0	\$962.0
Regulatory/Economic-Management and Analysis	\$14,408.3	\$14,883.0	\$18,479.0	\$3,596.0
Subtotal, Legal / Science / Regulatory / Economic Review	\$107,390.7	\$111,414.0	\$138,786.0	\$27,372.0
Operations and Administration				

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	2016 Pres Bud vs. 2015 Enacted
Central Planning, Budgeting, and Finance	\$73,721.3	\$72,851.0	\$76,057.0	\$3,206.0
Facilities Infrastructure and Operations	\$305,366.3	\$310,399.0	\$312,180.0	\$1,781.0
Acquisition Management	\$34,537.6	\$30,761.0	\$37,974.0	\$7,213.0
Human Resources Management	\$39,052.3	\$43,843.0	\$51,344.0	\$7,501.0
Financial Assistance Grants / IAG Management	\$23,371.7	\$24,897.0	\$27,847.0	\$2,950.0
Subtotal, Operations and Administration	\$476,049.2	\$482,751.0	\$505,402.0	\$22,651.0
Pesticides Licensing				
Science Policy and Biotechnology	\$1,532.7	\$1,400.0	\$1,532.0	\$132.0
Pesticides: Protect Human Health from Pesticide Risk	\$50,633.7	\$55,698.0	\$60,019.0	\$4,321.0
Pesticides: Protect the Environment from Pesticide Risk	\$36,085.1	\$35,470.0	\$39,805.0	\$4,335.0
Pesticides: Realize the Value of Pesticide Availability	\$10,175.5	\$9,795.0	\$10,409.0	\$614.0
Subtotal, Pesticides Licensing	\$98,427.0	\$102,363.0	\$111,765.0	\$9,402.0
Resource Conservation and Recovery Act (RCRA)				
RCRA: Corrective Action	\$36,578.7	\$36,438.0	\$37,048.0	\$610.0
RCRA: Waste Management	\$58,104.9	\$59,958.0	\$63,413.0	\$3,455.0
RCRA: Waste Minimization & Recycling	\$9,213.5	\$8,481.0	\$10,781.0	\$2,300.0
Subtotal, Resource Conservation and Recovery Act (RCRA)	\$103,897.1	\$104,877.0	\$111,242.0	\$6,365.0
Toxics Risk Review and Prevention				
Endocrine Disruptors	\$5,638.5	\$7,553.0	\$4,259.0	(\$3,294.0)
Pollution Prevention Program	\$15,056.4	\$13,114.0	\$13,416.0	\$302.0
Toxic Substances: Chemical Risk Management	\$209.2	\$0.0	\$0.0	\$0.0
Toxic Substances: Chemical Risk Review and Reduction	\$56,133.9	\$58,135.0	\$56,304.0	(\$1,831.0)
Toxic Substances: Lead Risk Reduction Program	\$14,648.9	\$13,719.0	\$13,726.0	\$7.0
Subtotal, Toxics Risk Review and Prevention	\$91,686.9	\$92,521.0	\$87,705.0	(\$4,816.0)
Underground Storage Tanks (LUST / UST)				
LUST / UST	\$11,979.2	\$11,295.0	\$11,657.0	\$362.0
Water: Ecosystems				
National Estuary Program / Coastal Waterways	\$24,385.2	\$26,723.0	\$27,310.0	\$587.0
Wetlands	\$20,629.1	\$21,065.0	\$23,334.0	\$2,269.0
Subtotal, Water: Ecosystems	\$45,014.3	\$47,788.0	\$50,644.0	\$2,856.0
Water: Human Health Protection				
Beach / Fish Programs	\$1,505.4	\$2,015.0	\$750.0	(\$1,265.0)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	2016 Pres Bud vs. 2015 Enacted
Drinking Water Programs	\$95,283.5	\$96,492.0	\$125,018.0	\$28,526.0
Subtotal, Water: Human Health Protection	\$96,788.9	\$98,507.0	\$125,768.0	\$27,261.0
Water Quality Protection				
Marine Pollution	\$11,877.3	\$10,628.0	\$10,481.0	(\$147.0)
Surface Water Protection	\$198,879.2	\$199,789.0	\$238,818.0	\$39,029.0
Water Infrastructure Finance and Innovation	\$0.0	\$0.0	\$5,000.0	\$5,000.0
Subtotal, Water Quality Protection	\$210,756.5	\$210,417.0	\$254,299.0	\$43,882.0
Congressional Priorities				
Water Quality Research and Support Grants	\$12,700.0	\$12,700.0	\$0.0	(\$12,700.0)
Total, Environmental Program & Management	\$2,566,449.2	\$2,613,679.0	\$2,841,718.0	\$228,039.0
Inspector General				
Audits, Evaluations, and Investigations				
Audits, Evaluations, and Investigations	\$41,448.0	\$41,489.0	\$50,099.0	\$8,610.0
Total, Inspector General	\$41,448.0	\$41,489.0	\$50,099.0	\$8,610.0
Building and Facilities				
Homeland Security				
Homeland Security: Protection of EPA Personnel and Infrastructure	\$4,158.7	\$6,676.0	\$7,875.0	\$1,199.0
Operations and Administration				
Facilities Infrastructure and Operations	\$23,532.6	\$35,641.0	\$43,632.0	\$7,991.0
Total, Building and Facilities	\$27,691.3	\$42,317.0	\$51,507.0	\$9,190.0
Hazardous Substance Superfund				
Indoor Air and Radiation				
Radiation: Protection	\$1,992.1	\$1,985.0	\$2,180.0	\$195.0
Audits, Evaluations, and Investigations				
Audits, Evaluations, and Investigations	\$9,435.9	\$9,939.0	\$8,459.0	(\$1,480.0)
Compliance				
Compliance Monitoring	\$1,014.9	\$995.0	\$1,067.0	\$72.0
Enforcement				
Criminal Enforcement	\$7,430.4	\$7,243.0	\$7,643.0	\$400.0

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	2016 Pres Bud vs. 2015 Enacted
Environmental Justice	\$609.1	\$581.0	\$609.0	\$28.0
Forensics Support	\$2,291.2	\$1,083.0	\$1,124.0	\$41.0
Superfund: Enforcement	\$161,712.6	\$150,257.0	\$156,539.0	\$6,282.0
Superfund: Federal Facilities Enforcement	\$7,536.8	\$7,211.0	\$7,348.0	\$137.0
Subtotal, Enforcement	\$179,580.1	\$166,375.0	\$173,263.0	\$6,888.0
Homeland Security				
Homeland Security: Preparedness, Response, and Recovery	\$35,513.6	\$35,265.0	\$32,654.0	(\$2,611.0)
Homeland Security: Protection of EPA Personnel and Infrastructure	\$1,057.1	\$1,097.0	\$1,113.0	\$16.0
Subtotal, Homeland Security	\$36,570.7	\$36,362.0	\$33,767.0	(\$2,595.0)
Information Exchange / Outreach				
Exchange Network	\$1,383.0	\$1,328.0	\$1,366.0	\$38.0
IT / Data Management / Security				
Information Security	\$705.1	\$683.0	\$704.0	\$21.0
IT / Data Management	\$15,129.1	\$13,802.0	\$14,938.0	\$1,136.0
Subtotal, IT / Data Management / Security	\$15,834.2	\$14,485.0	\$15,642.0	\$1,157.0
Legal / Science / Regulatory / Economic Review				
Alternative Dispute Resolution	\$888.0	\$750.0	\$774.0	\$24.0
Legal Advice: Environmental Program	\$506.3	\$503.0	\$467.0	(\$36.0)
Subtotal, Legal / Science / Regulatory / Economic Review	\$1,394.3	\$1,253.0	\$1,241.0	(\$12.0)
Operations and Administration				
Central Planning, Budgeting, and Finance	\$21,723.1	\$22,352.0	\$24,277.0	\$1,925.0
Facilities Infrastructure and Operations	\$70,445.1	\$75,055.0	\$78,160.0	\$3,105.0
Acquisition Management	\$23,499.7	\$21,989.0	\$23,923.0	\$1,934.0
Human Resources Management	\$6,590.7	\$5,984.0	\$7,953.0	\$1,969.0
Financial Assistance Grants / IAG Management	\$3,221.4	\$2,725.0	\$3,027.0	\$302.0
Subtotal, Operations and Administration	\$125,480.0	\$128,105.0	\$137,340.0	\$9,235.0
Research: Sustainable Communities				
Research: Sustainable and Healthy Communities	\$14,450.2	\$14,032.0	\$12,220.0	(\$1,812.0)
Research: Chemical Safety and Sustainability				
Human Health Risk Assessment	\$3,113.9	\$2,843.0	\$2,831.0	(\$12.0)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	2016 Pres Bud vs. 2015 Enacted
Superfund Cleanup				
Superfund: Emergency Response and Removal	\$190,290.6	\$181,306.0	\$190,732.0	\$9,426.0
Superfund: EPA Emergency Preparedness	\$7,710.2	\$7,636.0	\$7,843.0	\$207.0
Superfund: Federal Facilities	\$23,610.5	\$21,125.0	\$26,265.0	\$5,140.0
Superfund: Remedial	\$555,236.7	\$501,000.0	\$539,618.0	\$38,618.0
Subtotal, Superfund Cleanup	\$776,848.0	\$711,067.0	\$764,458.0	\$53,391.0
Total, Hazardous Substance Superfund	\$1,167,097.3	\$1,088,769.0	\$1,153,834.0	\$65,065.0
Leaking Underground Storage Tanks				
Enforcement				
Civil Enforcement	\$642.4	\$620.0	\$627.0	\$7.0
Operations and Administration				
Central Planning, Budgeting, and Finance	\$677.0	\$421.0	\$440.0	\$19.0
Facilities Infrastructure and Operations	\$797.4	\$792.0	\$1,103.0	\$311.0
Acquisition Management	\$147.4	\$139.0	\$138.0	(\$1.0)
Subtotal, Operations and Administration	\$1,621.8	\$1,352.0	\$1,681.0	\$329.0
Underground Storage Tanks (LUST / UST)				
LUST / UST	\$10,031.9	\$9,240.0	\$9,409.0	\$169.0
LUST Cooperative Agreements	\$56,874.7	\$55,040.0	\$54,402.0	(\$638.0)
LUST Prevention	\$26,175.3	\$25,369.0	\$28,859.0	\$3,490.0
Subtotal, Underground Storage Tanks (LUST / UST)	\$93,081.9	\$89,649.0	\$92,670.0	\$3,021.0
Research: Sustainable Communities				
Research: Sustainable and Healthy Communities	\$327.7	\$320.0	\$348.0	\$28.0
Total, Leaking Underground Storage Tanks	\$95,673.8	\$91,941.0	\$95,326.0	\$3,385.0
Inland Oil Spill Programs				
Compliance				
Compliance Monitoring	\$143.9	\$139.0	\$155.0	\$16.0
Enforcement				
Civil Enforcement	\$2,396.9	\$2,413.0	\$2,424.0	\$11.0
Oil				
Oil Spill: Prevention, Preparedness and Response	\$13,620.3	\$14,409.0	\$18,524.0	\$4,115.0

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	2016 Pres Bud vs. 2015 Enacted
Operations and Administration				
Facilities Infrastructure and Operations	\$456.9	\$584.0	\$1,762.0	\$1,178.0
Research: Sustainable Communities				
Research: Sustainable and Healthy Communities	\$285.1	\$664.0	\$513.0	(\$151.0)
Total, Inland Oil Spill Programs	\$16,903.1	\$18,209.0	\$23,378.0	\$5,169.0
State and Tribal Assistance Grants				
State and Tribal Assistance Grants (STAG)				
Infrastructure Assistance: Alaska Native Villages	\$10,070.9	\$10,000.0	\$10,000.0	\$0.0
Brownfields Projects	\$97,731.5	\$80,000.0	\$110,000.0	\$30,000.0
Infrastructure Assistance: Clean Water SRF	\$1,547,252.7	\$1,448,887.0	\$1,116,000.0	(\$332,887.0)
Infrastructure Assistance: Drinking Water SRF	\$892,647.9	\$906,896.0	\$1,186,000.0	\$279,104.0
Infrastructure Assistance: Mexico Border	\$5,000.0	\$5,000.0	\$5,000.0	\$0.0
Diesel Emissions Reduction Grant Program	\$20,674.3	\$30,000.0	\$10,000.0	(\$20,000.0)
Targeted Airshed Grants	\$0.0	\$10,000.0	\$0.0	(\$10,000.0)
Subtotal, State and Tribal Assistance Grants (STAG)	\$2,573,377.3	\$2,490,783.0	\$2,437,000.0	(\$53,783.0)
Categorical Grants				
Categorical Grant: Nonpoint Source (Sec. 319)	\$155,708.1	\$159,252.0	\$164,915.0	\$5,663.0
Categorical Grant: Public Water System Supervision (PWSS)	\$102,692.9	\$101,963.0	\$109,700.0	\$7,737.0
Categorical Grant: State and Local Air Quality Management	\$229,785.7	\$228,219.0	\$268,229.0	\$40,010.0
Categorical Grant: Radon	\$8,602.9	\$8,051.0	\$0.0	(\$8,051.0)
Categorical Grant: Pollution Control (Sec. 106)				
<i>Monitoring Grants</i>	\$18,270.3	\$17,848.0	\$18,500.0	\$652.0
<i>Categorical Grant: Pollution Control (Sec. 106) (other activities)</i>	\$215,338.3	\$212,958.0	\$230,664.0	\$17,706.0
Subtotal, Categorical Grant: Pollution Control (Sec. 106)	\$233,608.6	\$230,806.0	\$249,164.0	\$18,358.0
Categorical Grant: Wetlands Program Development	\$12,290.5	\$14,661.0	\$19,661.0	\$5,000.0
Categorical Grant: Underground Injection Control (UIC)	\$10,470.6	\$10,506.0	\$10,506.0	\$0.0
Categorical Grant: Pesticides Program Implementation	\$13,665.6	\$12,701.0	\$13,201.0	\$500.0
Categorical Grant: Lead	\$13,878.6	\$14,049.0	\$14,049.0	\$0.0
Categorical Grant: Hazardous Waste Financial Assistance	\$98,153.1	\$99,693.0	\$99,693.0	\$0.0
Categorical Grant: Pesticides Enforcement	\$18,386.6	\$18,050.0	\$18,050.0	\$0.0
Categorical Grant: Pollution Prevention	\$4,853.4	\$4,765.0	\$4,765.0	\$0.0
Categorical Grant: Toxics Substances Compliance	\$4,951.7	\$4,919.0	\$4,919.0	\$0.0

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Bud	2016 Pres Bud vs. 2015 Enacted
Categorical Grant: Tribal General Assistance Program	\$68,241.1	\$65,476.0	\$96,375.0	\$30,899.0
Categorical Grant: Underground Storage Tanks	\$1,535.9	\$1,498.0	\$1,498.0	\$0.0
Categorical Grant: Tribal Air Quality Management	\$12,442.3	\$12,829.0	\$12,829.0	\$0.0
Categorical Grant: Environmental Information	\$12,453.0	\$9,646.0	\$25,346.0	\$15,700.0
Categorical Grant: Beaches Protection	\$9,628.6	\$9,549.0	\$0.0	(\$9,549.0)
Categorical Grant: Brownfields	\$47,622.6	\$47,745.0	\$49,500.0	\$1,755.0
Subtotal, Categorical Grants	\$1,058,971.8	\$1,054,378.0	\$1,162,400.0	\$108,022.0
Congressional Priorities				
Congressionally Mandated Projects	\$9,922.4	\$0.0	\$0.0	\$0.0
Total, State and Tribal Assistance Grants	\$3,642,271.5	\$3,545,161.0	\$3,599,400.0	\$54,239.0
Hazardous Waste Electronic Manifest System Fund				
Resource Conservation and Recovery Act (RCRA)				
RCRA: Waste Management	\$2,626.5	\$3,674.0	\$7,368.0	\$3,694.0
Total, Hazardous Waste Electronic Manifest System Fund	\$2,626.5	\$3,674.0	\$7,368.0	\$3,694.0
Rescission of Prior Year Funds	\$0.0	(\$40,000.0)	\$0.0	\$40,000.0
Hurricane Sandy Supplemental	\$570,086.7	\$0.0	\$0.0	\$0.0
TOTAL, EPA	\$8,909,296.4	\$8,139,887.0	\$8,591,718.0	\$451,831.0

*For ease of comparison, Superfund transfer resources for the audit and research functions are shown in the Superfund account.

DISCONTINUED PROGRAMS

NOTE: The EPA did not request funding for the Congressionally directed projects funded in FY 2015.

Congressionally Directed Projects (By Appropriation): (Dollars in Thousands)

Appropriation	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Budget	Change: 16 Pres Budget – 15 Enacted
EPM	\$12,700.0	\$12,700.0	\$0.0	(\$12,700.0)
S&T	\$2,450.1	\$4,100.0	\$0.0	(\$4,100.0)
STAG	\$9,922.4	\$10,000.0	\$0.0	(\$10,000.0)
Total	\$25,072.5	\$26,800.0	\$0.0	(\$26,800.0)

Toxic Substances: Chemical Risk Management

Program Area: Toxics Risk Review and Prevention

Goal: Ensuring the Safety of Chemicals and Preventing Pollution

Objective(s): Ensure Chemical Safety

(Dollars in Thousands)

	FY 2014 Actuals	FY 2015 Enacted	FY 2016 Pres Budget	FY 2016 Pres Bud v. FY 2015 Enacted
<i>Environmental Program & Management</i>	<i>\$209.2</i>	<i>\$0.0</i>	<i>\$0.0</i>	<i>\$0.0</i>
Total Budget Authority / Obligations	\$209.2	\$0.0	\$0.0	\$0.0
Total Workyears	0.2	0.0	0.0	0.0

Program Project Description:

The Chemical Risk Management (CRM) Program supports national efforts aimed at mitigating chemical risk and exposure through reductions in use and safe removal, disposal, and containment of certain prevalent, high-risk chemicals – known generally as legacy chemicals. Some of these chemicals were used widely in commerce and introduced into the environment before their risks were known. In recent years, the CRM Program has focused on ensuring proper use of polychlorinated biphenyls (PCBs), limiting exposures to PCBs in schools and other buildings, and encouraging the use of non-mercury products.

FY 2016 Activities and Performance Plan:

The EPA is not requesting funds to support this program in FY 2016.

Performance Targets:

There are no performance targets for this program.

FY 2016 Change from FY 2015 Enacted Budget (Dollars in Thousands):

- No change in program funding.

Statutory Authority:

Toxic Substances Control Act (TSCA), 15 U.S.C. 2601 et seq. -- Sections 1-31.

EXPECTED BENEFITS OF THE PRESIDENT'S E-GOVERNMENT INITIATIVES

Grants.gov

The Grants.gov initiative benefits the EPA and its grant programs by providing a single location to publish grant opportunities and application packages, and by providing a single site for the grants community to apply for grants using common forms, processes and systems. The EPA believes that the central site raises the visibility of its grants opportunities to a wider diversity of applicants.

The grants community benefits from savings in postal costs, paper and envelopes. Applicants save time in searching for agency grant opportunities and in learning the application systems of various agencies. In order to streamline the application process, the EPA offers Grants.gov application packages for mandatory State grants (i.e., Continuing Environmental Program Grants).

Fiscal Year	Account Code	EPA Contribution (in thousands)
2015	020-00-04-00-04-0160-24	\$282.0
2016	020-00-04-00-04-0160-24	\$272.0

Integrated Acquisition Environment

The Integrated Acquisition Environment (IAE) is currently comprised of nine government-wide automated applications and/or databases that have contributed to streamlining the acquisition business process across the government. In FY 2012, GSA began the process of consolidating the systems into one central repository called the System for Award Management (SAM). Until the consolidation is complete, the EPA continues to leverage the usefulness of some of these systems via electronic linkages between the EPA's acquisition system and the IAE shared systems. Other IAE systems are not linked directly to the EPA's acquisition system, but benefit the agency's contracting staff and vendor community as stand-alone resources.

The EPA's acquisition system uses data provided by SAM, to replace internally maintained vendor data. Contracting officers can download vendor-provided representation and certification information electronically, via SAM as well which allows vendors to submit this information once, rather than separately for every contract proposal. Contracting officers are able to access the Excluded Parties List (EPLS), via SAM to identify vendors that are debarred from receiving contract awards.

Contracting officers also can link to the Wage Determination Online (WDOL) to obtain information required under the Service Contract Act and the Davis-Bacon Act. The EPA's acquisition system links to the Federal Procurement Data System for submission of contract actions at the time of award. FPDS provides public access to government-wide contract information. The Electronic Subcontracting Reporting System (eSRS) supports vendor submission of subcontracting data for contracts identified as requiring this information. The EPA submits synopses of procurement opportunities over \$25,000 to the Federal Business Opportunities (FBO) website, where the information is accessible to the public. Vendors use this website to identify business opportunities in federal contracting.

As of FY 2016, the IAE Loans and Grants E-Gov initiative will be consolidated into the IAE E-Gov initiative. As a result, the following text applies:

The Federal Funding Accountability and Transparency Act (FFATA) require agencies to unambiguously identify contract, grant, and loan recipients and determine parent/child relationship, address information, etc. The FFATA taskforce determined that using both the Dun and Bradstreet (D&B) DUNS Number (standard identifier for all business lines) and Central Contractor Registration (CCR) [the single point of entry for data collection and dissemination] are the most appropriate way to accomplish this. This fee will pay for the EPA's use of this service in the course of reporting grants and/or loans. Funds may also be used to consolidate disparate contract and grant systems into the new System for Award Management (SAM).

Fiscal Year	Account Code	EPA Service Fee (in thousands)
2015	020-00-01-16-04-0230-24	\$149.0
2016	020-00-01-16-04-0230-24	\$245.0

Enterprise Human Resource Integration

The Enterprise Human Resource Integration's (EHRI) Electronic Official Personnel Folder (eOPF) is designed to provide a consolidated repository that digitally documents the employment actions and history of individuals employed by the federal government. The EPA has completed migration to the federal eOPF system. This initiative benefits the agency by reducing file room maintenance costs and improves customer service for employees and productivity for HR specialists. Employees have 24/7 access to view and print their official personnel documents and HR specialists are no longer required to manually file, retrieve or mail personnel actions to employees thus improved productivity.

Fiscal Year	Account Code	EPA Service Fee (in thousands)
2015	020-00-01-16-03-1219-24	\$292.0
2016	020-00-01-16-03-1219-24	\$293.0

USA Jobs

U.S. Office of Personnel Management (OPM) USA Jobs simplifies the process of locating and applying for federal jobs. USA Jobs is a standard job announcement and resume builder website. It is the one-stop for federal job seekers to search for and apply to positions on-line. This integrated process benefits citizens by providing a more efficient process to locate and apply for jobs, and assists federal agencies in hiring top talent in a competitive marketplace. The OPM USA Jobs initiative has increased job seeker satisfaction with the federal job application process and is helping the agency to locate highly-qualified candidates and improve response times to applicants.

The agency is required to integrate with USA Jobs, to eliminate the need for applicants to maintain multiple user IDs to apply for federal jobs across agencies. The vacancy announcement format has been improved for easier readability. The system can maintain up to five resumes per

applicant, which allows them to create and store resumes tailored to specific skills. In addition, USA Jobs has a notification feature that keeps applicants updated on the current status of the application, and provides a link to the agency website for detailed information. This self-help USA Jobs feature allows applicants to obtain up-to-date information on the status of their application upon request.

Fiscal Year	Account Code	EPA Service Fee (in thousands)
2015	020-00-01-16-04-1218-24	\$107.0
2016	020-00-01-16-04-1218-24	\$97.0

Human Resources Line of Business

The U.S. Office of Personnel Management (OPM) Human Resources Line of Business (HR LoB) provides the federal government the infrastructure to support pay-for-performance systems, modernized HR systems, and the core functionality necessary for the strategic management of human capital.

The OPM HR LoB offers common solutions that will enable federal departments and agencies to work more effectively, and provide managers and executives across the federal government an improved means to meet strategic objectives. The EPA will benefit by supporting an effective program management activity which evaluates provider performance, customer satisfaction, and compliance with program goals, on an ongoing basis.

Fiscal Year	Account Code	EPA Contribution (in thousands)
2015	020-00-01-16-04-1200-24	\$65.0
2016	020-00-01-16-04-1200-24	\$65.0

Geospatial Line of Business

The Geospatial Line of Business is an intergovernmental project to improve the ability of the public and government to use geospatial information to support the business of government and facilitate decision-making. This initiative will reduce EPA costs and improve agency operations in several areas.

During FY 2014, the Geospatial Line of Business resulted in the Geospatial Platform being operationalized with the Department of Interior as the managing partner. Two major planning efforts to advance the National Spatial Data Infrastructure (NSDI) were also completed – the development of an NSDI Strategic Plan and a National Geospatial Data (NGDA) Asset Management Plan. EPA played a major role in formulating the NGDA plan.

During FY 2015 and FY 2016, efforts will increase access to implement the NDGA plan and incorporate many national geospatial data and analytical services into the Geospatial Platform for federal agencies, their partners, and stakeholders. Over time, the EPA intends to use the Geospatial Platform on an increasing basis to obtain data and services for internal analytical purposes as well as to publish outward-facing geospatial capabilities to the public.

The EPA continues to be a leader in developing the vision and operational plans for the implementation of the A-16 Supplemental Guidance and the National Geospatial Platform. In FY 2016, the agency expects to continue to play an active role in shaping the direction of these important efforts. The EPA is expected to contribute to operation of the National Geospatial Platform in FY 2016. The intent is to reduce base costs by providing an opportunity for the EPA and other agencies to share approaches on procurement consolidation, include shared services for hosting geospatial data, services and applications.

Fiscal Year	Account Code	EPA Contribution (in thousands)
2015	020-00-01-16-04-3100-24	\$225.0
2016	020-00-01-16-04-3100-24	\$225.0

eRulemaking

The eRulemaking program is designed to enhance public access and participation in the regulatory process through electronic systems; reduce the burden on citizens and businesses in finding relevant regulations and commenting on proposed rulemaking actions; consolidate redundant docket systems; and improve agency regulatory processes and the timeliness of regulatory decisions.

The eRulemaking program's Federal Docket Management System (FDMS) currently supports 176 federal entities including all Cabinet-level Departments and independent rulemaking agencies, which collectively promulgate over 90 percent of all federal regulations each year. FDMS has simplified the public's participation in the rulemaking process and made the EPA's rulemaking business processes more accessible as well as transparent. FDMS provides the EPA's approximately 1,559 registered users with a secure, centralized electronic repository for managing the agency's rulemaking development via distributed management of data and robust role-based user access. The EPA posts regulatory and non-regulatory documents in *Regulations.gov* for public viewing, downloading, bookmarking, email notification and commenting. In FY2013, the EPA posted 1,225 rules and proposed rules, 984 *Federal Register* notices, and 39,900 public submissions in *Regulations.gov*. EPA also posted 17,711 documents that consisted of supporting and related materials associated with other postings. Overall, EPA provides public access to 767,900 documents in *Regulations.gov*.

Fiscal Year	Account Code	EPA Service Fee (in thousands)
2015	020-00-01-16-01-0060-24	\$1,000.0
2016	020-00-01-16-01-0060-24	\$941.0

Financial Management Line of Business

The Financial Management Line of Business (FM LoB) is a multi-agency effort whose goals include: achieving process improvements and cost savings in the acquisition, development, implementation, and operation of financial management systems. By incorporating the same FM LoB-standard processes as those used by central agency systems, interfaces among financial systems will be streamlined and the quality of information available for decision-making will be improved.

Fiscal Year	Account Code	EPA Contribution (in thousands)
2015	020-00-01-01-04-1100-24	\$96.0
2016	020-00-01-01-04-1100-24	\$96.0

Budget Formulation and Execution Line of Business

The Budget Formulation and Execution Line of Business (BFELoB) allows the EPA and other agencies to access budget-related benefits and services. The agency has the option to implement LoB-sponsored tools, training and services.

The EPA has benefited from the BFELoB by sharing valuable information on how systems and software being developed by the LoB have enhanced work processes. This effort has created a government-only capability for electronic collaboration (*Wiki*) in which the Budget Community website allows the EPA to share budget information internally, with OMB, and with other federal agencies. The agency also made contributions to the Human Capital Workgroup, participating in development of on-line training modules for budget activities – a valuable resource to all agency budget staff. The LoB has developed the capability to have secure, virtual on-line meetings where participants can view budget-related presentations from their workspace and participate in the discussion through a conference line. The LoB provides regularly scheduled symposia as an additional forum for EPA budget employees.

Fiscal Year	Account Code	EPA Contribution (in thousands)
2015	010-00-01-01-04-3200-24	\$75.0
2016	010-00-01-01-04-3200-24	\$75.0

FY 2014-2015 EPA AGENCY PRIORITY GOALS

Below are EPA's FY 2014-2015 Agency Priority Goals. Additional information on Priority Goals can be found on [Performance.gov](http://www.performance.gov). EPA also contributes to a number of Cross-Agency Priority (CAP) Goals. Detailed information on CAP goals can be found at: <http://www.performance.gov/>.

EPA Agency Priority Goals	Goal Leader(s)
<p>Reduce greenhouse gas emissions from cars and trucks Reduce greenhouse gas emissions from cars and trucks. Through September 30, 2015, EPA, in coordination with Department of Transportation's fuel economy standards program, will be implementing vehicle and truck greenhouse gas standards that are projected to reduce greenhouse gas (GHG) emissions by 6 billion metric tons and reduce oil consumption by about 12 billion barrels over the lifetime of the affected vehicles and trucks.</p>	Elizabeth A. Shaw, Deputy Assistant Administrator, Office of Air and Radiation
<p>Clean up contaminated sites to enhance the livability and economic vitality of communities By 2015, an additional 18,970 sites will be made ready for anticipated use protecting Americans and the environment one community at a time.</p>	Barry Breen, Deputy Assistant Administrator, Office of Solid Waste and Emergency Response
<p>Assess and reduce risks posed by chemicals and promote the use of safer chemicals in commerce By Sept 30, 2015, EPA will have completed more than 250 assessments of pesticides and other commercially available chemicals to evaluate risks they may pose to human health and the environment, including the potential for some of these chemicals to disrupt endocrine systems. These assessments are essential in determining whether products containing these chemicals can be used safely for commercial, agricultural and/or industrial uses.</p>	Louise P. Wise, Deputy Assistant Administrator, Office of Chemical Safety and Pollution Prevention
<p>Improve environmental outcomes and enhance service to the regulated community and the public By September 30, 2015 reduce reporting burdens to EPA by one million hours through streamlined regulations, provide real-time environmental data to at least two communities, and establish a new portal to service the regulated community and public.</p>	David Bloom, Deputy Chief Financial Officer, Office of the Chief Financial Officer
<p>Improve, restore, and maintain water quality by enhancing nonpoint source program leveraging, accountability, and on-the-ground effectiveness to address the Nation's largest sources of pollution By September 30, 2015, 100 percent of the states will have updated nonpoint source management programs that comport with the new Section 319 grant guidelines that will result in better targeting of resources</p>	Michael H. Shapiro, Deputy Assistant Administrator, Office of Water Office of Water

<p>through prioritization and increased coordination with USDA.</p>	
<p>Improve public health protection for persons served by small drinking water systems, which account for more than 97% of public water systems in the U.S., by strengthening the technical, managerial, and financial capacity of those systems By September 30, 2015, EPA will engage with an additional ten states (for a total of 30 states) and three tribes to improve small drinking water system capability to provide safe drinking water, an invaluable resource.</p>	<p>Michael H. Shapiro, Deputy Assistant Administrator, Office of Water Office of Water</p>

PROPOSED FY 2016 ADMINISTRATIVE PROVISIONS

To further clarify proposed Administrative Provisions that involve more than a simple annual extension or propose a modification to an existing provision, the following information is provided. Per the FY 2015 Omnibus Consolidated and Further Continuing Appropriations Act (P.L. 113-235), the EPA appreciates the flexibility to use no more than 25 percent of its CERCLA 104 (k) funding to address petroleum contaminated sites. In FY 2016, the EPA continues to request the flexibility to use up to 25 percent of its CERCLA104 (k) funding to address petroleum contaminated sites versus an exact 25 percent identified by statute.

Petroleum set aside for Brownfields Projects Grants

\$110,000,000 shall be to carry out section 104(k) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, including grants, interagency agreements, and associated program support costs: Provided, That not more than 25 percent of the amount appropriated to carry out section 104(k) of CERCLA shall be used for site characterization, assessment, and remediation of facilities described in section 101(39)(D)(ii)(II) of CERCLA;

Current statutory language requires that exactly 25 percent of Brownfields Projects grants be provided for petroleum cleanups. The proposed language gives the agency more flexibility to award grants to the highest-ranking proposals, regardless of the type of funding requested, while still setting aside money for petroleum cleanups.

FY 2016 ADMINISTRATOR'S PRIORITIES

The Administrator's priorities are allocated by program project in the FY 2016 President's Budget with a total of \$4.75 million in the Environmental and Program Management Account and \$250 thousand in the Science and Technology Account.

These funds which are set aside for the Administrator's priorities are contingency funds for the agency to use to address unforeseen issues that may arise during the year. These funds are distributed in various program projects across the budget and used during the operating plan to support critical unplanned issues.

The EPA will prepare a report, as directed by the FY 2015 Appropriations Bill Report Language, which will describe the use of the Administrator's priorities for FY 2014 funds.

FY 2016 President's Budget Funding for Administrator's Priorities (Dollars in Thousands)

Appropriation	Program Project	Dollars in Thousands
EPM	Acquisition Management	\$150
EPM	Brownfields	\$175
EPM	Children and Other Sensitive Populations: Agency Coordination	\$50
EPM	Civil Enforcement	\$180
EPM	Civil Rights / Title VI Compliance	\$75
EPM	Clean Air Allowance Trading Programs	\$100
EPM	Climate Protection Program	\$70
EPM	Compliance Monitoring	\$200
EPM	Criminal Enforcement	\$145
EPM	Drinking Water Programs	\$100
EPM	Environmental Justice	\$50
EPM	Exchange Network	\$75
EPM	Federal Stationary Source Regulations	\$100
EPM	Federal Support for Air Quality Management	\$130
EPM	Financial Assistance Grants / IAG Management	\$150
EPM	Human Resources Management	\$150
EPM	Integrated Environmental Strategies	\$75
EPM	International Sources of Pollution	\$50
EPM	IT / Data Management	\$200
EPM	Legal Advice: Environmental Program	\$100
EPM	Legal Advice: Support Program	\$75
EPM	LUST / UST	\$100
EPM	Marine Pollution	\$100

Appropriation	Program Project	Dollars in Thousands
EPM	NEPA Implementation	\$100
EPM	Pesticides: Protect Human Health from Pesticide Risk	\$150
EPM	Pesticides: Protect the Environment from Pesticide Risk	\$150
EPM	Pesticides: Realize the Value of Pesticide Availability	\$100
EPM	Pollution Prevention Program	\$100
EPM	RCRA: Corrective Action	\$100
EPM	RCRA: Waste Management	\$170
EPM	RCRA: Waste Minimization & Recycling	\$50
EPM	Reduce Risks from Indoor Air	\$150
EPM	Regulatory/Economic-Management and Analysis	\$75
EPM	Science Advisory Board	\$100
EPM	State and Local Prevention and Preparedness	\$100
EPM	Surface Water Protection	\$300
EPM	Toxic Substances: Chemical Risk Review and Reduction	\$175
EPM	Toxic Substances: Lead Risk Reduction Program	\$75
EPM	TRI / Right to Know	\$75
EPM	Tribal - Capacity Building	\$50
EPM	Wetlands	\$130
S&T	Federal Support for Air Quality Management	\$50
S&T	Research: Air, Climate and Energy	\$100
S&T	Research: Chemical Safety and Sustainability	\$100
Total		\$5,000

FISCAL YEAR 2016: CONSOLIDATIONS, REALIGNMENTS, OR OTHER TRANSFERS OF RESOURCES

This table shows consolidations, realignments, or other transfers of resources and personnel from one program/project to another in order to clearly illustrate a transfer of FY 2016 resources (Dollars in Thousands).

Program/ Project	Total Fund Transferred From:	FTE Transferred From:	Total Fund Transferred To:	FTE Transferred To:	Purpose
EPM: Central Planning, Budgeting, and Finance	(\$1,300)	(5.0)	\$0	0.0	A realignment of funds and FTE for Environmental Finance Center from EPM: Central Planning, Budgeting, and Finance to EPM: Drinking Water and EPM: Surface Water Protection programs to better support water infrastructure investments.
EPM: Drinking Water Programs			\$650	2.5	
EPM: Surface Water Protection			\$650	2.5	
EPM: Surface Water Protection	(\$2,200)	0.0	\$0	0.0	This realignment centralizes funding for Water Infrastructure Finance and Innovation activities in a newly created Program/Project for WIFIA.
EPM: Water Infrastructure Finance and Innovation			\$2,200	0.0	
SF: Audits, Evaluation, and Investigations	(\$1,531)	(5.0)	\$0	0.0	A realignment from Superfund to IG account to provide additional flexibility in prioritizing audit activities.
IG: Audits, Evaluation, and Investigations			\$1,531	5.0	
EPM: Exchange Network	(\$990)	(1.0)	\$0	0.0	A realignment from funds and FTE related to FOIA program from Exchange Network to IT/Data Management to reflect where the related activities are performed.
EPM: IT/Data Management			\$990	1.0	
Superfund: Exchange Network	(\$100)	0.0	\$0	0.0	
Superfund: IT/Data Management			\$100	0.0	

EPA BUDGET BY NATIONAL PROGRAM MANAGER AND MAJOR OFFICE

Dollars in Thousands

NPM	Major Office	FY 2015 Enacted				FY 2016 President's Budget				
		Pay (\$K)	Non-Pay (\$K)	Total (\$K)	FTE	Pay (\$K)	Non-Pay (\$K)	Total (\$K)	FTE	
OA	Immediate Office	\$3,097.0	\$330.0	\$3,427.0	21.8	\$3,524.0	\$608.0	\$4,132.0	23.8	
	Office of Congressional and Intergovernmental	\$7,065.0	\$98.0	\$7,163.0	49.4	\$7,593.0	\$226.0	\$7,819.0	51.6	
	Office of Public Affairs	\$6,326.0	\$77.0	\$6,403.0	44.1	\$5,724.0	\$337.0	\$6,061.0	38.9	
	Office of Public Engagement	\$1,716.0	\$20.0	\$1,736.0	12.0	\$1,766.0	\$0.0	\$1,766.0	12.0	
	Office of Policy	\$23,089.0	\$6,171.0	\$29,260.0	138.9	\$24,099.0	\$17,826.0	\$41,925.0	140.9	
	Children's Health Protection	\$2,470.0	\$2,859.0	\$5,329.0	15.4	\$2,541.0	\$4,143.0	\$6,684.0	15.4	
	Environmental Education	\$829.0	\$7,193.0	\$8,022.0	6.1	\$853.0	\$9,435.0	\$10,288.0	6.1	
	Office of Civil Rights	\$5,001.0	\$2,394.0	\$7,395.0	36.6	\$5,146.0	\$2,797.0	\$7,943.0	36.6	
	Executive Secretariat	\$2,088.0	\$14.0	\$2,102.0	14.6	\$2,149.0	\$124.0	\$2,273.0	14.6	
	Executive Services	\$2,989.0	\$2,717.0	\$5,706.0	20.9	\$2,781.0	\$759.0	\$3,540.0	18.9	
	Homeland Security	\$1,772.0	\$405.0	\$2,177.0	9.7	\$1,833.0	\$901.0	\$2,734.0	9.7	
	Science Advisory Board	\$3,807.0	\$1,251.0	\$5,058.0	22.2	\$3,813.0	\$2,159.0	\$5,972.0	21.6	
	Small and Disadvantaged Business Utilization	\$1,668.0	\$1,249.0	\$2,917.0	11.6	\$1,674.0	\$1,627.0	\$3,301.0	11.3	
	Regional Resources	\$26,655.0	\$4,043.0	\$30,698.0	192.3	\$27,964.0	\$4,888.0	\$32,852.0	190.9	
	TOTAL		\$88,572.0	\$28,821.0	\$117,393.0	595.6	\$91,460.0	\$45,830.0	\$137,290.0	592.3
	OAR	Immediate Office	\$9,982.8	\$9,488.7	\$19,471.5	63.0	\$10,215.4	\$20,374.7	\$30,590.1	62.5
		Office of Air Quality Planning and Standards	\$49,291.0	\$20,588.9	\$69,879.9	338.8	\$52,556.0	\$43,331.4	\$95,887.4	349.6
Office of Atmospheric Programs		\$35,506.4	\$83,429.1	\$118,935.5	231.1	\$38,661.0	\$95,051.4	\$133,712.4	243.7	
Office of Transportation and Air Quality		\$51,724.3	\$53,071.8	\$104,796.1	345.2	\$53,984.6	\$58,256.8	\$112,241.4	349.2	
Office of Radiation and Indoor Air		\$21,611.6	\$16,210.4	\$37,822.0	141.4	\$22,903.0	\$18,194.7	\$41,097.8	144.8	
Regional Resources		\$76,442.0	\$292,588.0	\$369,030.0	555.0	\$86,467.0	\$296,066.0	\$382,533.0	604.8	
TOTAL			\$244,558.0	\$475,377.0	\$719,935.0	1,674.5	\$264,787.0	\$531,275.0	\$796,062.0	1,754.6
OARM	Immediate Office	\$5,441.8	\$23,197.4	\$28,639.2	33.0	\$5,492.7	\$25,876.5	\$31,369.2	32.0	
	Office of Diversity Advisory Committee Management and Outreach	\$2,546.1	\$559.4	\$3,105.5	18.0	\$2,764.9	\$577.6	\$3,342.6	18.0	
	Administrative Law Judges	\$2,185.4	\$439.1	\$2,624.5	14.5	\$2,542.9	\$193.2	\$2,736.1	14.5	
	Environmental Appeals Board	\$2,090.2	\$414.0	\$2,504.2	12.3	\$2,157.1	\$168.2	\$2,325.3	12.3	
	Office of Acquisition Management	\$30,900.6	\$10,006.2	\$40,906.7	220.0	\$31,323.6	\$18,058.2	\$49,381.8	216.0	
	Office of Administration	\$21,464.8	\$337,238.0	\$358,702.7	111.0	\$21,069.6	\$353,092.1	\$374,161.7	108.8	
	Office of Human Resources	\$18,416.7	\$10,545.5	\$28,962.2	92.9	\$20,916.9	\$15,194.1	\$36,111.0	95.9	
	Office of Grants & Debarment	\$10,066.1	\$5,781.6	\$15,847.6	72.0	\$10,509.2	\$8,293.8	\$18,803.0	72.0	
	OARM RTP	\$10,232.4	\$28,896.7	\$39,129.1	83.9	\$10,630.8	\$33,340.4	\$43,971.2	83.9	
	OARM Cincinnati Office	\$9,605.1	\$15,908.0	\$25,513.2	76.7	\$10,098.3	\$15,910.9	\$26,009.2	76.7	
	Regional Resources	\$49,716.0	\$40,547.0	\$90,263.0	360.7	\$53,154.0	\$43,800.0	\$96,954.0	358.2	
	TOTAL		\$162,665.0	\$473,533.0	\$636,198.0	1,095.0	\$170,660.0	\$514,505.0	\$685,165.0	1,088.3
	OCFO	Immediate Office	\$2,195.0	\$771.0	\$2,966.0	10.5	\$2,272.4	\$904.0	\$3,176.5	10.5
Center for Environmental Finance		\$715.4	\$709.0	\$1,424.4	5.0	\$0.0	\$0.0	\$0.0	0.0	
Office of Budget		\$5,823.1	\$3,344.6	\$9,167.7	40.7	\$5,972.9	\$3,333.1	\$9,305.9	39.7	
Office of Planning, Analysis and Accountability		\$3,648.4	\$604.2	\$4,252.6	25.5	\$3,640.9	\$663.5	\$4,304.4	24.2	
Office of Financial Management		\$6,266.6	\$1,085.5	\$7,352.2	43.8	\$6,589.7	\$998.0	\$7,587.7	43.8	
Office of Technology Solutions		\$4,793.6	\$19,472.2	\$24,265.8	35.9	\$5,058.5	\$24,665.1	\$29,723.5	35.9	
Office of Financial Services		\$19,150.9	\$5,216.9	\$24,367.8	136.3	\$20,005.9	\$5,342.2	\$25,348.1	135.3	
Office of Resource and Information Management		\$1,817.0	\$1,350.5	\$3,167.5	12.7	\$1,910.7	\$1,631.2	\$3,541.9	12.7	
OCFO eEnterprise		\$650.0	\$299.0	\$949.0	4.0	\$706.0	\$300.0	\$1,006.0	4.0	
Regional Resources		\$28,138.0	\$1,585.0	\$29,723.0	215.2	\$29,396.0	\$1,684.0	\$31,080.0	215.7	
TOTAL			\$73,198.0	\$34,438.0	\$107,636.0	529.6	\$75,553.0	\$39,521.0	\$115,074.0	521.8

EPA BUDGET BY NATIONAL PROGRAM MANAGER AND MAJOR OFFICE

Dollars in Thousands

NPM	Major Office	FY 2015 Enacted				FY 2016 President's Budget			
		Pay (\$K)	Non-Pay (\$K)	Total (\$K)	FTE	Pay (\$K)	Non-Pay (\$K)	Total (\$K)	FTE
OCSPP	Immediate Office	\$6,737.4	\$1,890.2	\$8,627.7	42.6	\$6,207.1	\$2,080.1	\$8,287.2	38.2
	Office of Pesticide Programs	\$75,287.2	\$16,707.8	\$91,995.0	494.0	\$77,702.8	\$25,765.3	\$103,468.1	492.0
	Office of Pollution Prevention and Toxics	\$45,005.8	\$26,126.7	\$71,132.6	284.9	\$46,281.1	\$23,792.8	\$70,073.8	282.6
	Office of Science Coordination and Policy	\$3,318.6	\$5,740.2	\$9,058.8	19.2	\$3,402.0	\$2,711.8	\$6,113.8	19.0
	Regional Resources	\$19,970.0	\$30,285.0	\$50,255.0	146.2	\$20,437.0	\$30,296.0	\$50,733.0	142.6
	TOTAL	\$150,319.0	\$80,750.0	\$231,069.0	986.9	\$154,030.0	\$84,646.0	\$238,676.0	974.4
OECA	Immediate Office	\$7,949.5	\$2,908.5	\$10,858.0	50.5	\$8,310.9	\$4,181.8	\$12,492.7	50.8
	Office of Civil Enforcement	\$23,136.7	\$3,791.7	\$26,928.4	130.9	\$23,834.0	\$10,678.9	\$34,512.9	129.0
	Office of Criminal Enforcement, Forensics, and Training	\$57,153.5	\$8,033.0	\$65,186.5	326.0	\$58,948.4	\$12,659.7	\$71,608.1	324.3
	Office of Compliance	\$21,286.9	\$18,289.9	\$39,576.9	128.5	\$22,243.4	\$57,512.3	\$79,755.7	128.6
	Office of Environmental Justice	\$3,196.3	\$1,475.3	\$4,671.6	21.8	\$3,300.2	\$8,475.8	\$11,776.0	21.5
	Office of Federal Activities	\$3,924.1	\$812.9	\$4,737.1	24.5	\$4,094.5	\$1,582.2	\$5,676.7	24.1
	Federal Facilities Enforcement Office	\$2,725.0	\$674.4	\$3,399.5	14.9	\$2,865.7	\$668.9	\$3,534.7	14.7
	Office of Site Remediation Enforcement	\$11,568.9	\$27,545.3	\$39,114.2	69.0	\$11,987.0	\$28,128.3	\$40,115.3	68.8
	Regional Resources	\$305,779.0	\$43,988.0	\$349,767.0	2,111.7	\$317,145.0	\$23,959.0	\$341,104.0	2,118.4
	TOTAL	\$436,720.0	\$107,519.0	\$544,239.0	2,877.8	\$452,729.0	\$147,847.0	\$600,576.0	2,880.2
OEI	Immediate Office	\$2,580.6	\$6,302.4	\$8,883.0	14.3	\$4,184.0	\$7,186.8	\$11,370.8	22.3
	EPA Quality Management Program	\$2,027.3	\$682.0	\$2,709.3	12.6	\$2,114.2	\$647.3	\$2,761.5	12.6
	Office of Planning, Resources, and Outreach	\$4,241.4	\$2,351.2	\$6,592.7	26.5	\$4,451.4	\$2,083.3	\$6,534.7	26.5
	Office of Information Collection	\$9,605.5	\$32,730.2	\$42,335.8	61.2	\$10,111.8	\$61,031.7	\$71,143.4	61.2
	Office of Technology Operations and Planning	\$11,962.2	\$11,287.1	\$23,249.2	76.6	\$12,915.2	\$11,725.1	\$24,640.3	77.3
	Office of Information Analysis and Access	\$12,378.9	\$15,905.1	\$28,284.0	79.9	\$13,062.5	\$19,316.8	\$32,379.3	79.9
	Regional Resources	\$22,572.0	\$18,991.0	\$41,563.0	163.9	\$23,217.0	\$20,807.0	\$44,024.0	162.0
	TOTAL	\$65,368.0	\$88,249.0	\$153,617.0	435.0	\$70,056.0	\$122,798.0	\$192,854.0	441.8
OGC	Immediate Office	\$2,264.4	\$38.0	\$2,302.5	12.8	\$2,340.3	\$38.0	\$2,378.3	12.8
	Air and Radiation Law Office	\$7,139.1	\$40.0	\$7,179.1	40.3	\$9,211.2	\$40.0	\$9,251.2	50.3
	Pesticides and Toxic Substances Law Office	\$3,437.2	\$29.0	\$3,466.3	19.4	\$3,736.0	\$29.0	\$3,765.0	20.4
	Solid Waste and Emergency Response Law Office	\$2,073.0	\$32.0	\$2,105.0	11.7	\$2,324.2	\$32.0	\$2,356.2	12.7
	Water Law Office	\$3,582.6	\$183.2	\$3,765.8	20.7	\$4,015.0	\$183.0	\$4,198.0	21.7
	Other Legal Support	\$16,151.7	\$3,383.7	\$19,535.3	94.0	\$17,842.3	\$5,136.0	\$22,978.3	96.9
	Regional Resources	\$23,111.0	\$581.0	\$23,692.0	133.1	\$28,578.0	\$768.0	\$29,346.0	158.0
	TOTAL	\$57,759.0	\$4,287.0	\$62,046.0	332.0	\$68,047.0	\$6,226.0	\$74,273.0	372.8
OIG	Immediate Office	\$640.5	\$75.1	\$715.7	3.2	\$656.6	\$273.6	\$930.2	3.2
	Office of Audit	\$13,599.0	\$280.7	\$13,879.7	92.6	\$13,941.6	\$1,022.1	\$14,963.7	92.2
	Office of Congressional, Public Affairs and Management	\$3,202.7	\$30.9	\$3,233.6	17.4	\$3,283.4	\$112.7	\$3,396.1	19.1
	Office of Chief of Staff	\$3,347.5	\$454.9	\$3,802.4	20.9	\$3,431.9	\$1,843.0	\$5,274.9	22.3
	Office of Investigations	\$11,431.1	\$610.0	\$12,041.1	66.9	\$11,718.9	\$2,221.3	\$13,940.2	66.8
	Office of Mission Systems	\$3,793.9	\$415.5	\$4,209.5	28.0	\$3,889.5	\$1,513.0	\$5,402.5	22.3
	Office of Program Evaluation	\$13,254.2	\$291.8	\$13,546.0	92.6	\$13,588.0	\$1,062.3	\$14,650.3	92.2
	TOTAL	\$49,269.0	\$2,159.0	\$51,428.0	321.5	\$50,510.0	\$8,048.0	\$58,558.0	318.1

EPA BUDGET BY NATIONAL PROGRAM MANAGER AND MAJOR OFFICE

Dollars in Thousands

NPM	Major Office	FY 2015 Enacted				FY 2016 President's Budget			
		Pay (\$K)	Non-Pay (\$K)	Total (\$K)	FTE	Pay (\$K)	Non-Pay (\$K)	Total (\$K)	FTE
OITA	Immediate Office	\$1,042.2	\$55.7	\$1,097.9	6.1	\$889.8	\$55.5	\$945.3	5.0
	Office of Regional and Bilateral Affairs	\$3,902.2	\$2,588.4	\$6,490.6	24.0	\$3,940.9	\$2,849.8	\$6,790.7	24.0
	Office of Global Affairs and Policy	\$3,305.4	\$202.6	\$3,508.0	19.3	\$3,389.6	\$302.5	\$3,692.2	19.0
	Office of Management and International Services	\$1,795.5	\$781.1	\$2,576.6	12.9	\$1,783.3	\$922.7	\$2,706.0	12.3
	American Indian Environmental Office	\$2,828.8	\$706.1	\$3,534.9	18.7	\$3,194.3	\$1,862.5	\$5,056.8	20.0
	Regional Resources	\$11,015.0	\$66,716.0	\$77,731.0	78.5	\$11,378.0	\$97,967.0	\$109,345.0	78.5
	TOTAL	\$23,889.0	\$71,050.0	\$94,939.0	159.5	\$24,576.0	\$103,960.0	\$128,536.0	158.8
ORD	ORD Headquarters	\$30,644.7	\$60,279.7	\$90,924.4	330.7	\$32,200.0	\$66,662.0	\$98,862.0	320.1
	National Center for Environmental Research	\$8,158.0	\$60,374.9	\$68,532.9	59.8	\$8,258.0	\$53,952.0	\$62,210.0	57.7
	National Exposure Research Laboratory	\$53,955.8	\$29,512.1	\$83,467.9	327.3	\$54,158.0	\$30,033.0	\$84,191.0	315.8
	National Health and Environmental Effects Research Laboratory	\$76,393.4	\$44,713.0	\$121,106.4	496.1	\$75,201.0	\$46,105.0	\$121,306.0	478.6
	National Homeland Security Research Center	\$6,626.4	\$13,672.8	\$20,299.2	40.1	\$6,465.0	\$12,525.0	\$18,990.0	38.7
	National Risk Management Research Laboratory	\$42,455.0	\$28,591.2	\$71,046.2	281.6	\$42,405.0	\$28,222.0	\$70,627.0	270.7
	Office of the Science Advisor	\$3,311.7	\$3,373.9	\$6,685.6	12.5	\$3,317.0	\$3,430.0	\$6,747.0	12.0
	National Center for Computational Toxicology	\$3,029.2	\$7,895.1	\$10,924.3	21.1	\$3,300.0	\$14,104.0	\$17,404.0	30.1
	National Center for Environmental Assessment	\$31,831.7	\$15,886.3	\$47,718.1	185.7	\$31,963.0	\$15,486.0	\$47,449.0	181.2
	TOTAL	\$256,406.0	\$264,299.0	\$520,705.0	1,754.9	\$257,267.0	\$270,519.0	\$527,786.0	1,704.9
	OSWER	Immediate Office	\$9,113.4	\$6,026.6	\$15,140.0	54.9	\$8,980.0	\$6,318.7	\$15,298.7
Federal Facilities Restoration and Reuse Office		\$2,151.3	\$902.4	\$3,053.7	14.2	\$2,122.1	\$1,923.3	\$4,045.4	13.2
Innovation Partnership & Communication Office		\$1,341.8	\$1,131.8	\$2,473.6	8.3	\$1,489.9	\$1,131.4	\$2,621.3	8.8
Office of Superfund Remediation and Technology Innovation		\$23,551.9	\$74,810.9	\$98,362.9	147.6	\$24,417.2	\$73,180.1	\$97,597.4	147.0
Office of Resource Conservation and Recovery		\$26,533.8	\$10,299.4	\$36,833.2	167.8	\$27,257.5	\$17,946.9	\$45,204.3	165.9
Office of Underground Storage Tanks		\$4,236.3	\$2,726.3	\$6,962.7	26.6	\$4,279.6	\$2,512.1	\$6,791.6	25.5
Office of Brownfields and Land Revitalization		\$2,577.2	\$16,856.8	\$19,433.9	20.0	\$3,073.9	\$19,147.3	\$22,221.2	19.5
Office of Emergency Management		\$11,132.2	\$31,936.8	\$43,068.9	69.4	\$11,697.8	\$42,074.2	\$53,772.1	69.1
Regional Resources		\$259,845.0	\$752,089.0	\$1,011,934.0	1,824.2	\$268,609.0	\$838,227.0	\$1,106,836.0	1,814.8
TOTAL		\$340,483.0	\$896,780.0	\$1,237,263.0	2,333.0	\$351,927.0	\$1,002,461.0	\$1,354,388.0	2,315.5
OW	Immediate Office	\$10,802.1	\$6,526.7	\$17,328.8	66.8	\$11,043.7	\$9,442.2	\$20,485.9	66.0
	Office of Ground Water and Drinking Water	\$26,097.1	\$43,982.3	\$70,079.4	167.8	\$26,719.7	\$56,040.5	\$82,760.2	166.0
	Office of Science and Technology	\$18,148.0	\$18,067.9	\$36,215.9	114.5	\$18,568.6	\$20,205.5	\$38,774.1	113.3
	Office of Wastewater Management	\$15,677.3	\$14,888.6	\$30,565.9	99.1	\$18,153.2	\$46,093.5	\$64,246.7	111.0
	Office of Wetlands, Oceans and Watersheds	\$18,577.5	\$24,585.5	\$43,163.0	114.8	\$19,085.8	\$33,989.3	\$53,075.1	114.1
	Regional Resources	\$186,717.0	\$3,319,349.0	\$3,506,066.0	1,341.7	\$193,221.0	\$3,229,917.0	\$3,423,138.0	1,340.4
	TOTAL	\$276,019.0	\$3,427,400.0	\$3,703,419.0	1,904.7	\$286,792.0	\$3,395,688.0	\$3,682,480.0	1,910.8
Subtotal Agency Resources		\$2,225,225.0	\$5,954,662.0	\$8,179,887.0	15,000.0	\$2,318,394.0	\$6,273,324.0	\$8,591,718.0	15,034.3
Less Rescission of Prior Year Funds				(\$40,000.0)					
Reimbursable FTE					335.0				339.0
Total Agency Resources		\$2,225,225.0	\$5,954,662.0	\$8,139,887.0	15,335.0	\$2,318,394.0	\$6,273,324.0	\$8,591,718.0	15,373.3

**ATTORNEY FEE AND COST PAYMENTS OBLIGATED IN FY 2014 UNDER EQUAL ACCESS FOR JUSTICE ACT (EAJA)
as a Result of Defensive Environmental Litigations under Environmental Statutes**

Date of Final fee agreement or court disposition	Case Name	Court	Case Number	Judge	Case Disposition	Amount of Fees and/or Costs Paid	Source of Funds	Was amount negotiated or court ordered?	Recipients	Nature of Case
08/21/2013 ²⁰	Alliance to Save the Mattaponi, et al. v. US EPA	D.D.C.	1:06-CV-1268	Frederick J. Scullin, Jr.	Dismissed following settlement	\$35,906.26	EPA Appropriations	Negotiated settlement agreement for attorney fees	Southern Environmental Law Center	Issuance of CWA section permit for dredge and fill associated with the King William Reservoir
08/21/2013 ¹	Alliance to Save the Mattaponi, et al. v. USEPA	D.D.C.	1:06-CV-1268	Frederick J. Scullin, Jr.	Dismissed following settlement	\$4,933.43	EPA Appropriations	Negotiated settlement agreement for attorney fees	Chesapeake Bay Foundation	Issuance of CWA section permit for dredge and fill associated with the King William Reservoir
08/21/2013 ¹	Alliance to Save the Mattaponi, et al. v. USEPA	D.D.C.	1:06-CV-1268	Frederick J. Scullin, Jr.	Dismissed following settlement	\$32,656.83	EPA Appropriations	Negotiated settlement agreement for attorney fees	Georgetown Institute for Public Representation	Issuance of CWA section permit for dredge and fill associated with the King William Reservoir
12/03/2013	Micosaukee Tribe of Indians et al; and Friends of the Everglades v. USA	S.D. Fla.	04-cv-21448	Alan Gold	Case settled	\$49,950.50	EPA Appropriations	Negotiated settlement agreement for attorney fees	Reiner & Reiner, P.A. Trust Account	Water Quality Standards in Florida; fees were litigated as well.

²⁰ The date of court disposition for these cases occurred in FY2013. The negotiated settlement for attorney fees and funds obligation occurred in FY2014.

Date of Final fee agreement or court disposition	Case Name	Court	Case Number	Judge	Case Disposition	Amount of Fees and/or Costs Paid	Source of Funds	Was amount negotiated or court ordered?	Recipients	Nature of Case
11/22/2013	Louisiana Environmental Action Network, et al. v. Lisa Jackson, et al.	D.D.C.	1:12-cv-01096-JDB	John D. Bates	Dismissed following settlement	\$5,700.00	Judgment Fund	Negotiated in context of a settlement agreement	Tulane Environmental Law Clinic (as Plaintiffs' counsel)	EPA's failure to respond to the June 25, 2010 and May 3, 2011 Title V petitions for the pig iron and DRI plants proposed by Consolidated Environmental Management, Inc., Nucor Steel Louisiana for its Iron manufacturing facility
12/10/2013	Sierra Club v. EPA	N.D. Cal.	3:12-cv-4078	Jon S. Tigar	Case Settled	\$13,358.00	Judgment Fund	Negotiated in context of a settlement agreement	McGillivray Westerberg & Bender LLC.	EPA's failure to take final action on a Nevada August 31, 2010 State Implementation Plan (SIP) submittal of five new and revised regulations focused primarily on permitting requirements and procedures for major stationary sources of air pollution
12/16/2013	Northwest Environmental Advocates, et al. v. EPA, et al.	D. Or.	CV 05-1876	Judge Acosta	Decided partly in favor of EPA and partly in favor of Plaintiffs/ Petitioners	\$270,600.00 Total \$209,600.00 from EPA Appropriations And \$61,000.00 from Judgment Fund	EPA Appropriations and Judgment Fund	Negotiated in context of a settlement agreement	Northwest Environmental Advocates	Administrative Procedure Act (APA) challenge to EPA approval of Oregon WQSs; allegation that EPA failed to fulfil nondiscretionary duty to review and disapprove other Oregon WQSs; ESA \claims.

Date of Final fee agreement or court disposition	Case Name	Court	Case Number	Judge	Case Disposition	Amount of Fees and/or Costs Paid	Source of Funds	Was amount negotiated or court ordered?	Recipients	Nature of Case
03/06/2014	NRDC v. USEPA	9 th Cir.	12-70268	Jerome Farris; Jay Bybee; Lynn Adelman	Case Settled	\$46,000.00	EPA Appropriations	Negotiated settlement agreement for attorney fees	NRDC	Issuance of conditional pesticide registration for AGS-20.
9/2/2014	Sierra club v. EPA	D.D.C.	1:11-cv-2180	Judge Walton	Case Settled	\$3,800.00	Judgment Fund	Negotiated in context of a consent decree	Robert Ukeiley P.S.C.	EPA's failure to take action of 39 SIP submittals from multiple states and failure to take final action on PA SIP submittals for the 1997 PM2.5 NAAQS addressing the Pittsburgh-Beaver Valley nonattainment area.

PHYSICIANS' COMPARABILITY ALLOWANCE (PCA) WORKSHEET FOR PY 2015

**Environmental Protection Agency
Table 1**

		PY 2014* (Actual)	CY 2015 (Estimates)	BY 2016 (Estimates)
1) Number of Physicians Receiving PCAs		5	4	4
2) Number of Physicians with One-Year PCA Agreements		0	0	0
3) Number of Physicians with Multi-Year PCA Agreements		5	4	4
4) Average Annual PCA Physician Pay (without PCA payment)		\$134,264	\$135,236	\$135,236
5) Average Annual PCA Payment		\$25,116	\$24,917	\$24,917
6) Number of Physicians Receiving PCAs by Category (non-add)	Category I Clinical Position			
	Category II Research Position	5	4	4
	Category III Occupational Health	0	0	0
	Category IV-A Disability Evaluation			
	Category IV-B Health and Medical Admin.			

*One physician receiving a PCA separated from the agency on July 26, 2014.

- 7) If applicable, list and explain the necessity of any additional physician categories designated by your agency (for categories other than I through IV-B). Provide the number of PCA agreements per additional category for the PY, CY and BY.

The EPA expects no additional categories to be applicable in the foreseeable future.

- 8) Provide the maximum annual PCA amount paid to each category of physician in your agency and explain the reasoning for these amounts by category.

The maximum allowance being paid to a Category II Research Position is \$29,900.

- 9) Explain the recruitment and retention problem(s) for each category of physician in your agency (this should demonstrate that a current need continues to persist).

Historically, the small number of the EPA Research Physicians varies between five and seven positions. This small population experiences modest turnover. Therefore, the value of the physicians' comparability allowance to the EPA is as a retention tool.

- 10) Explain the degree to which recruitment and retention problems were alleviated in your agency through the use of PCAs in the prior fiscal year.

We are told regularly that absent the allowance, some EPA research physicians would seek employment at federal agencies that provided the allowance.

- 11) Provide any additional information that may be useful in planning PCA staffing levels and amounts in your agency.

An agency with a very small number of physician positions and a low turn-over rate among them still needs the allowance authority to maintain the stability of the small population. Those who opt for federal employment instead of private sector employment still want the maximum pay available in the federal sector. Therefore, were it not for the PCA, the EPA would regularly lose some of its physicians to other federal agencies that offer the allowance, thereby necessitating the refilling of vacant positions. Therefore, turn-over statistics should be viewed in this light.

IG'S COMMENTS ON THE FY 2016 PRESIDENT'S BUDGET

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



JAN 30 2015

THE INSPECTOR GENERAL

MEMORANDUM

SUBJECT: IG's Comments to the President's Budget

FROM: Arthur A. Elkins Jr., Inspector General

TO: Shaun Donovan, Director
Office of Management and Budget

Dear Mr. Donovan:

As you are aware, the Inspector General Act of 1978, as amended, 5 U.S.C. app. 3, § 6(f)(3)(E), provides that:

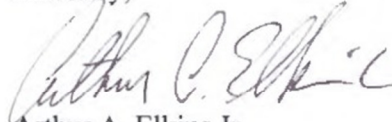
"The President shall include in each budget of the United States Government submitted to Congress--any comments of the affected Inspector General with respect to the proposal if the Inspector General concludes that the budget submitted by the President would substantially inhibit the Inspector General from performing the duties of the office."

The fiscal year 2016 poses significant issues for the U.S. Environmental Protection Agency (EPA) Office of Inspector General (OIG). The OIG is slated to receive a \$276,000 reduction to the payroll account. I do not agree that the OIG budget should be cut. The OIG historically produces a significant positive return on investment in monetary results-734 percent of our budget in fiscal year 2014--and any cut would impair the President's Management Agenda. Taking money away from the OIG actually increases the deficit by reducing the recoveries that result from OIG work.

I urgently and respectfully request that the President's budget recognize the work the EPA OIG has done in reshaping the workforce, and the greater vulnerability to the agency that any reduction of OIG funding would create, along with the loss of return on investment it would represent. I request that the President's budget restore the OIG request to the original level. If not, consistent with the provisions of the Inspector General Act, I request that the President include these comments in the budget he submits to the Congress.

If you or your staff have any questions, or would like to meet to discuss this matter, you may reach me at (202) 566-0847 or elkins.arthur@epa.gov.

Sincerely,



Arthur A. Elkins Jr.

cc: The Honorable Brian Deese
The Honorable Michael Horowitz
The Honorable Avi Garbow

**Environmental Protection Agency
2015 Annual Performance Plan and Congressional Justification**

Table of Contents – Appendix B

Performance Management in FY 2014	1073
Program Evaluations	1075
Summary of FY 2014 Performance Results	1078
Strategic Goal 1:	1081
Summary of Progress	1084
Key FY 2014 Performance Results.....	1085
FY 2014–2015 Agency Priority Goal	1085
Clean Power Plan Proposal	1085
New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills	1086
Oil and Gas White Papers	1087
Greenhouse Gas Reporting Program	1087
Performance Challenges	1087
Delivering the Clean Power Plan	1087
Summary of Progress	1089
Key FY 2014 Performance Results.....	1090
Tier 3 Vehicle Emission and Fuel Standards Program	1090
Near-Road Monitoring Network.....	1090
New Source Performance Standard for Residential Wood Heaters.....	1090
Rules for the Refinery Sector.....	1091
Reducing Risk from Diesel Emissions in Communities.....	1091
Childhood Asthma Risk Reduction	1092
Performance Challenges	1093
Impact of Legal Challenges	1093
Summary of Progress	1094
Key FY 2014 Performance Results.....	1094
Phaseout of ODSs	1094
Performance Challenges	1095
Challenges in the Phaseout of ODSs	1095
Summary of Progress	1096

Key FY 2014 Performance Results.....	1096
EPA Regulatory Oversight at the Department of Energy’s Waste Isolation Pilot Plant	1096
Performance Challenges	1097
Maintaining EPA’s Radiation Emergency Response Program Readiness	1097
Strategic Goal 2:	1098
Summary of Progress	1101
FY 2014 Performance Accomplishments	1102
FY 2014 Performance Challenge	1103
Summary of Progress	1105
FY 2014 Performance Accomplishments	1106
.....	1109
FY 2014 Performance Challenges	1109
Nonpoint Source Nutrient Runoff.....	1109
Strategic Goal 3:	1111
Summary of Progress	1114
FY 2014 Performance Accomplishments	1115
Brownfield Properties Assessed	1115
Performance Challenges	1117
Implementation of Executive Order on Improving Chemical Facility Safety and Security.	1117
Summary of Progress	1118
FY 2014 Performance Accomplishments	1119
Use of Virgin Resources Offset Through SMM.....	1119
More Hazardous Waste Facilities with New or Updated Controls.....	1120
Summary of Progress	1122
FY 2014 Performance Accomplishments	1123
FY 2014 Performance Challenges	1124
Superfund Remedial Program.....	1124
Summary of Progress	1126
FY 2014 Performance Accomplishments	1127
Tribal Capacity Building.....	1127
Tribal Consultation	1127
Tribal ecoAmbassadors Program.....	1128
Implementing Federal Regulatory Environmental Programs in Indian Country	1128
Tribal Program Needs Assessment	1129

Strategic Goal 4:	1130
Key FY 2014 Performance Accomplishments	1134
Lead RRP Active Certified Firms.....	1135
Ensuring Online Public Access to TSCA Chemical Information.....	1135
Annual Number of Pesticide Registration Review Dockets and Workplans Opened	1136
Assessment of TSCA Work Plan Chemicals	1137
Performance Challenges	1138
EDSP’s WoE Determinations.....	1138
Chemical Safety Work Hampered by TSCA Limitations.....	1139
Persistent Income-Related Disparities in Reducing Children’s Blood Lead Levels	1139
EDSP’s Environmental Justice Activities.....	1140
Implementation of Endangered Species Act During Registration Review.....	1140
Summary of Progress	1141
Key FY 2014 Performance Results.....	1142
Environmentally Preferable Purchasing	1142
Expanding the DfE Safer Product Labeling Program and Safer Chemical Ingredients List	1143
Strategic Goal 5:	1144
Summary of Progress	1147
Key FY 2014 Performance Results.....	1149
Moving Next Generation Compliance from Design to Implementation	1150
National Enforcement Initiatives	1151
Performance Challenges	1153
Electronic Reporting.....	1153
Introduction.....	1154
Summary of Progress	1155
Key FY 2014 Performance Results.....	1156
Agency-Wide Staff Engagement via GreenSpark	1156
Green Infrastructure Collaborative	1156
Performance Challenges	1157
Encouraging Knowledge Management in the New Community of Practice.....	1157
Summary of Progress	1158
Key FY 2014 Performance Results.....	1159
GeoPlatform.....	1159
Community SharePoint Site.....	1159

Leveraging of Federal Resources.....	1160
Performance Challenges	1160
Coordinating Actions Needed for Development and Installation of New Agency IT Systems	1160
Culture Change	1160
Internal vs. External Communication	1160
Summary of Progress	1161
Key FY 2014 Performance Results.....	1162
Consultations with State and Local Elected Officials on EPA Rulemakings, Guidance, and Policies.....	1162
National Environmental Performance Partnership System.....	1162
Oversight of State-Delegated Programs.....	1162
Government-Wide Collaboration with Tribal Partners.....	1163
Provide EPA Leadership and Support to Strengthen International Collaborations	1163
Performance Challenges	1163
Oversight of State-Delegated Programs.....	1163
International—Addressing Black Carbon in Arctic Countries	1164
Key FY 2014 Performance Results.....	1165

INTRODUCTION

EPA's *FY 2014 Annual Performance Report (APR)* is integrated throughout [EPA's FY 2016 Annual Performance Plan and the Congressional Justification](#). The APR reports environmental and program performance results achieved in FY 2014 against the performance measures and targets established in the Agency's [FY 2014 Annual Performance Plan and the Congressional Justification and discusses progress for the first time](#) under the five goals, thirteen strategic objectives, and four cross-agency strategies established in EPA's [FY 2014–2018 Strategic Plan](#)

EPA's FY 2014 *APR* complies with requirements of the Government Performance and Results Modernization Act of 2010 and [Office of Management and Budget implementing guidance](#). In compliance with this law and [implementing guidance](#), in FY 2014 EPA conducted its first round of strategic reviews as an integral part of its performance management practices. Results from these reviews are discussed in the Summary of Progress section under each of EPA's thirteen strategic objectives.

This "**Overview of FY 2014 Performance**" highlights key FY 2014 program and performance accomplishments and challenges, illustrating how annual progress impacts longer term goals. EPA's FY 2014 performance results are also incorporated in the following sections of the *FY 2016 Annual Performance Plan and the Congressional Justification*:

- The "Introduction and Overview" section presents EPA's mission statement and organizational structure.
- The "Goal and Objective Overview" section discusses FY 2014 performance results to help explain future directions.
- Appropriation Program/Project Fact Sheets include FY 2014 performance results and trend data to provide context for budget decisions.
- The "Program Performance and Assessment" section presents a detailed 8-year table of performance data—displayed by strategic goal and objective—which provides results for each measure established in the Agency's *FY 2014 Annual Performance Plan* and includes explanations for missed or exceeded targets.

To supplement the *FY 2014 APR*, please refer to EPA's [FY 2014 Agency Financial Report \(AFR\)](#), which discusses EPA's FY 2014 financial performance, and its web-based [FY 2014 Highlights](#), which presents key financial and performance information from both the *AFR* and *APR* and provides links to additional information.

Performance Management in FY 2014

To promote achievement of its goals and objectives, EPA establishes a suite of annual performance measures in its *Annual Performance Plan and Budget*. The Agency reports its results against these annual performance measures and discusses progress toward longer-term objectives and measures in its *APR*. EPA assesses performance results as the basis for formulating and justifying its resource requests. Below is an overview of EPA's Performance Management Framework:

EPA's Performance Management Framework



FY 2014 Advances in Performance Management

During FY 2014, EPA designed and implemented a number of key initiatives to further strengthen its performance management.

The *FY 2014-2018 EPA Strategic Plan*: EPA's *FY 2014-2018 Strategic Plan*, transmitted to the President and the Congress and released to the public on April 10, 2014, updated our five strategic goals and thirteen objectives and established four cross-agency strategies. During the development of the Plan, EPA engaged with partners and stakeholders, regularly briefed the Local Government Advisory Committee and the Environmental Council of the States, formally consulted with Native American tribes, and held information sessions during the public comment period.

Strategic Reviews: EPA conducted its first round of strategic reviews as an integral part of its performance management practices. The strategic reviews considered a wide array of data and evidence to assess longer-term progress toward each of EPA's thirteen strategic objectives and four cross-agency strategies. Senior leaders met in spring 2014 to assess the agency's long-term progress and to discuss the most important successes and challenges to inform planning, budgeting, and program management decisions. The Agency summarized strategic review findings for each objective and discussed them with the Deputy Administrator, the Acting Chief Financial Officer, and the Office of Management and Budget. The results of the Agency's strategic reviews are reflected in EPA's *FY 2014 Annual Performance Report* and *FY 2016 Congressional Budget Justification and Annual Performance Plan*.

Agency Priority Goals: In FY 2014, EPA established six FY 2014–2015 Agency Priority Goals (APGs) as part of the *FY 2014–2018 Strategic Plan* and made steady progress implementing the APG action plans. EPA also contributed to Cross-Agency Priority (CAP) Goals across the federal government, notably for Cybersecurity, Benchmarking, and Infrastructure Permitting. In addition to quarterly internal discussions, EPA reported APG/CAP progress on <http://www.performance.gov> and discusses end-of-year progress for APGs in its FY 2014 Annual Performance Report.

Agency Performance Reviews: EPA’s Deputy Administrator and Chief Financial Officer meet quarterly with senior leadership to discuss progress on APGs and twice a year (mid-year and end-of-year) to discuss progress toward the Agency’s five goals and four cross-agency strategies. EPA officials use this forum to discuss performance information, policy/programmatic issues, and the impact of resource levels on Agency priorities and strategies. The reviews also help inform program strategy and budget initiatives moving forward. During the FY 2014 mid-year review, EPA focused on its new strategic reviews and how mid-year results inform and complement the longer view.

Transition to Two-Year National Program Manager (NPM) Guidance: In FY 2014, the Agency convened a workgroup of state, regional, and national program representatives to strengthen and make more meaningful state and tribal engagement in Agency programs; increase flexibility for states and tribes; streamline the workload associated with planning activities; and where possible, align the Agency’s NPM and grant guidances. A key part of this effort has been transitioning to two-year NPM guidances. NPM guidances identify program priorities, strategies, and operational measures consistent with EPA’s *Strategic Plan* and *Annual Plan and Budget* and serve as a national framework for regions to use as they negotiate work plans and develop work-sharing strategies with states and tribes. The new cycle for the NPM Guidance process began with implementation of the new exceptions-based FY 2015 Addendums to the FY 2014 NPM Guidances. The FY 2016-2017 NPM Guidances will reflect earlier engagement with EPA partners, identify the most important environmental and human health work, and outline opportunities for state and tribal flexibilities during work planning.

Enhanced Stewardship: To increase attention to the Agency’s stewardship responsibilities for managing programs and resources effectively and efficiently, EPA institutionalized Management Accountability Reviews. In FY 2014, EPA conducted reviews in the Office of the Administrator, Office of Solid Waste and Emergency Response, and EPA Regions 9 and 10. Onsite visits, conducted each year in selected program and regional offices, focus attention on the Agency’s responsibilities for audit management and implementation of the Federal Managers’ Financial Integrity Act, helping to ensure that EPA programs and activities are managed to prevent waste, fraud, and abuse.

Program Evaluations

Program evaluations help provide the evidence EPA needs to ensure that its programs are meeting their intended outcomes and allow the Agency to support more effective and efficient operations. By assessing how well a program is working and why, a program evaluation can help EPA identify

activities that benefit human health and the environment, provide the roadmap needed to replicate successes, and identify areas needing improvement. This is particularly important for fostering transparency and accountability. Summaries of program evaluations completed during FY 2014 are available at <http://www2.epa.gov/planandbudget/fy-2014-program-evaluations>.




THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

Reliability of the EPA's Performance Data

Data used to report performance results are reliable and as complete as possible. Because improvements in human health and the environment may not become immediately apparent, there might be delays between the actions we have taken and results we can measure. Additionally, we cannot provide results data for several of our performance measures for this reporting year. When possible, however, we have portrayed trend data to illustrate progress over time. We also report final performance results for previous years that became available in FY 2014.



Gina McCarthy
Administrator

1/20/15

Date

Summary of FY 2014 Performance Results

In its *FY 2014 Annual Performance Plan* and the *Congressional Justification*, EPA committed to 197 annual performance measures/targets. These performance measures/targets and EPA's results are presented in the 8-year table included in the "Program Performance and Assessment" section of the *FY 2016 Congressional Justification*. The 8-year table also provides explanations for missed and significantly exceeded targets and describes the Agency's plans to meet these performance measures in the future. EPA reviews annual results in terms of long-term performance, and will carefully consider its FY 2014 results and adjust its program strategies and approaches accordingly.

Targets Met

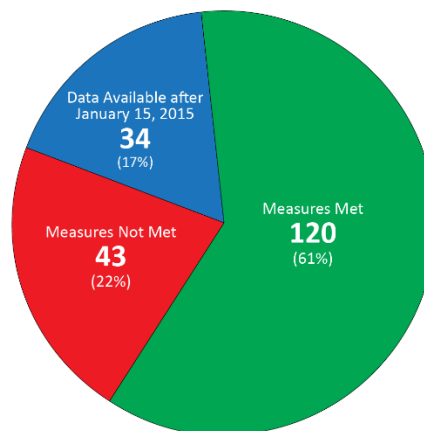
As of January 15, 2015, data are available for 163 of these annual budget performance measures/targets. The Agency met 120 of its FY 2014 performance measures, 74 percent of the performance measures for which data are available. Working with state and local governments, tribes, federal agencies, businesses, and industry leaders, EPA made significant progress toward the long-term strategic goals and objectives established in its Strategic Plan.

One of the top domestic achievements this year included EPA's first ever proposed standards to address carbon pollution from existing power plants. By 2030, the standards will cut carbon emissions from the power sector by 30 percent nationwide below 2005 levels. Additionally, EPA expects the proposed standards will cut particle matter pollution, nitrogen oxides, and SO₂ by more than 25 percent as a co-benefit, avoiding up to 6,600 premature deaths and up to 150,000 asthma attacks in children—providing up to \$93 billion in climate and public health benefits.

In efforts to protect America's waters, the EPA and the U.S. Army Corps of Engineers released a proposed rule to clarify protection under the Clean Water Act for streams and wetlands that form the foundation of the nation's water resources. The proposed rule will increase efficiency in determining Clean Water Act coverage, a request made by members of Congress, state and local officials, industry, agriculture, environmental groups and the public for nearly a decade.

In efforts to clean up communities and advance sustainable development under EPA's [Sustainable Materials Management \(SMM\) programs](#), participants in the [Food Recovery Challenge](#) diverted 375,000 tons of food from landfills; participants in the [Electronics Challenge](#) increased electronic waste collection by 7.5 percent from FY 2013; and federal agencies participating in the [Federal Green Challenge](#) reduced their environmental footprint, resulting in \$42 million in cost savings. To ensure the safety of chemicals, EPA expanded the [ChemView](#) database to include more than

EPA's FY 2014 Performance Results
(Total measures = 197)



8,300 chemicals, including 298 Consent Orders, 73 test rule chemicals, and an additional 1,000 New Chemical Significant New Use Rules.

Achieving goals for safe drinking water, swimmable and fishable streams, cleaner air, and healthier communities and neighborhoods requires not only new strategies and compliance, but also vigorous enforcement. Under its [national enforcement initiatives](#), EPA addressed pollution problems that make a difference in communities, including overburdened communities. For example, [Minnesota Power](#) agreed to install pollution control technology and meet stringent emission rates to reduce harmful air pollution from three coal-fired power plants. The settlement requires the company to pay a civil penalty of \$1.4 million to resolve Clean Air Act violations and spend more than \$500 million on required measures to reduce harmful air emissions by over 13,350 tons annually and at least \$4.2 million on environmental projects to benefit local communities, including a large-scale solar installation system to benefit a local tribe known as the Fond du Lac Band and \$200,000 to the National Park Service to restore wetlands at Voyageurs National Park.

Targets Missed

Despite its best efforts, the Agency missed 43 of its FY 2014 performance measures/targets. There are a number of reasons for missed targets, including an unexpected demand for resources or competing priorities; the impact of sequestration and a changing workforce; the effect of budget cuts on the Agency's state, tribal, and local government partners; and other factors. As an integral part of its performance management process, EPA will continue to regularly review its performance, analyze results, and adjust FY 2015 and FY 2016 programmatic approaches and targets as necessary.

Data Not Available

Because final end-of-year data for some measures were not available when this report went to press, EPA is not able to report on 34 of its 197 performance measures. Often environmental results do not become apparent within a fiscal year, and assessment is a longer-term effort requiring information over time.

Data lags may also result when reporting cycles do not correspond with the federal fiscal year on which this report is based. For example, data reported biennially are not available for this report, though they will be available in the Agency's FY 2015 and FY 2016 *APRs*.

Extensive quality assurance/quality control processes can also delay the reporting of performance data. EPA relies heavily on performance data obtained from state, tribal, and local agencies, all of which require time to collect and review for quality. Where EPA cannot obtain complete end-of-year information from all sources in time for this report, additional FY 2014 results will be available in the Agency's FY 2015 *APR*, which will be included in the *FY 2017 Annual Performance Plan* and the "Program Performance and Assessment" section of the *Congressional Justification* published in 2016.

Previous Fiscal Year Data Now Available

EPA can now report data from FY 2013 that became available in FY 2014. In summary, final performance results became available for 29 of the 37 FY 2013 performance measures (out of a total 196 FY 2013 performance measures) for which data were unavailable at the end of FY 2013. Of these 37 performance measures, EPA met 23 and did not meet seven. Data remain unavailable for seven¹ measures and EPA, in agreement with the Office of Management and Budget retroactively deleted one measure.²

¹ Performance Measure A01: Annual emissions of sulfur dioxide (SO₂) from electric power generation sources; Performance Measure G16: Million metric tons of carbon equivalent (MMTCO₂E) of greenhouse gas reductions in the industry sector; Performance Measure R51: Percentage of all new single-family homes (SFH) in high radon potential areas built with radon reducing features; Performance Measure 630: Five-year average annual loadings of soluble reactive phosphorus (metric tons per year) from tributaries draining targeted watersheds; Performance Measure Mw2: Increase in percentage of coal combustion ash that is beneficially used instead of disposed; Performance Measures SM1: Tons of materials and products offsetting use of virgin resources through sustainable materials management; Performance Measure 143: Percentage of agricultural acres treated with reduced-risk pesticides.

² Performance Measure R22: Estimated annual number of schools establishing indoor air quality management plans consistent with EPA guidance.

Strategic Goal 1:

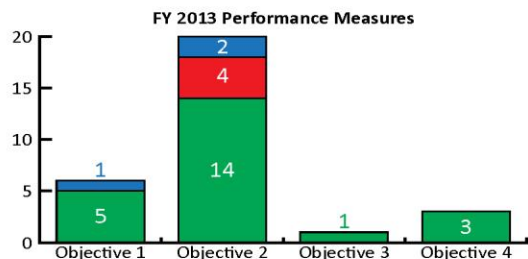
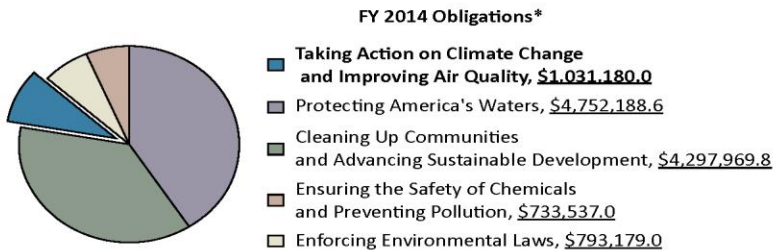
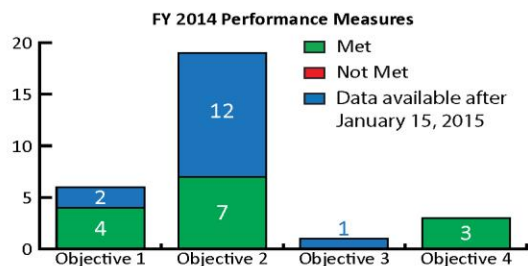
ADDRESSING CLIMATE CHANGE AND IMPROVING AIR QUALITY

Goal 1 at a Glance

ADDRESSING CLIMATE CHANGE AND IMPROVING AIR QUALITY

Reduce greenhouse gas emissions and develop adaptation strategies to address climate change and protect and improve air quality.

FY 2014 Performance Measures
 Met: 14 Not Met: 0 Data Unavailable: 15
 (Total Measures: 29)



Strategic Objective Overview	FY 2014 Obligations*	% of Goal 1 Funds
Objective 1.1: Address Climate Change. EPA is developing common-sense GHG regulatory programs to curb emissions, working with state and local agencies to address sources of GHG emissions; building on its successful partnerships in such areas as the buildings, industry, and transportation sectors; and developing climate adaptation strategies to address the challenges of a changing climate.	\$198,738.1	19%
Objective 1.2: Improve Air Quality. EPA has acted to dramatically improve America's air quality by finalizing air quality standard, implementing health-based ambient air quality standards, proposing regulations to reduce particulate matter for new wood heaters, and proposing that communities neighboring refineries monitor emission are not being exposed to unintended emissions.	\$783,135.1	75%
Objective 1.3: Restore and Protect the Ozone Layer. EPA continues to make progress to restore and protect the ozone layer by reducing U.S. consumption of hydrochlorofluorocarbons (HCFCs)—chemicals that deplete the earth's protective ozone layers.	\$17,675.7	2%
Objective 1.4: Minimize Exposure to Radiation. EPA is on track to meet its strategic objective of minimizing exposure to radiation by maintaining readiness, both in personnel and assets, to support federal radiological emergency response and recovery operations by minimizing unnecessary exposures to radiation, including operating and maintaining RadNet, providing oversight at the Waste Isolation Pilot Plant, and developing important rules and guidance documents.	\$41,627.7	4%
Goal 1 Total	\$1,041,176.6	100%

*All figures in thousands

EPA CONTRIBUTING PROGRAMS

Acid Rain Program

Air Toxics

Clean Air Allowance Trading Programs

Clean Air Research

Indoor Air Quality and Radon Programs

National Ambient Air Quality Standards Development and Implementation

Mobile Sources

New Source Performance Standards

New Source Review

Regional Haze

Stratospheric Ozone Layer Protection Program

Radiation Protection and Emergency Response Programs

Climate Partnership Programs

**STRATEGIC OBJECTIVE 1:
ADDRESS CLIMATE CHANGE.**

Minimize the threats posed by climate change by reducing greenhouse gas emissions and taking actions that help to protect human health and help communities and ecosystems become more sustainable and resilient to the effects of climate change.

EPA implements both partnership and regulatory programs to reduce greenhouse gases (GHGs) that contribute to the warming of the planet's climate. Businesses and other organizations have partnered with EPA through voluntary climate protection programs to pursue common-sense approaches to reducing GHGs. In conjunction with its partnership programs, EPA pursues regulatory approaches to reduce emissions from mobile and stationary sources. EPA's strategies to address climate change reflect the President's Climate Action Plan (June 2013), which, among other initiatives, tasks EPA with setting carbon dioxide (CO₂) standards for power plants and applying its authorities and other tools to address hydrofluorocarbons (HFCs) and methane through the Interagency Methane Strategy.

Summary of Progress

EPA continues to address the challenges of a changing climate and is on track to meet its strategic measures supporting this objective. EPA is developing common-sense GHG regulatory programs to curb emissions, working with state and local agencies to address sources of GHG emissions; building on its successful partnerships in such areas as the buildings, industry, and transportation sectors; and developing climate adaptation strategies.

At the macro level, environmental indicators show an overall increase in GHG emissions since 1990.³ At the program level, EPA's efforts are achieving real emission reductions; in 2012, EPA worked with the building, industry, and transportation sectors to avoid 638.9 million metric tons of CO₂ equivalents. In June 2013, the President released the Climate Action Plan, which outlined various actions the United States will undertake to cut carbon pollution, prepare the country for the impacts of climate change, and lead international efforts to address climate change. As part of the President's Climate Action Plan, EPA is actively developing and implementing regulations in a number of areas, including the electricity generation and transportation sectors—the two largest sources of carbon pollution in the United States.⁴ Also as part of the Climate Action Plan, the President released the Interagency Methane Strategy in March 2014. This comprehensive strategy tasks EPA to cut methane emissions from key sectors—landfills, coalmines, agriculture, and oil and gas.

³ Despite increases in U.S. GHG emissions from 1990 to 2012 overall, emissions decreased between 2007 and 2011. This decline was seen for nearly all gases and sectors. The decrease in emissions can largely be attributed to lowered energy use due to slower economic growth and to fuel switching from coal to natural gas—a less carbon-intensive fuel—as the cost of natural gas decreased compared with the cost of coal. For more details, see EPA. 2014. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2012*.
<http://epa.gov/climatechange/ghgemissions/usinventoryreport.html>

⁴Executive Office of the President. 2013. *The President's Climate Action Plan*.
<http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf>
White House. 2013. "Presidential Memorandum—Power Sector Carbon Pollution Standards."
<http://www.whitehouse.gov/the-press-office/2013/06/25/presidential-memorandum-power-sector-carbon-pollution-standards>

EPA continues to make significant progress integrating climate adaptation planning into its programs, policies, rules, and operations in support of executive order 13653. The goal of these efforts is to ensure that EPA continues to fulfill its mission to protect human health and the environment even as the climate changes, and to empower states, tribes, and local communities to increase their resilience and prepare for and respond to the impacts of climate change. EPA supports climate-resilient investments in communities across the country, and provides data, other information, and tools communities need to integrate climate adaptation into the work they do.⁵

GROUNDBREAKING CLEAN POWER PLAN OUTREACH

EPA Regions 4 and 10 served as regional leads partnering with the National Program for unprecedented outreach on the President's Clean Power Plan, a groundbreaking plan to reduce greenhouse gases from existing electric generation facilities for the first time on a national level. EPA regions met with groups of stakeholders across the U.S. to explain the proposed rule that incorporates energy efficiency, renewable energy, and flexibility.

Key FY 2014 Performance Results

FY 2014–2015 Agency Priority Goal

Through September 30, 2015, EPA, in coordination with the Department of Transportation's fuel economy standards program, will be implementing vehicle and truck GHG standards that are projected to reduce GHG emissions by 6 billion metric tons and reduce oil consumption by about 12 billion barrels over the lifetime of the affected vehicles and trucks.

This Agency priority goal focuses on implementing EPA's light-duty (model year 2012–2016) and heavy duty (model year 2014–2018) vehicle GHG standards. The primary strategy for implementation consists of certifying new vehicles as meeting the standards, receiving and reviewing manufacturer final GHG reports to ensure that manufacturers meet their vehicle fleet requirements, and ensuring that the certified GHG results are achieved under actual in-use operation.

As of September 30, 2014, EPA issued a total of 843 certificates for both light-duty and heavy-duty vehicles and conducted a total of 177 confirmatory tests and 20 surveillance tests of both light-duty and heavy-duty vehicles at the Ann Arbor Laboratory test track, fully achieving its FY 2014 annual performance targets. For more information, see <http://www.performance.gov/content/reduce-greenhouse-gas-emissions-cars-and-trucks>.

Clean Power Plan Proposal

States, cities, and businesses across the country are taking action to address the risks of climate change. In June 2014, EPA proposed a common-sense plan to cut carbon pollution from power plants. EPA's proposal builds on those actions and is flexible—reflecting the important role of states as full partners with the federal government in cutting pollution and acknowledging that

⁵ See <http://www.epa.gov/climatechange/impacts-adaptation/> for EPA adaptation actions that fulfill commitments made in the President's *Climate Action Plan*.

states have different mixes of sources and opportunities. This proposal will maintain an affordable, reliable energy system, while cutting pollution and protecting human health and the environment now and for future generations.

**FIRST-EVER PERMITS TO SEQUESTER
CARBON FROM COAL-FIRED POWER
PLANTS**

Region 5 issued the nation's first permits to sequester carbon from a coal-fired power plant. Four Underground Injection Control Program (UIC) Class VI permits were issued to allow the FutureGen project—an oxy-combustion coal plant in Illinois—to inject over 25 million metric tons of carbon dioxide into a deep geologic formation. Additionally, Region 5 issued a Class VI permit to sequester carbon dioxide at an Illinois ethanol plant.

Power plants account for roughly one-third of all domestic GHG emissions in the United States. While there are limits in place for the levels of arsenic, mercury, sulfur dioxide, nitrogen oxides, and particle pollution that power plants can emit, there are currently no national limits on carbon pollution levels. Full implementation of the Clean Power Plan will lead to climate and health benefits worth an estimated \$55 billion to \$93 billion in 2030, including avoiding 2,700 to 6,600 premature deaths and 140,000 to 150,000 asthma attacks in children. The Plan will put Americans to work while cutting emissions from the U.S. electricity system and making our homes and businesses more efficient, shrinking electricity bills by roughly 8 percent in 2030 relative to the projected baseline.

New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills

In July 2014, the Agency proposed updates to its new source performance standards for municipal solid waste landfills to reduce emissions of methane-rich gas from landfills constructed, modified, or reconstructed in the future. The proposal is part of EPA's methane strategy under the President's *Climate Action Plan*. In addition, the Agency issued an advance notice of proposed rulemaking seeking public feedback on options for further reducing methane emissions from existing landfills.

Under the proposal, landfills subject to the rule would capture two-thirds of their methane and air toxics emissions by 2023—13 percent more than they must capture under current regulations. Methane, in addition to its significant global warming potential, is also a precursor to ground-level ozone, a health-harmful air pollutant associated with health effects including premature mortality, lung damage, asthma aggravation and other respiratory symptoms. Nearly 30 organic hazardous air pollutants have been identified in uncontrolled landfill gas, including benzene, toluene, ethyl benzene and vinyl chloride.

Regulatory and partnership programs have helped reduce methane emissions from landfills by 30 percent from 1990 to 2012; however, landfill methane emissions remain a concern and are the third-largest source of human-related methane emissions in the United States, accounting for 18 percent of methane emissions in 2012.⁶

⁶ Total U.S. methane emissions were just below 600 MMTCO₂E in 2012. See EPA. 2014. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2012*. <http://www.epa.gov/climatechange/ghgemissions/gases/ch4.html>.

Oil and Gas White Papers

In April 2014, the Agency released five technical white papers for external peer review on potentially significant sources of emissions in the oil and gas sector. The white papers focus on technical issues covering emissions and mitigation techniques that target methane and volatile organic compounds (VOCs).

As noted in EPA's Methane Strategy under the President's *Climate Action Plan*, the Agency will use the papers, along with the input we receive from the peer reviewers and the public, to determine how to best pursue additional reductions from the oil and gas sector. The five white papers cover: compressors, emissions from completions and ongoing production of hydraulically fractured oil wells, leaks, liquids unloading, and pneumatic devices. The white papers and the comments received are posted at <http://www.epa.gov/airquality/oilandgas/whitepapers.html>.

Greenhouse Gas Reporting Program

Established in October 2009, the Greenhouse Gas Reporting Program (GHGRP) covers 41 industry sectors, with approximately 8,000 reporters. This program includes data on direct emissions from large stationary sources (which account for about half of total U.S. GHG emissions) and also data from suppliers of materials that would emit GHGs when burned or released.

In September 2014, EPA released new GHG data for 2013. According to these data, GHG emissions declined by 3.9 percent for those sources covered by GHGRP in the past three reporting years (2011–2013). However, they increased by 0.62 percent from 2012 to 2013. The increase was driven by an increase in power plant emissions. Power plants are the largest source of U.S. GHG emissions, with over 1,550 facilities emitting over 2 billion metric tons of CO₂—roughly 32 percent of total U.S. GHG pollution. Power plant emissions have declined by 9.8 percent since 2010, but an increased use of coal caused an uptick in emissions of 13 million metric tons in 2013.

Petroleum and natural gas systems were the second largest stationary source in 2013, reporting 224 million metric tons of GHG emissions, a decrease of 1 percent from the previous year. Reported methane emissions from petroleum and natural gas systems have decreased by 12 percent since 2011; the largest reductions came from hydraulically fractured natural gas wells, which decreased by 73 percent during that period. EPA expects to see further emission reductions as its 2012 standards for the oil and gas industry are implemented.

Performance Challenges

Delivering the Clean Power Plan

EPA is striving to meet the demands of delivering the Clean Power Plan, President Obama's top priority for EPA and the central element of the U.S. domestic climate mitigation agenda. In the latter part of 2015, the Agency will finalize standards for new power plants under §111(b), standards for existing power plants under §111(d), and a supplemental proposal covering tribes and territories. This is a huge undertaking involving multiple complex regulatory processes and

extensive and unprecedented work with states, tribes, and territories to ensure successful implementation. In addition, EPA must respond to an extraordinary number of public comments on rules and continue to work through an increasing number of court-ordered deadlines, often with the same at-capacity staff.

**STRATEGIC OBJECTIVE 1.2:
IMPROVE AIR QUALITY.**

Achieve and maintain health- and welfare-based air pollution standards and reduce risk from toxic air pollutants and indoor air contaminants.

EPA's clean air programs, including those addressing indoor air and outdoor air (six common criteria pollutants, acid rain, and air toxics) focus on some of the highest risks to human health and environment faced by the country. EPA estimates that federal, state, local, and tribal indoor and outdoor air quality programs established under the Clean Air Act (CAA) are responsible every year for preventing many thousands of premature mortalities, millions of incidences of chronic and acute illness, tens of thousands of hospitalizations and emergency room visits, and millions of lost work and school days.

Summary of Progress

EPA is on track to meet its strategic targets supporting this objective. By way of context, between 1980 and 2013, gross domestic product increased 145 percent, vehicle miles traveled increased 95 percent, energy consumption increased 25 percent, and the U.S. population grew by 39 percent. During the same period, total emissions of the six principal air pollutants dropped by 62 percent. Environmental indicators related to air toxics show improving outdoor air quality trends,⁷ and continued progress in preventing lung cancer deaths from radon exposure and reducing adverse asthma health outcomes. Despite significant progress in improving air quality, in 2013 approximately 75.4 million people nationwide lived in counties with pollution levels above the primary National Ambient Air Quality Standard (NAAQS) and emissions of air pollutants continued to impact air quality and human health.

In recent years, EPA has acted to dramatically improve America's air quality by designing and developing national programs that, when fully implemented, will achieve significant gains in human health. These actions include finalizing standards that will improve air quality and save money at the gas pump, implementing health-based ambient air quality standards grounded in the best available scientific research, proposing regulations to ensure that all new wood heaters will emit significantly less particulate matter into communities, and proposing for the first time that refineries monitor emission in such a way that neighboring communities are not being exposed to unintended emissions. EPA also helped reduce risks of indoor air pollution by characterizing the risks to human health, developing techniques for reducing those risks, and educating the public and key sectors about actions they can take to reduce risks from indoor air.

⁷ See EPA's [2014 Report on the Environment](#) for data related to: "Ambient Concentrations of Particulate Matter," "Ambient Concentrations of Ozone," and "Air Toxics Emissions."

Key FY 2014 Performance Results

Tier 3 Vehicle Emission and Fuel Standards Program

In March 2014, EPA finalized Tier 3 Motor Vehicle Emissions and Fuel Standards for cars and gasoline that will significantly reduce harmful pollution, preventing thousands of premature deaths and illnesses, while also enabling efficiency improvements in cars and trucks. The Tier 3 program is part of a comprehensive approach to reducing the impacts of motor vehicles on air quality and public health. The vehicle standards will reduce both tailpipe and evaporative emissions from passenger cars, light-duty trucks, medium-duty passenger vehicles, and some heavy-duty vehicles.

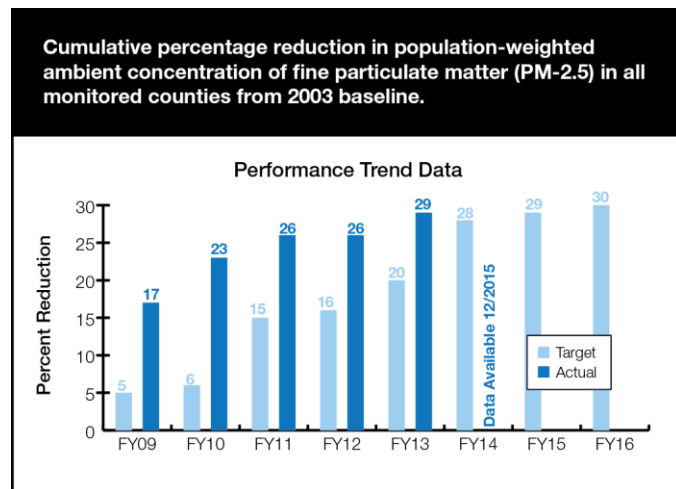
The final fuel standards reduce gasoline sulfur levels by more than 60 percent—down from 30 to 10 parts per million in 2017. By 2018, EPA estimates the cleaner fuels and cars will annually prevent between 225 and 610 premature deaths, significantly reduce ambient concentrations of ozone, and reduce nitrogen oxide emissions by about 260,000 tons. By 2030, EPA estimates the standards will help avoid up to 2,000 premature deaths; 50,000 cases of respiratory ailments in children; 2,200 hospital admissions and asthma-related emergency room visits; and 1.4 million lost school days, work days, and days when activities would be restricted due to air pollution. The final standards, when fully implemented, are expected to provide more than 13 dollars in health benefits for every dollar spent to meet the standards.

Near-Road Monitoring Network

As part of the revised 2010 nitrogen dioxide (NO₂) NAAQS, states are required to establish a near-road monitoring network to determine their attainment status for NO₂. In January 2014, the first phase of the Near-Road Monitoring Network became operational. EPA has been working with its state partners to bring the second phase of the network online in January 2015.

In addition to establishing this network, EPA required that 40 monitoring sites be located in areas near susceptible and vulnerable populations. Moving forward, states will also monitor other pollutants at these sites, including carbon monoxide and fine particles. This will expand our

understanding of air quality issues in these heavily populated areas where people live, work, and play.



New Source Performance Standard for Residential Wood Heaters

On January 3, 2014, EPA proposed updates to Clean Air Act standards for residential wood heaters to make new wood heaters significantly cleaner than current models. The proposed updates strengthen the emissions standards for new wood stoves, while establishing federal air standards for

other new wood heaters, including outdoor and indoor wood-fired boilers (also known as hydronic heaters).

Smoke from residential wood heaters, which are used around the clock in some areas, can increase particle pollution to levels that pose serious health concerns. The proposed standards for residential wood heaters are expected to reduce emissions of fine particle pollution from new manufactured woodstoves, pellet stoves, hydronic heaters, and forced air furnaces by an estimated 4,825 tons per year—an 80 percent reduction over estimated emissions without the rule.

Rules for the Refinery Sector

On May 15, 2014, EPA issued a proposed rule that would further control toxic air emissions from petroleum refineries as well as set emission control requirements for storage tanks, flares, and coking units at petroleum refineries.

When fully implemented, the provisions in this rule will result in a reduction of 5,600 tons per year of toxic air pollutants and 52,000 tons per year of VOCs. Also, as a co-benefit of these proposed standards, EPA projects that emissions of approximately 700,000 metric tons of CO₂ equivalents will be eliminated.

Reducing Risk from Diesel Emissions in Communities

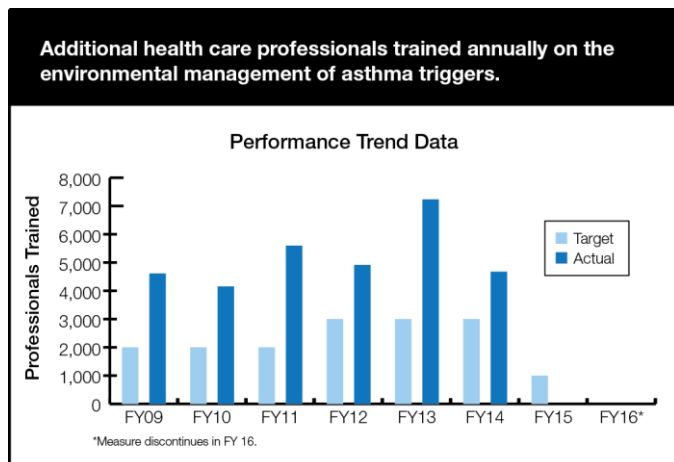
Between 10 and 11 million older diesel engines in use today emit large amounts of nitrogen oxides and particulate matter. Health impacts from these pollutants are most acute in populations that are near these engines in use. The Diesel Emissions Reduction Act Grant Program supports immediate, cost-effective emission reductions to communities overburdened by poor air quality and disproportionate diesel exhaust. In 2014, EPA targeted special grant opportunities for tribes and communities near ports. Fenceline communities near ports suffer disproportionately from exhaust emitted from diesel vehicles, equipment, and vessels used in the movement of goods. In 2014, EPA addressed these emissions through a ports-only grant opportunity to upgrade or replace equipment that will generate thousands of tons of criteria pollutant reductions, along with fuel savings and GHG reductions.

In 2014, EPA responded to requests from tribes by implementing a tribes-only grant program. Tribal applications more than doubled from the previous year, and four tribal grants went forward for award. These grants will lower diesel exhaust by repowering older diesel engines on tribal fishing vessels and upgrading school buses used to transport children on tribal lands. The estimated lifetime health benefits for these ports and tribal projects are up to \$140 million.

CLEARING THE HAZE

EPA Region 9 developed three federal implementation plans for air quality that will reduce emissions of sulfur dioxide (SO₂) by 29,300 tons per year and nitrogen oxides (NO_x) by 22,100 tons per year. The plans will improve visibility in 18 [protected national parks in the Pacific Southwest](#), protect public health, and help transition the region to cleaner power. The two [Arizona federal plans](#) reduce pollution from seven facilities, and the [Navajo Nation plan](#) will reduce emissions of NO_x from the Navajo Generating Station by 80%. In developing the plans, Region 9 conducted extensive outreach with the State and Tribe, the public, and the impacted facilities; held five public hearings and over 50 consultation meetings with tribes; and, responded to 77,000 public comments.

Childhood Asthma Risk Reduction



In 2014, EPA successfully completed a 10-year initiative to train health care professionals to address environmental asthma management as part of comprehensive asthma care and launched a new initiative to address the next important gap in comprehensive asthma care: equipping housing, environmental, and health insurance programs to effectively support delivery, infrastructure and sustainable financing of environmental asthma interventions at home and school.

Over the last decade, EPA has worked to build health care providers' capacity to deliver guidelines-based asthma care that includes a focus on environmental asthma trigger management. As a result of EPA's investment, approximately 45,700 healthcare professionals—8,000 in FY 2014—have now been directly trained to address environmental asthma management as part of comprehensive asthma care; national clinical practice guidelines now include indoor environmental interventions; and sustainable systems are now in place to support ongoing training, including accredited online continuing education courses.

EPA/STATE IMPLEMENTATION PLAN EFFORT

EPA Region 7 led the development of a national framework for coordinating SIP planning with states, including development, submittal, and EPA final action. This framework, or 4-Year Plan, provides a planning tool for the reduction of SIP backlogs and supports EPA in meeting Clean Air Act timeframes. Region 7 manages AirTrax, a national database that populates the National SIP Tracking Report, an integral tool the air program uses to manage SIPs.

Cleaner Cookstoves Research

Cookstove smoke is a major contributor to indoor air pollution in developing countries, causing approximately 4 million premature deaths annually and a wide range of illnesses according to the World Health Organization. Still, nearly half of the people in the world depend on burning coal and biomass (wood, charcoal, crop residues, and dung) in rudimentary cookstoves or open fires to cook their food. EPA is an international leader in research efforts to develop and encourage adoption of cleaner-burning stoves and fuels and in FY 2014 supported over \$15 million worth of research on the environmental and health implications of cookstoves. The outcome of the research will be healthier air for millions, and a more stable climate.

Performance Challenges

Impact of Legal Challenges

EPA faces ongoing legal challenges as it strives to meet its responsibilities under the CAA. For example, 12 rulemakings representing 18 stationary source categories are currently under court-ordered deadlines, and the Agency is in negotiation with litigants regarding a [notice of intent](#) to sue on 46 additional standards.

Due to resource constraints, EPA is precluded from addressing all regulatory reviews statutorily mandated by the CAA. Work is prioritized to meet court-ordered deadlines. There are over 80 stationary source (air toxics) rules due for review under Section 112 of the CAA, and the Agency is expecting litigation over already-missed deadlines. The Agency also faces a heavy workload related to implementation of the NAAQS, including citizen petitions opposing state-issued operating permits, designating areas not attaining the NAAQS, and challenges approving State Implementation Plans.

**STRATEGIC OBJECTIVE 1.3:
RESTORE AND PROTECT THE OZONE LAYER.**

Restore and protect the earth's stratospheric ozone layer and protect the public from the harmful effects of ultraviolet (UV) radiation.

EPA's Stratospheric Ozone Protection Program implements the provisions of the CAA and the Montreal Protocol on Substances That Deplete the Ozone Layer that reduce and control ozone-depleting substances (ODS) and facilitate the transition to substitutes that reduce GHG emissions and save energy.

Summary of Progress

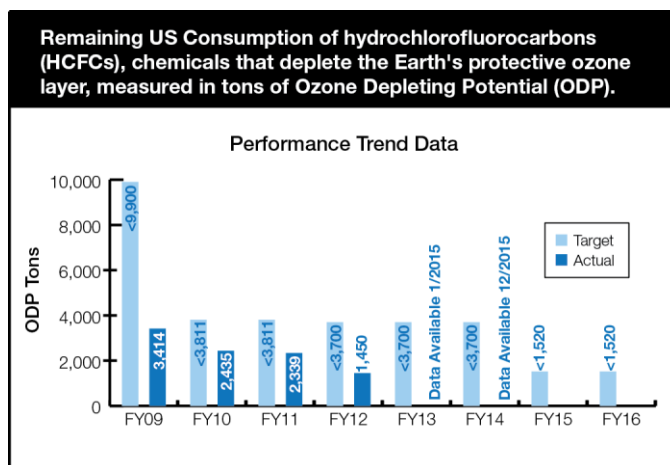
The EPA, in consultation with the Office of Management and Budget, has determined that performance toward this objective is making noteworthy progress. EPA continues to lead progress domestically and internationally in efforts to restore and protect the ozone layer. Domestically, the Agency is making progress as anticipated in the [FY 2014–2018 EPA Strategic Plan](#), which states that by 2015, U.S. consumption of hydrochlorofluorocarbons (HCFCs)—chemicals that deplete the earth's protective ozone layer—will be less than 1,520 tons per year of ozone depletion potential (ODP) from the 2009 baseline of 9,900 tons per year. Final FY 2013 data indicate that the United States has reduced HCFC consumption to 1,640 tons. EPA expects that, as a result of worldwide reduction in ODSs, the level of “equivalent effective stratospheric chlorine” in the atmosphere will have peaked at 3.185 parts per billion (ppb) of air by volume by 2015, and begun its gradual decline to less than 1.800 ppb (the 1980 level).

Key FY 2014 Performance Results

Phaseout of ODSs

As a party to the Montreal Protocol, the United States must incrementally decrease HCFC consumption and production, culminating in a complete HCFC phaseout in 2030. The major milestones for the United States and other developed countries are a reduction in 2015 to at least 90 percent below the HCFC ODP weighted baseline and in 2020 to at least 99.5 percent below that baseline. Working with industry, NGOs, and public sector stakeholders, the Agency is making more progress than originally anticipated in the performance measures associated with the strategic plan, which states that by 2013, U.S. consumption of HCFCs will be less than 3,700 tons per year of ODP.

Final 2013 data indicate that the United States has reduced HCFC consumption to 1,641 tons—a level that is over 50 percent lower than the performance measure level. In FY 2014, the program ensured compliance with CAA and Montreal Protocol requirements restricting U.S.



consumption of HCFCs through regulations established in 2013 that allocated HCFCs through 2014. EPA ensured compliance with these regulations through data reporting requirements that monitor the availability of consumption and production allowances. In partnership with Customs and Border Protection, EPA validated regulatory compliance of HCFC imports and worked to stop illegal shipments.

EPA must ensure that ODS production and import caps under the Montreal Protocol are met by continuing to implement the domestic rulemaking agenda for reduction and control of ODS. During 2014, actions toward this end included developing a final rule that sharply reduced HCFC allocations for 2015–2019 and in 2020 phases out HCFC-22, the most common HCFC.

As the allowed amount of ODSs continues to decline, the demands for flexibility and specific, tailored solutions to key problems grow. For example, EPA manages ongoing exemption programs to allow low-quantity continued production of ODS in areas of critical need. In FY 2014, EPA developed a proposed rule to continue to allow for small quantities of ODSs for essential laboratory and analytical uses. In 2014, EPA also developed critical-use nominations for methyl bromide; in July, EPA published a final rule that allocated critical-use methyl bromide for 2014 and 2015.

Performance Challenges

Challenges in the Phaseout of ODSs

HCFC-225 is a solvent used in aerospace and limited national defense applications by the Department of Defense (DoD) and the National Aeronautics and Space Administration (NASA). HCFC-225 was slated for a use ban beginning in 2015 under the CAA. However, development of, and transition to, HCFC-225 alternatives has proceeded slowly, due to the highly demanding technical requirements of the defense and aerospace applications at issue. In 2014, in order to support the needs of NASA and DoD, EPA worked to establish a de minimis exemption within HCFC phaseout regulations that would allow for the continued use of existing stocks of HCFC-225 by NASA and DoD.

By allowing the continued use of existing stocks of HCFC-225 beyond December 31, 2014, EPA helped avoid significant decommissioning of otherwise useful aerospace and national defense assets. This provides significant savings and mission support. Existing regulations do not allow for additional production of HCFC-225, so EPA does not expect a negative environmental outcome of the exemption.

**STRATEGIC OBJECTIVE 1.4:
MINIMIZE EXPOSURE TO RADIATION.**

Minimize releases of radioactive material and be prepared to minimize exposure through response and recovery actions should unavoidable releases occur.

EPA works with local, national, and international stakeholders to develop and use voluntary and regulatory programs, public information, and training to reduce public exposure to radiation. EPA conducts radiation risk assessments, including updating its scientific methodology, modeling, and technical tools for generating radionuclide-specific cancer risk coefficients to address sensitive population groups. Risk managers across the country use this information to assess health risks from radiation exposure and determine appropriate levels for cleanup of radioactively contaminated sites.

Summary of Progress

EPA is on track to meet its strategic objective of minimizing exposure to radiation by maintaining readiness, both in personnel and assets, to support federal radiological emergency response and recovery operations. EPA's regulatory and non-regulatory activities support its mission to protect human health and the environment by minimizing unnecessary exposures to radiation, including operating and maintaining RadNet, providing oversight at the Waste Isolation Pilot Plant (WIPP), and developing important rules and guidance.

Key FY 2014 Performance Results

EPA Regulatory Oversight at the Department of Energy's Waste Isolation Pilot Plant

In February 2014, a small amount of radioactive material was released into the air from the Department of Energy's (DOE's) Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico. WIPP is a deep geologic repository for transuranic waste: equipment, debris, soil, and other items contaminated with radioactive elements from the nation's nuclear defense program. EPA provided critical oversight in the response and recovery at WIPP, verifying that there were no significant offsite releases, that there was no threat to public health, and that the facility remains in compliance with EPA regulations. Additional investigation into the cause of the release, along with other oversight actions, need to be completed before WIPP will resume normal operations.

EPA continues to coordinate closely with the New Mexico Environment Department and other affected stakeholders to share information and facilitate communications with DOE.

As follow-up to the incident, DOE must provide to EPA a written plan for addressing the areas for improvement identified in EPA's summary report. In response, DOE has issued a general recovery plan for WIPP outlining what it will do to re-open the facility and resume normal operations, and has begun developing a more detailed recovery plan.

In its lead role in response to this radiation release incident, EPA successfully demonstrated its ability to respond quickly, assess the situation, reach out to federal and state partners, and

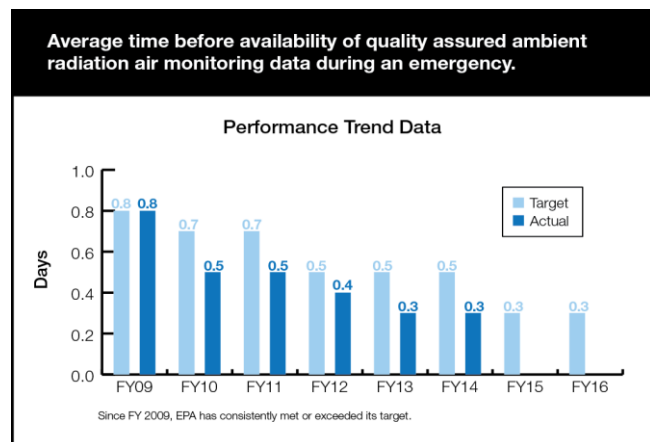
coordinate with stakeholders to ensure and to verify that the radiation release to the environment was minimal and posed no threat to public health and the environment. Completed reports related to the release are posted at <http://www.epa.gov/radiation/wipp>.

Performance Challenges

Maintaining EPA’s Radiation Emergency Response Program Readiness

Recent events, including the WIPP incident and Fukushima, emphasize the importance of maintaining our radiation emergency response preparedness. Radiation incidents are unexpected and could represent a significant public health threat. Through its personnel and assets, EPA plays an important role in emergency response. Maintaining a high level of readiness requires a steady level of funding to support both personnel and assets, which can be a challenge in a time of fiscal constraint.

In particular, EPA’s RadNet monitors the nation’s air, drinking water, and precipitation to determine levels of radiation in the environment. In a radiological incident, RadNet provides important baseline data on background levels of radiation in the environment as a point of comparison to detect increased radiation. It is critical that EPA maintain its emergency response readiness, including updating the RadNet monitor technology and associated communications capability, to ensure provision of timely, quality-assured data.



Responding to radiation incidents is complex and requires coordination across all levels of government. EPA continues to cultivate existing relationships and establish new ones in support of the Agency’s role in the National Response Framework, which provides context for how the response community works together and how federal response efforts should be coordinated.

Strategic Goal 2:

PROTECTING AMERICA'S WATERS

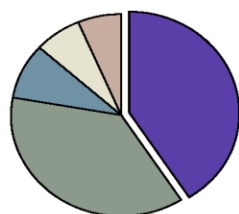
Goal 2 at a Glance

PROTECTING AMERICA'S WATERS

Protect and restore waters to ensure that drinking water is safe and sustainably managed, and that aquatic ecosystems sustain fish, plants, wildlife, and other biota, as well as economic, recreational, and subsistence activities.

FY 2014 Performance Measures

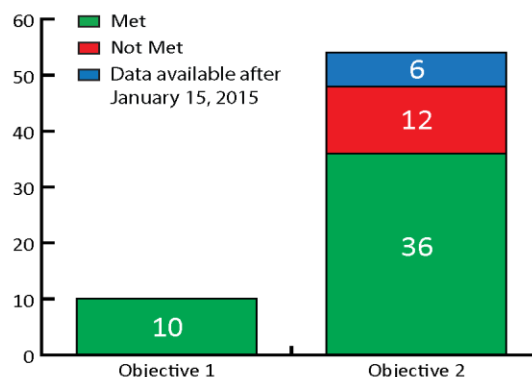
Met: 46 Not Met: 12 Data Unavailable: 6
(Total Measures: 64)



FY 2014 Obligations*

Taking Action on Climate Change and Improving Air Quality, \$1,031,180.0
Protecting America's Waters, \$4,752,188.6
Cleaning Up Communities and Advancing Sustainable Development, \$4,297,969.8
Ensuring the Safety of Chemicals and Preventing Pollution, \$733,537.0
Enforcing Environmental Laws, \$793,179.0

FY 2014 Performance Measures



Strategic Objective Overview	FY 2014 Obligations*	% of Goal 2 Funds
Objective 2.1: Protect Human Health. EPA has made progress addressing the safety of our nation's drinking water through collaborating between federal agencies, tribes, states and local water utilities to support the Drinking Water State Revolving Fund (DWSRF), development of recreational water quality criteria, evaluation of monitoring data, and working closely with states through capacity development and optimization programs to enhance small system sustainability, principally through optimization trainings and state-EPA workgroups and products.	\$1,371,268.1	29%
Objective 2.2: Protect and Restore Watersheds and Aquatic Ecosystems. EPA is making steady progress in protecting and restoring watersheds and aquatic ecosystems, despite the challenges from population growth, aging infrastructure, and climate change. Key activities include, updating water quality standards, implementing the National Pollutant Discharge Elimination System (NPDES) permit program, conducting monitoring and assessment, implementing practices to reduce pollution from agricultural and urban runoff (e.g., nonpoint sources), protecting wetlands and habitat, and developing total maximum daily loads (TMDLs) to reduce pollutants.	\$3,380,920.5	71%
Goal 2 Total	\$4,752,188.6	100%

*All figures in thousands

EPA CONTRIBUTING PROGRAMS

Analytical Methods
Beach Program
Coastal and Ocean Programs
Chesapeake Bay
Children's Health Protection
Clean Water State Revolving Fund
Columbia River Estuary Partnership
Commission for Environmental Cooperation
Cooling Water Intakes
Drinking Water and Ground Water Protection Programs
Drinking Water Research
Drinking Water State Revolving Fund
Effluent Guidelines
Fish Consumption Advisories
Great Lakes
Gulf of Mexico
Human Health and Ecosystem Protection Research
Human Health Risk Assessment
Long Island Sound
Mercury Research
National Environmental Monitoring Initiative
National Estuary Program/Coastal Waterways
National Pollutant Discharge Elimination System
Nonpoint Source Pollution Control
Other Geographic Programs (including Lake Pontchartrain and Northwest Forest),
Lake Champlain, San Francisco Bay Delta Estuary, South Florida
Persistent Organic Pollutants
Pollutant Load Allocation
Puget Sound
Surface Water Protection Program
Sustainable Infrastructure Program
Total Maximum Daily Loads
Trade and Governance
Underground Injection Control Program
U.S.-Mexico Border
Wastewater Management
Water Efficiency
Water Monitoring
Water Quality Research
Water Quality Standards and Criteria
Watershed Management
Wetlands Marine Pollution

**STRATEGIC OBJECTIVE 1:
PROTECT HUMAN HEALTH.**

Achieve and maintain standards and guidelines protective of human health in drinking water supplies, fish, shellfish, and recreational waters, and protect and sustainably manage drinking water resources.

A key component of this objective is to protect public health by ensuring that public water systems deliver safe drinking water to their customers. To achieve this objective, EPA must work to maintain previous gains: drinking water systems of all types and sizes that are currently in compliance will work to remain in compliance. The Agency will make efforts to bring non-complying systems into compliance and to ensure that all systems will be prepared to comply with the new regulations.

Summary of Progress

EPA has made progress addressing the safety of our nation's drinking water, with over 93 percent of the nation's population served by community water systems (CWSs) receiving drinking water that meets all applicable health-based drinking water standards in FY 2014. The following four examples highlight how EPA is making progress toward its drinking water objective in collaboration with states, tribes and local utilities:

- 1) Through the DWSRF, EPA helps ensure reliable delivery of safe water to people served by small water systems by funding infrastructure improvements, with 70 percent of assistance agreements going to drinking water systems serving fewer than 10,000 people. This funding supports EPA's cross-agency strategy of making a visible difference in communities, especially in rural and disadvantaged areas.
- 2) EPA is achieving its priority goal of working closely with states through capacity development and optimization programs to enhance small system sustainability, principally through optimization trainings and state-EPA workgroups and products. These activities improve the states' capability to help small systems, including drinking water systems on tribal lands, address their technical, managerial, and financial needs.
- 3) If adopted by states, EPA's 2012 recreational water quality criteria recommendations⁸ will protect the public from exposure to harmful levels of fecal pathogens.
- 4) More than 2,000 public water systems participating in the Unregulated Contaminant Monitoring Rule⁹ survey provided drinking water monitoring data for 30 unregulated contaminants; these data support decisions on whether to establish health-based standards to protect drinking water.

⁸ For more information on recreational water quality criteria, see <http://water.epa.gov/scitech/swguidance/standards/criteria/health/recreation/>

⁹ For more information on UCMR, see <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/>

FY 2014 Performance Accomplishments

FY 2014–2015 Agency Priority Goal

By September 30, 2015, EPA will engage with an additional ten states (for a total of 30 states) and three tribes to improve small drinking water system capability to provide safe drinking water, an invaluable resource.

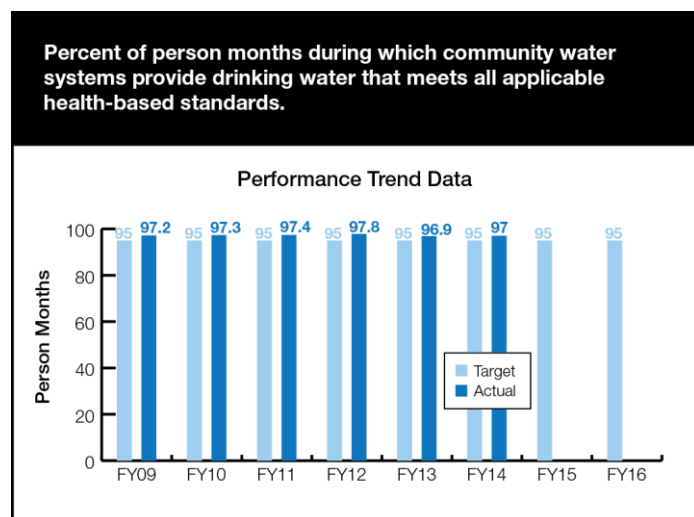
As of September 30, 2014, eight states have substantially increased their participation in capacity development program activities beyond previous levels or begun to participate in the treatment optimization program.

- In August, EPA launched a state-EPA workgroup to re-energize the operator certification program. Sixteen states volunteered to participate, indicating much enthusiasm for sharing best practices and identifying opportunities for program improvements.
- The tribal component of this Agency priority goal, intended to pilot state optimization program elements with several tribes in Region 4, has garnered tribal interest beyond the target group. Tribes outside Region 4—specifically Mandan, Hidatsa, and Arikara Nation affiliated tribes in North Dakota—have agreed to participate in water sector emergency readiness exercises.

States continued to be challenged by limited resources, which makes it difficult to engage with EPA through this goal. Meanwhile, staff limitations make it challenging for EPA to develop projects with states or hold webinars on state best practices and small system sustainability activities.

Challenges to small drinking water system compliance include aging infrastructure, increased regulatory requirements, workforce shortages/high turnover, increasing operational costs, declining rate bases, and extreme natural disasters/weather events.

Community Water Systems Performance



A primary gauge of community water system performance is the person-months performance measure. For this measure, person-months for each CWS are calculated as the number of months in the most recent four-quarter period in which health-based violations overlap, multiplied by the retail population served. The measure includes maximum contaminant level (MCL), maximum residual disinfection limit (MRDL), and treatment technique violations; it covers any violations from currently open and closed CWSs that overlap any part of the most recent four

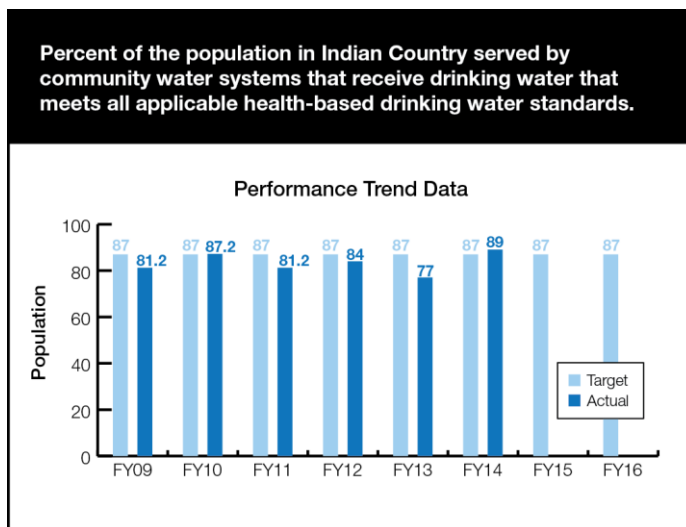
quarters. The EPA Office of Ground Water and Drinking Water (OGWDW) calculates the measure using data reported in the [Safe Drinking Water Information System-Federal \(SDWIS-FED\)](#).

The person-month measure achieved the 2014 target of 95 percent: during 96.7 percent of the person-months over a 12-month period, CWSs provided drinking water that met all applicable health-based drinking water standards. The success of the measure is attributed to a national decrease in treatment technique violations that occur at the largest water systems, as well as how states are addressing background drinking water contaminants (e.g., arsenic) that chronically challenge water systems. This performance also reflects the long-term efforts of the states and EPA to minimize any health-based violations, while building appropriate technical, managerial and financial system capability.

Drinking Water in Indian Country

EPA calculates this measure using data reported in [EPA’s Safe Drinking Water Information System/FED](#). This measure includes federally regulated MCL, MRDL, and treatment technique violations; it covers any violations from currently open and closed CWSs in Indian Country that happened during any of the most recent four quarters.

The tribal population measure met the 2014 goal of 87 percent, with a FY 2014 end of year performance result of 88.6 percent. This is the first time since 2010 that this measure



has met its annual target. EPA’s success this year is attributed to the regional programs’ diligence in completing sanitary surveys, which offered an opportunity to identify potential issues and provide technical assistance to tribal utilities. In addition, regional programs and HQ continued extensive coordination through our federal partnerships specifically with the Indian Health Service to assist tribally owned and operated public water systems deliver safe drinking water that meets all health-based standards to their customers.

DROUGHT RESPONSE STRATEGY

EPA Region 9 developed and began implementing a first-ever Drought Response Strategy to: (1) provide emergency relief for vulnerable tribes and small communities; (2) collaborate with water agencies to find and fix leaks in their water distribution systems through audits and infrastructure repairs; (3) partner with HUD and other federal agencies to encourage the installation of [WaterSense](#) fixtures in federal buildings and federally financed public housing; and, (4) expand water recycling and groundwater replenishment to increase resilience to the impacts of climate change. Region 9 will use the Strategy to drive transformational change in the way water is managed across the Pacific Southwest Region.

FY 2014 Performance Challenge

Tribal Water Systems

Tribal systems continue to face obstacles in achieving and maintaining managerial and financial capacity. Limited resources for direct implementation programs

restricts the Agency's ability to provide sufficient training and technical assistance for tribal utilities. EPA continues to work with our federal partners to target infrastructure assistance, conduct sanitary surveys at tribal systems to identify deficiencies, and fund circuit riders to work directly with tribal operators.

**STRATEGIC OBJECTIVE 2.2:
PROTECT AND RESTORE WATERSHEDS AND AQUATIC ECOSYSTEMS.**

Protect, restore, and sustain the quality of rivers, lakes, streams, and wetlands on a watershed basis, and sustainably manage and protect coastal and ocean resources and ecosystems.

This objective captures EPA’s efforts to protect and improve water quality in the nation’s watersheds as well as ocean, coastal, and estuarine waters. It includes all of the major activities EPA undertakes to implement the Clean Water Act—for example, updating water quality standards, implementing the National Pollutant Discharge Elimination System (NPDES) permit program, conducting monitoring and assessment, implementing practices to reduce pollution from agricultural and urban runoff (e.g., nonpoint sources), protecting wetlands and habitat, and developing total maximum daily loads (TMDLs) to reduce pollutants. These activities have contributed to the steady progress EPA is making to protect and restore the nation’s waters, despite challenges from population growth, aging infrastructure, and climate change.

Summary of Progress

EPA made significant progress in FY 2014 in protecting and restoring watersheds and aquatic ecosystems. A cumulative total of 3,866 waterbodies that were listed as impaired in 2002 were attaining water quality standards at the end of the year. EPA met its programmatic goals in FY 2014 by achieving its annual targets for sustaining a Clean Water State Revolving Fund utilization rate of over 97 percent, establishing or approving TMDLs, and maintaining 90 percent of non-tribal NPDES permits in current status. EPA and its partners also increased wetland acres restored and improved to a cumulative total of 221,000 acres.

EPA’s geographic programs largely achieved their end of year goals. Key accomplishments include completing management actions at three areas of concern in the Great Lakes for a cumulative total of seven (the target was five), restoring over 41,000 acres of estuarine wetlands in Puget Sound, and restoring or protecting over 93,000 acres of habitat in National Estuary Program (NEP) study areas (just short of the target of 100,000 acres).

**PUGET SOUND BASIN TREATY RIGHTS
AT RISK**

EPA Region 10’s Puget Sound Program (State of Washington) addressed several issues related to Treaty Rights at Risk. EPA directed \$2.8 million in 2014 funding and \$3.0 million planned in 2015 to kick-start coordinated investments for riparian buffer restoration and permanent protection. In addition, EPA directed \$1 million for culvert removal projects in the Puget Sound Basin and worked with federal and state partners to develop strategies to address fish passage barriers and reduce shoreline armoring. EPA, the National Oceanic and Atmospheric Administration, and the Natural Resources Conservation Service led the Puget Sound Federal Caucus in the early development of a coordinated investment strategy to accelerate the pace of salmon and shellfish recovery.

EPA also supported States and local water utilities in responding to the water related challenges posed by a changing climate. EPA deployed new tools to develop climate change adaptation plans on a watershed or estuary basis, to help water utilities improve preparedness for coastal and inland flooding, and to help local developers design stormwater practices that account for changing rainfall patterns. The National Water Program also released a final *Climate Change Adaptation Implementation Plan* (<http://www.epa.gov/climatechange/Downloads/OW-climate-change-adaptation-plan.pdf>).

EPA awarded Urban Waters Small Grants of \$40,000 to \$60,000 each to 37 organizations, providing approximately \$2.1 million to support projects helping communities in their efforts to access, improve, and benefit from their urban waters and the surrounding land. These local projects showcase how EPA is making a visible difference in underserved communities on the ground by helping to restore urban waters, improve water quality and support community revitalization and other local priorities.

FY 2014 Performance Accomplishments

FY 2014–2015 Agency Priority Goal

By September 30, 2015, 100 percent of the states will have updated nonpoint source management programs that comport with the new Section 319 grant guidelines. This will result in better targeting of resources through prioritization and increased coordination with the U.S. Department of Agriculture (USDA).

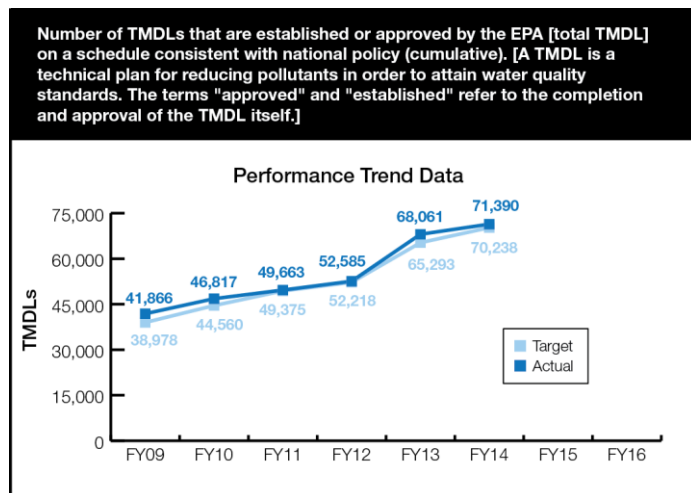
As of September 30, 2014, all of the states and Washington, D.C. are on track for meeting EPA’s priority goal to update their nonpoint source management programs by September 30, 2015. Six state programs were already up to date when EPA established this goal. Of the other 45 (counting Washington, D.C.):

- 84 percent of states and Washington, D.C. with outdated NPS management programs have either an EPA-approved management program or submitted a draft to the EPA for review.
 - Twenty-three now have EPA-approved programs.
 - Fifteen have submitted drafts to EPA for review.
- Seven have made progress and expect to provide draft updates to EPA by December 2014.

EPA and State Development of TDMLs

National policy is to complete TMDLs for Section 303(d)–listed, impaired waters within eight to 13 years of their date of initial listing, on average, and to complete all consent decree TMDL commitments.¹⁰ This measure tracks development of annual pace of TMDL completion in line with national policy on a state-by-state basis.

Although the results of this measure include state and EPA TMDLs, states developed all of the TMDLs in FY 2014. In particular, Florida developed



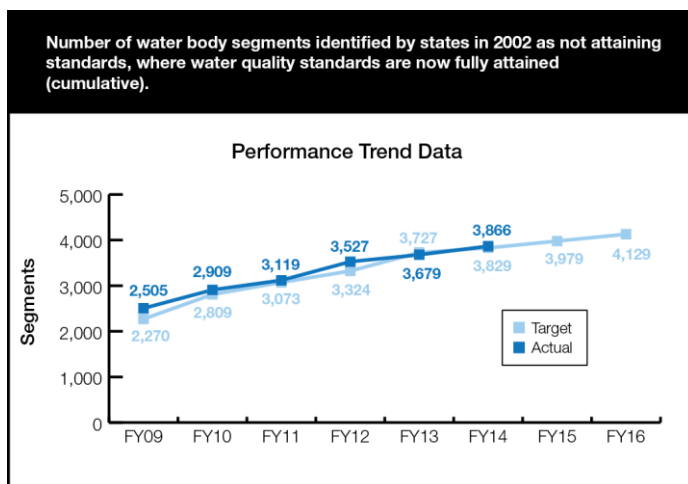
¹⁰ A TMDL is a technical plan for reducing pollutants in order to attain water quality standards. The terms “approved” and “established” refer to the completion and approval of the TMDL itself.

over 1,200 TMDLs; Montana continued to work hard to complete its consent decree requirements; and Utah, Wyoming, New York, and California exceeded their commitments. To date, EPA and states have developed 71,390 TMDLs, of which 62,539 were developed by states.

FY 2014 will be the last year that the Clean Water Act 303(d) Listing and TMDL Program reports on this measure; the Agency has engaged with states to implement a new 10-year vision for the program.¹¹ As part of this effort, EPA will continue to work with states to identify priority waters for assessment, development of TMDLs and other restoration plans for impaired segments, and pursuit of protection approaches for unimpaired waters. In FY 2015, the program will transition from reporting on the number of TMDLs developed to the number of priority areas where TMDLs, alternative restoration, or protection plans have been completed. Development of these new measures was driven by the desire of both EPA and the states to more accurately report on the success of the program in line with the new 303(d) vision.

Meeting Water Quality Standards

This measure is designed to demonstrate cumulative successes of the surface water program in achieving water quality standards in waters formerly assessed as not meeting water quality standards.



EPA exceeded its FY 2014 commitment for this measure. By attaining water quality standards, waters become safer for drinking, fishing, and swimming. EPA and state managers have given high attention and priority to this measure, contributing to its continued success. However, some challenges affect the ability of the states and EPA to sustain this level of progress: reduced state budgets are slowing the implementation activities needed to restore impaired waterbodies; it

is more difficult to address pollutants for a waterbody segment with multiple pollutants than for just one or a few impairing pollutants; and many of the remaining impairments will take years before the water segment is fully recovered.

Great Lakes Areas of Concern

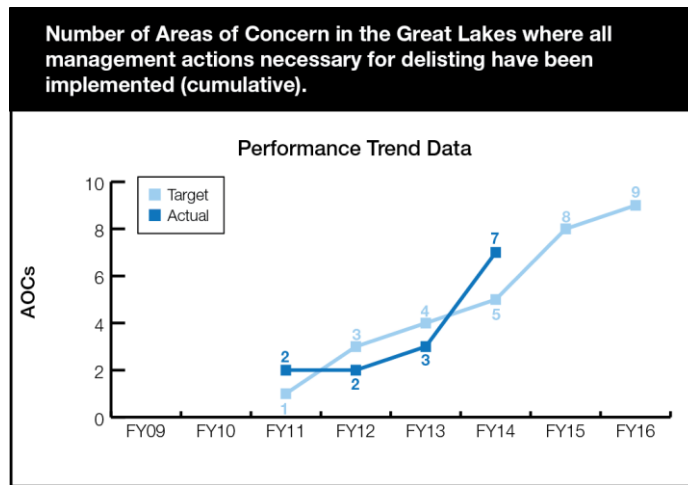
During the first five years of the Great Lakes Restoration Initiative (GLRI), federal agencies and their partners, led by EPA, completed all of the management actions required to remove five Areas of Concern (AOCs) from the list of areas designated as the most contaminated sites on the Great Lakes. Management actions were completed at four of those AOCs in FY 2014: Ashtabula River (Ohio), Deer Lake (Michigan), Waukegan Harbor (Illinois), and White Lake (Michigan). Since

¹¹ For more information, see:

http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/upload/vision_303d_program_dec_2013.pdf

then, the Deer Lake and White Lake AOCs have been formally delisted. (Delisting is an international process to remove an AOC from the list of AOCs in the Great Lakes Water Quality Agreement.)

After decades during which only one U.S. AOC was delisted, federal agencies have accelerated cleanup actions during the past five years by strategically targeting GLRI activities at management actions identified by state partners and removal of beneficial use impairments (BUIs). For delisting, the management actions must be completed and the BUIs (indicators of poor environmental health such as restrictions on fish and wildlife consumption, fish tumors, restrictions on dredging, and loss of habitat) at the AOC must first be restored. AOC restoration will ultimately be measured by the removal of all BUIs at the contaminated site.



In FY 2014, the cumulative BUI removal total was 52, exceeding targets in the Government Performance and Results Act and the GLRI Action Plans. EPA prioritized restoration of AOCs within the GLRI. Prioritization included:

- A focus of multi-agency activities and funding to advance the pace and amount of work performed at AOCs, including, but not limited to, remediation of contaminated sediments.
- Enhanced project management related to the planning, coordination, and implementation of remediation and restoration actions in AOCs.

Stormwater Calculator

EPA researchers developed the National Stormwater Calculator to provide decision-makers and others with an online tool to assess the impact of incorporating green infrastructure features, such as rain gardens, rain barrels, cisterns, and open parks, into their projects. The free tool is designed to be used by anyone interested in reducing runoff from a property, including site developers, landscape architects, urban planners, and homeowners. The calculator provides estimates of the annual amount and frequency of runoff from any location in the United States (including Puerto Rico), based on information collected about the selected site, such as local soil conditions, slope, land cover, and historical rainfall records. In 2014, as part of President Barack Obama's Climate Change Action Plan, EPA researchers enhanced the Calculator with climate assessment capabilities.

FY 2014 Performance Challenges

Nonpoint Source Nutrient Runoff

Nutrient runoff from nonpoint sources (e.g., agricultural lands and urban landscapes) is widespread. EPA must continue to work with state and federal partners to develop and implement effective solutions.

Nonpoint source pollution has been recognized as the largest remaining impediment to improving national water quality. Nutrient pollution is a national problem. National monitoring efforts, such as U.S. Geological Survey reports on surface water quality¹² and EPA's National Aquatic Resource Surveys,¹³ document the widespread impacts of nutrients on our nation's waters.

Nutrient pollution is one of the most widespread, costly, and challenging environmental problems. It contributes to hypoxic areas in the Great Lakes, Gulf of Mexico, Chesapeake Bay, and the Long Island Sound.¹⁴ It significantly affects drinking water supplies, aquatic life, and recreational water quality around the country, and these impacts occur in all categories of waters—rivers, streams, lakes, reservoirs, estuaries, and coastal areas.

Every U.S. state has nutrient-impaired waters, making it a national issue, for both surface water and groundwater. Over 15,000 waterways are listed for nutrient-related pollution (counting waters listed for nutrients specifically, as well as waters listed for organic enrichment and oxygen depletion or algal growth).¹⁵ Awareness is also growing of the impacts of nutrient enrichment on drinking water and source waters.

Population growth is expected to exacerbate the nutrients problem. EPA needs continued near-term action and demonstrable progress in reducing nutrients—while states continue to develop and adopt numeric criteria for nutrient pollution, so they have clear metrics to guide their efforts to protect and restore waters from nutrient pollution.

¹² [USGS Circular 1350: Nutrients in the Nation's Streams and Groundwater.](#)

¹³ [National Aquatic Resource Surveys](#)

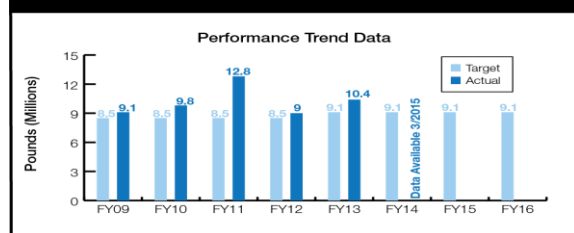
¹⁴ For trend data on Gulf of Mexico and Long Island Sound hypoxia, see <http://cfpub.epa.gov/roe/indicator.cfm?i=41>

¹⁵ http://iaspub.epa.gov/waters10/attains_nation_cy.control?p_report_type=T

PROTECTING WATER QUALITY WITH STORMWATER MANAGEMENT

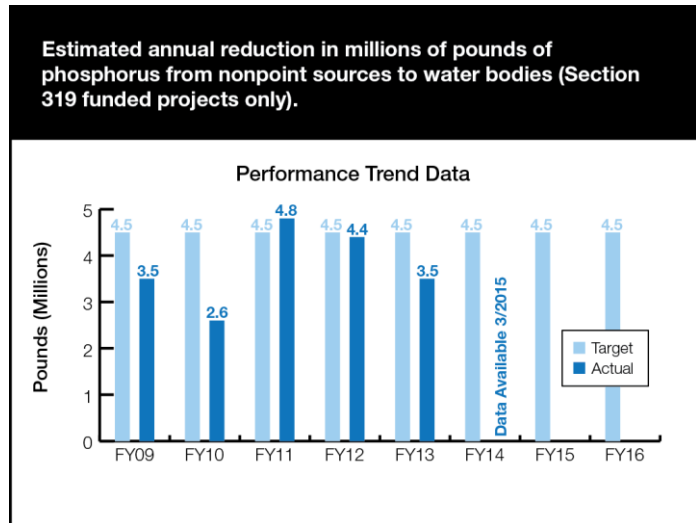
In response to Clean Water Act requirements and to protect water quality, [EPA released for public comment a draft general permit for small "Municipal Separate Storm Sewer Systems"](#) located in the Commonwealth of Massachusetts. To assist both first-time regulated municipalities and those already subject to stormwater regulations, EPA conducted outreach to help Massachusetts municipalities learn about the terms of the new draft permit, the use of green infrastructure and other sustainable best management practices for curbing stormwater pollutant discharges and runoff, and available financing options. When finalized, this permit will establish requirements for about 260 cities and towns and another 30 state- and/or federally-owned properties in Massachusetts to help develop, implement and enforce stormwater management programs thus reducing stormwater discharges across the state.

Estimated additional reduction in million pounds of nitrogen from nonpoint sources to water bodies (Section 319 funded projects only).



EPA is working diligently with its partners across the country to combat the nitrogen and phosphorus pollution problems, including protecting and restoring surface and ground waters already degraded by nutrient pollution through:

- Working with states to develop and implement nitrogen and phosphorus pollution reduction frameworks that address all sources of nutrient pollution to achieve near-term reductions in nitrogen and phosphorus pollution.
- Helping develop states' numeric nutrient standards.
- Providing example approaches to states for assessing whether waters are attaining nutrient-related narrative criteria and/or supporting designated uses.
- Providing funding:
 - Awarding grants to states for operating nonpoint source management programs.
 - For building and upgrading municipal wastewater facilities and implementing both nonpoint source pollution control and estuary protection projects.
- Coordinating with EPA-USDA:
 - Example: the National Water Quality Initiative, with landowners in 174 small watersheds across the country. The agencies coordinate in voluntary private land conservation investments and support state-led water quality monitoring.
- Committing to science:
 - Assessing national and regional progress using National Aquatic Resource Surveys.
 - Conducting and/or supporting research on topics related to nitrogen and phosphorus pollution.
 - Promoting innovation toward cost-effective and practical solutions.
- Broadening outreach to stakeholders and the public on nutrient pollution and related issues as well as on the effects of nutrient pollution on human health, the environment, and the economy.



Strategic Goal 3:

**CLEANING UP COMMUNITIES AND ADVANCING SUSTAINABLE
DEVELOPMENT**

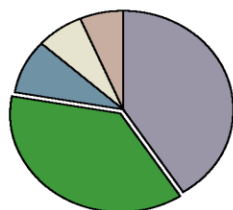
Goal 3 at a Glance

CLEANING UP COMMUNITIES AND ADVANCING SUSTAINABLE DEVELOPMENT

Clean up communities, advance sustainable development, and protect disproportionately impacted low-income and minority communities. Prevent releases of harmful substances and clean up and restore contaminated areas.

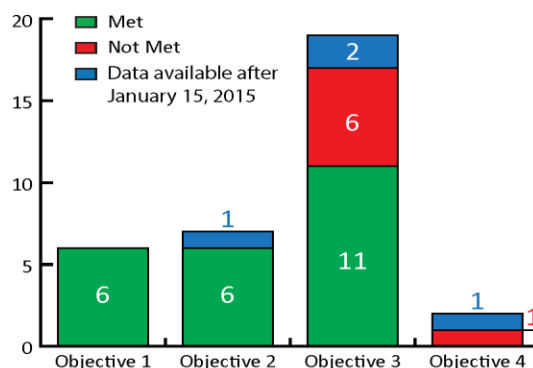
FY 2014 Performance Measures

Met: 23 Not Met: 7 Data Unavailable: 4
(Total Measures: 34)



- FY 2014 Obligations***
- Taking Action on Climate Change and Improving Air Quality, \$1,031,180.0
 - Protecting America's Waters, \$4,752,188.6
 - Cleaning Up Communities and Advancing Sustainable Development, \$4,297,969.8
 - Ensuring the Safety of Chemicals and Preventing Pollution, \$733,537.0
 - Enforcing Environmental Laws, \$793,179.0

FY 2014 Performance Measures



Strategic Objective Overview	FY 2014 Obligations*	% of Goal 3 Funds
Objective 3.1: Promote Sustainable and Livable Communities. EPA continued to make progress promoting sustainable communities by providing grants and technical assistance to communities under the Brownfields program and working with a variety of stakeholders to prevent accidents at chemical facilities.	\$507,897.8	12%
Objective 3.2: Preserve Land. EPA continued to make progress developing and implementing targeted SMM programs (responsible management of used electronics, sustainable food management, and reducing the environmental footprint of the federal government); issued the E-Manifest One-Year Rule; and engaged in rigorous UST release prevention efforts.	\$1,190,503.7	28%
Objective 3.3: Restore Land. EPA made progress toward its FY 2014 - 2015 Agency Priority Goal regarding efforts to prepare and respond to emergencies and clean up contaminated land; however, EPA faced challenges in the Superfund Remedial Program.	\$2,512,443.0	58%
Objective 3.4: Strengthen Human Health and Environmental Protection in Indian Country. EPA continues to build tribal capacity through the implementation of the GAP Guidance and EPA's Tribal Consultation Policy. By developing new GAP performance measures and scoping out characteristics of a needs assessment, the agency will be able to identify problems, prioritize issues, and address the gaps in environmental protection in Indian Country.	\$87,125.3	2%
Goal 3 Total	\$4,297,969.8	100%

*All figures in thousands

EPA CONTRIBUTING PROGRAMS

RCRA Waste Management
RCRA Corrective Action
RCRA Waste Minimization and Recycling
Superfund Emergency Preparedness
Superfund Remedial
Superfund Enforcement
Superfund Emergency Response and Removal
Environmental Response Laboratory Network
Federal Facilities Restoration and Reuse
Oil Spill Prevention Preparedness and Response
Leaking USTs
UST Prevention and Compliance
Homeland Security
Brownfields and Land Revitalization
Commission for Environmental Cooperation
Community Action for a Renewed Environment
Global Change Research
Homeland Security Research
Human Health and Ecosystem Protection Research
Human Health Risk Assessment
National Environmental Monitoring Initiative
Smart Growth
Research Fellowships
State and Local Prevention and Preparedness
U.S.–Mexico Border
Sector Grant Program
State and Tribal Pollution Prevention Grants
Tribal Capacity-Building
Tribal General Assistance Program
Risk Management Program

**STRATEGIC OBJECTIVE 1:
PROMOTE SUSTAINABLE AND LIVABLE COMMUNITIES.**

Support sustainable, resilient, and livable communities by working with local, state, tribal, and federal partners to promote smart growth, emergency preparedness and recovery planning, redevelopment and reuse of contaminated and formerly contaminated sites, and the equitable distribution of environmental benefits.

Since its inception in 1995, EPA’s Brownfields Program has grown into a proven, results-oriented program that has changed the way contaminated property is perceived, addressed, and managed. It is designed to empower states, communities, and other stakeholders in economic redevelopment to work together in a timely manner to prevent, assess, safely clean up, and sustainably reuse brownfields; this supports the Agency’s cross-agency strategy for “Working to Make a Visible Difference in Communities.”

A brownfield is a property whose expansion, redevelopment, or reuse may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. It is estimated that there are more than 450,000 brownfields in the United States. Cleaning up and reinvesting in these properties increases local tax bases, facilitates job growth, puts existing infrastructure to use, takes development pressures off undeveloped open land, and both improves and protects the environment.

Also as part of this objective, EPA promotes accident prevention and preparedness activity under Section 112(r) of the Clean Air Act Amendments by publishing regulations and guidance for chemical accident prevention at facilities that use extremely hazardous substances. These regulations and guidance are contained in the Risk Management Plan (RMP) rule. The information required from facilities under RMP helps local fire, police, and emergency response personnel prepare for and respond to chemical facility emergencies and fosters communication and awareness to improve accident prevention and emergency response practices at the local level. The RMP rule was built upon existing industry codes and standards. It requires companies that use certain flammable and toxic substance to develop RMPs in order to assess risks, improve operations, and prepare response plans.

Summary of Progress

Throughout 2014, EPA continued to make progress toward the strategic targets in its *FY 2014–2018 Strategic Plan* for the Brownfields and Risk Management Programs. Specifically, in FY 2014, the Agency continued funding for brownfields cleanup activities by providing grants and technical assistance to communities, states, and tribes for the assessment, cleanup, and redevelopment of formerly contaminated properties, as well as leveraging thousands of jobs. To date, Brownfields funding has resulted in 22,336 brownfields properties assessed, 102,740 jobs leveraged, and more than 47,000 acres made ready for anticipated reuse. EPA worked closely with both existing and new Brownfields Area-Wide Planning (AWP) grantees across the country to help them involve the community, prepare their plans, and leverage investments toward site cleanup and reuse. The initial 23 Brownfields AWP pilots have leveraged over \$400 million in federal, state, and private investments.

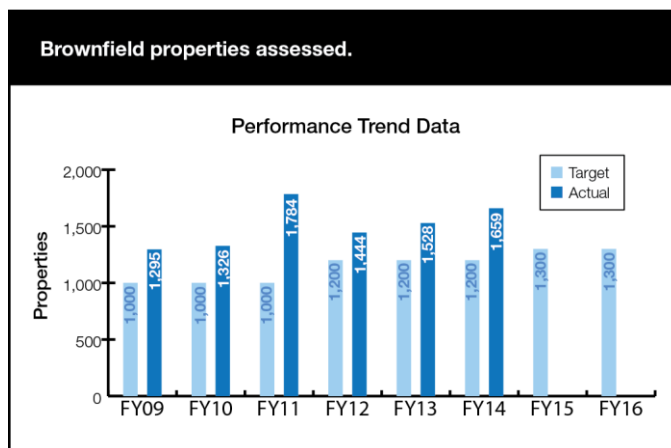
In addition to the environmental and health benefits of Brownfields cleanups, remediation has also been shown to have a positive economic impact within communities. A [2012 assessment](#) by the National Bureau of Economic Research¹⁶ of the economic impact of brownfields remediation demonstrated that homes within one kilometer of a brownfield site that has been cleaned up using brownfields funding might experience a 5.8 to 12.3 percent increase in residential property values.

In addition to the brownfields activities, EPA promoted sustainable communities through its efforts to prevent chemical accidents. In FY 2014, EPA continued to achieve its risk management plan inspections target to prevent chemical releases at facilities in communities and took critical steps implementing Executive Order 13650, “[Improving Chemical Facility Safety and Security](#),” bringing together federal regulatory representatives and stakeholders with a vested interest in reducing the risks associated with handling and storage of chemicals at stationary facilities within our communities. In May 2014, a multi-agency working group led by EPA, the Occupational Safety and Health Administration (OSHA), and the Department of Homeland Security (DHS) released the final report to the President highlighting progress and providing a plan to support and enable efforts by states, tribes, and local communities to improve chemical facility safety. Furthermore, [EPA’s Region 2](#) developed standard operating procedures for a unified federal, state, and local approach for identifying and responding to risks at chemical facilities and a plan to improve operational coordination. These procedures are now being used as a model for other EPA Regions across the nation. EPA also published a request for information on the risk management program in July 2014, describing 19 potential modifications to help streamline the program and improve safety requirements, requesting stakeholder feedback.

FY 2014 Performance Accomplishments

Brownfield Properties Assessed

In FY 2014, brownfields funding resulted in the assessment of 1,659 brownfields properties for environmental contamination, exceeding the target by 38 percent. EPA is on track to meet the strategic measure established in the *FY 2014–2018 Strategic Plan*: by 2018, conduct environmental assessments at 26,350 (cumulative) brownfield properties. Since FY 2012, the target for this measure has increased; still, the program continues



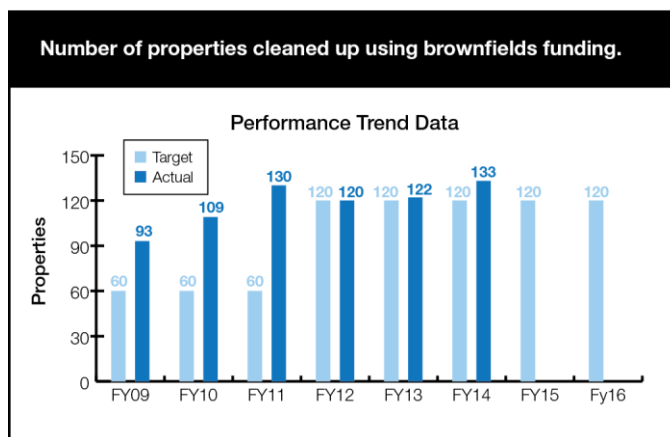
to consistently outpace EPA’s targets. Since the Brownfields Program awards more community-wide than site-specific assessment grants and the assessments are completed over the three-year period of the grant, the number of properties assessed varies each fiscal year.

¹⁶ Haninger, Kevin, Lala Ma, and Christopher Timmins. 2014. “The Value of Brownfield Remediation.” NBER Working Paper 20296. <http://www.nber.org/papers/w20296>.

As of the end of FY 2014, EPA assessed 22,336 brownfields properties. Phase I funding for property assessments helps communities examine historical records to identify properties likely to be contaminated based on past uses, and indicates the need for additional environmental work, such as a Phase II assessment to characterize suspected contamination. This measure represents an important milestone in the overall cleanup process and can lead to a reuse/redevelopment outcome that would leverage local development sources to drive employment and enhance the livability of the community containing the property. Equally important, assessments can indicate that brownfield sites may not be contaminated and can therefore be safely reused without cleanup.

Brownfield Properties Cleaned Up

A fundamental purpose of EPA’s Brownfields Program is to provide funding and resources to clean up properties with contamination that pose health or environmental risks, impeding property reuse and economic redevelopment. EPA’s Brownfields Program provides communities with grants to help fund the cleanup of contaminated sites.



In FY 2014, EPA completed 132 brownfields cleanups, an increase of 10 cleanups from FY 2013; this puts EPA on track to meet the strategic target established for the following measure in the *FY 2014–2018 Strategic Plan*: by 2018, make an additional 16,800 acres of brownfield properties ready for reuse from the 2012 baseline. Since FY 2009, the Brownfields Program has averaged 118 cleanups per year and has funded 705 completed cleanups. There has also been an increased effort to ensure that grant recipients actively report cleanup activities and progress in ACRES (EPA’s brownfields database).

PUBLIC, PRIVATE, AND INTERGOVERNMENTAL ROUNDTABLE: REVITALIZING FOUR OHIO RIVER COMMUNITIES

Region 3 facilitated a Manufacturing Community Roundtable in Beaver County, PA, focusing on public-private and intergovernmental partnerships to revitalize four communities along the Ohio River: Monaca, Midland, Alquippa, and Coraopolis. As part of the White House initiative to promote manufacturing, the Roundtable addressed brownfields reuse, infrastructure, workforce development, job training, job creation, and riverfront and community revitalization.

Developing Interactive Tools for the Public

In May 2014, EPA released [EnviroAtlas](#), a multi-scale (national to community), Web-based, interactive mapping, visualization, and analysis tool that provides the first-ever picture of the distribution of ecosystem services for the mainland United States. EnviroAtlas integrates over 300 separate data layers developed through collaboration between EPA; the U.S. Geological Survey; the U.S. Forest Service; other federal, state, and nonprofit organizations; and several universities. The tool was designed to help decision-makers understand the implications of planning and policy decisions on our fragile ecosystems and the communities who depend on goods and services from these ecosystems.

Users can investigate land cover patterns, see how ecosystem services reduce pollution, and view closer to true scale data to compare them across selected communities. EnviroAtlas helps communities better understand the potential benefits and drawbacks of their decisions by providing tools to analyze relationships between nature, health and well-being, and the economy.

Performance Challenges

Implementation of Executive Order on Improving Chemical Facility Safety and Security

Implementing activities related to the “[Improving Chemical Facility Safety and Security](#)” Executive Order includes addressing the capacity and resources for state, tribal, and local preparedness organizations. Assisting these organizations with chemical incident preparedness involves addressing thousands of facilities of many types with hundreds of different chemicals. These facilities are often located in communities where funding is scarce and organizational structure of local emergency management organizations is often in a state of flux. EPA will focus on leveraging these resources by working with State Emergency Response Commissions and Tribal Emergency Response Commissions to develop online training on key requirements under the Emergency Planning and Community Right-to-Know Act. EPA will also develop guidance and training for Local Emergency Planning Committees and Tribal Emergency Planning Committees to reinforce their authorities, roles, and responsibilities and identify barriers to meet their requirements for development and implementation of local emergency response plans.

CHEMICAL FACILITY SAFETY OUTREACH

Region 7 conducted extensive chemical facility safety outreach in FY14, reaching thousands of agricultural community members and emergency responders. These efforts included:

- Posting a video on [Region 7's Facebook page](#) on the need to enhance communications between emergency responders and owners/operators of hazardous chemical storage facilities.
- Partnering with the Missouri Emergency Response Commission, OSHA, and DHS to conduct workshops on safely handling ammonium nitrate and other potentially hazardous agricultural chemicals.
- Designing and presenting two-day long webinars on the Chemical Accident Prevention Provisions (also known as the Risk Management Program).
- Partnering with the Fertilizer Institute and other non-profit organizations to help agricultural retailers with their risk management plans, required under the chemical accident provisions of the Clean Air Act.
- Addressed participants at the 2014 Kansas Local Emergency Planning Committee Conference on the requirements of Executive Order 13650, Improving Chemical Facility Safety and Security, and building capacity for increasing chemical facility safety locally.
- Conducted information sessions with eight state Emergency Response Commissions and 24 Local Emergency Planning Commissions on potential changes in chemical facility safety regulations and requirements.

STRATEGIC OBJECTIVE 2:

PRESERVE LAND.

Conserve resources and prevent land contamination by reducing waste generation and toxicity, promoting proper management of waste and petroleum products, and increasing sustainable materials management.

Preventing contamination and preserving critical resources is vital to creating healthy and vibrant communities and ecosystems. EPA, in partnership with states, currently oversees and manages a variety of programs that manage hazardous waste, prevent potentially dangerous releases, and promote approaches to change the way our society protects the environment and conserves our resources for future generations in a sustainable manner. These efforts support the Agency's cross-agency strategy for "[Working Toward a Sustainable Future](#)."

Summary of Progress

The long-term vision of this objective is to prevent accidental releases that contaminate land, air, and water and can adversely affect human health, and to change the way our society thinks about materials and their associated environmental impacts. Through a Sustainable Materials Management (SMM) approach, EPA is helping to change the way our society protects the environment and conserves resources for future generations. Building on the familiar "Reduce, Reuse, Recycle," concept, SMM aims to reduce negative environmental impacts across the life cycle of materials, from resource extraction and manufacturing to use, reuse, recycling, and disposal. SMM approaches can result in lower energy use; more efficient use of materials; more efficient movement of goods and services; water conservation; and reduced volume and toxicity of waste. While EPA is striving for SMM, EPA works to ensure that when materials reach the true end of life, they are disposed of properly and safely.

In FY 2014, EPA continued to make progress toward the strategic goals that advance this vision. Specifically, EPA continued to make significant progress developing and implementing a targeted SMM program centered on three challenge areas: responsible management of used electronics, sustainable food management, and reducing the environmental footprint of the federal government. Furthermore, the Agency completed a methodology to evaluate the potential uses of coal combustion residues (CCR), commonly known as coal ash, and applied this methodology to the two most common beneficial uses of CCRs—uses in concrete and wallboard. Reusing coal ash in a product replaces virgin raw materials removed from the earth, thus conserving natural resources. Not only were these products useful to ensure that reuse of CCRs is appropriate but they can be valuable tools for EPA, states, and other stakeholders in evaluating future beneficial uses of industrial materials moving the science and practice of beneficial use forward.

In FY 2014, EPA also issued the E-Manifest One-Year Rule to authorize the use of electronic hazardous waste manifests. This allows the current process (which requires paper forms) to be streamlined, greatly reducing the millions of paper manifests produced each year. EPA also completed an Agency-wide plan to provide solid waste management capacity assistance to Tribes that promotes the development and implementation of integrated waste management plans and describes how EPA will prioritize its resources to maximize environmental benefits. The Plan

implements the recommendations made by a March 2011 EPA Office of Inspector General Evaluation Report, [EPA Needs an Agency-Wide Plan to Provide Tribal Solid Waste Management Capacity Assistance](#).

Finally, given that preventing underground storage tank (UST) releases is the best way to ensure that our communities are clean and safe, and also prevent sites from being abandoned, the Agency also engaged in rigorous UST release prevention efforts—as shown by the 2014 performance results for the two UST prevention measures. States have successfully implemented the new tools from the Energy Policy Act of 2005: requiring all new tank systems have secondary containment; using the new delivery prohibition enforcement tool; providing an annual “public record” for their tanks programs; and ensuring all operators are trained. Since the increase in frequency of tank inspections, compliance rates have increased to 71.6 percent—a 5.6 percent increase since FY 2009—and the number of new releases is generally trending downward.

FY 2014 Performance Accomplishments

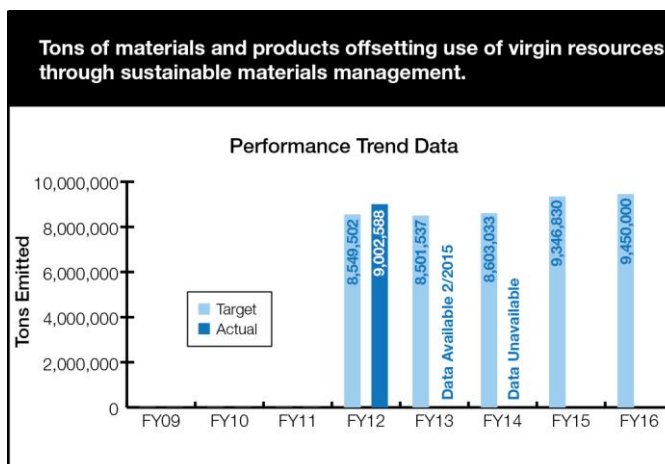
Use of Virgin Resources Offset Through SMM

EPA continues to make significant progress developing and implementing a targeted [SMM](#) program centered on the three challenge areas. Achievements in FY 2014 include preventing food waste through the Food Recovery Challenge, with participants diverting 375,000 tons of food from landfills; diverting more than 220,000 metric tons of end-of-life electronics through EPA’s Electronics Challenge; and reducing the environmental footprint of more than 400 federal facilities through the Federal Green Challenge by diverting 523,000 tons of waste from landfills, saving taxpayers an estimated \$42 million.

These efforts support the associated strategic measure: by 2018, increase by 500,000 tons the amount of virgin materials that were offset by the reuse or recycling of waste products through the use of SMM.

EPA WELCOMES NCAA FINAL FOUR AND SUSTAINABILITY TO TEXAS

EPA organized Educational Outreach and Food Recovery for the National Collegiate Athletic Association (NCAA) Final Four in Texas. During the events, EPA worked with two nonprofit organizations—Rock and Wrap It Up! and Food Source DFW—to facilitate food recovery at AT&T Stadium and the Kay Bailey Hutchison Convention Center. The partnership resulted in 2,800 pounds of leftover food delivered to homeless shelters. As a result, the Kay Bailey Hutchison Convention Center has established a program to provide leftover edible food from catered events to the nearby Dallas Life Shelter and has enrolled in the Food Recovery Challenge. Reducing, recovering, and recycling food at sporting events decreases environmental impacts by reducing the waste generated by large-scale food disposal and saving the energy required to dispose of that food.



In FY 2014, EPA reported the actual FY 2012 results—over 9.0 million tons of virgin materials offset. Given this success from the first round of reporting, EPA increased FY 2015 and FY 2016 targets to 9.347 million and 9.450 million tons respectively. The results for FY 2013 will be available in the spring of FY 2015; EPA anticipates exceeding the existing target of 8.5 million tons.

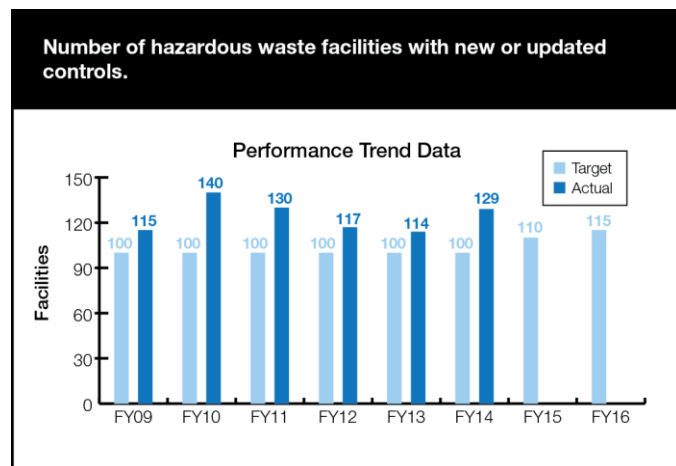
More Hazardous Waste Facilities with New or Updated Controls

The Resource Conservation and Recovery Act (RCRA) permitting program is a core programmatic effort for protecting human health and the environment in communities that host RCRA facilities, and for ensuring compliance with waste management standards consistent with the proper handling and disposal of hazardous wastes. Preventing releases from RCRA facilities by issuing and maintaining permits also provides cost savings, as a

**PACIFIC SOUTHWEST
FEDERAL GREEN CHALLENGE**

EPA’s Pacific Southwest Region recruited and retained 63 Federal Green Challenge participants. The Green Challenge program encourages and recognizes participants for outstanding efforts in conservation and resource recovery in the target areas of waste, electronics, purchasing, water, energy, and transportation. Collectively, the area participants:

- Conserved 1.65 billion cubic feet of natural gas.
- Diverted 53,000 tons of materials from landfills to reduce greenhouse gas equivalents by 169,505 metric tons of carbon equivalent—equal to conserving 6.43 million gallons of gasoline.
- Purchased over 24 million sheets of 100% recycled paper to conserve over 1,800 40-foot trees.
- Saved \$15.2 million in reduced waste disposal and utility costs.



typical RCRA corrective action to address a release into the environment from mismanaged wastes can easily cost \$100,000 or more. EPA measures program progress by reporting the number of RCRA hazardous waste facilities with new or updated controls completed each fiscal year, as seen in the graph below. This annual measure contributes to the long-term goal of 500 additional facilities described in the Agency’s *FY 2014–2018 Strategic Plan*. In FY 2014, EPA completed 129 accomplishments, surpassing the target by 20 percent. Since

FY 2009, due to EPA’s work, 745 facilities received new or updated controls.

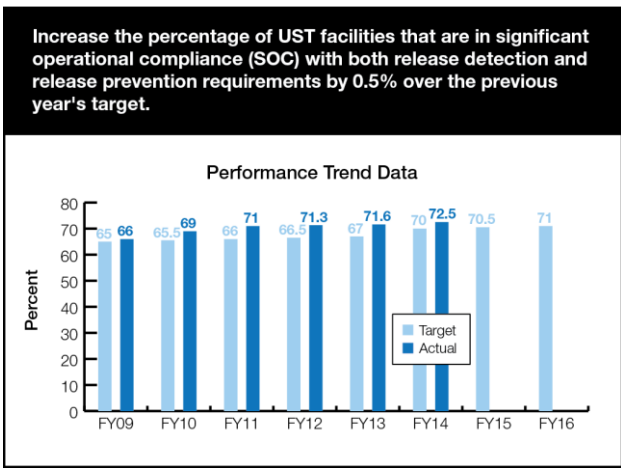
To prevent future environmental contamination and to protect the health of the estimated 20 million people living within a mile of a hazardous waste management facility,¹⁷ EPA and its partners issue, update, or maintain RCRA permits for approximately 20,000 hazardous waste units.

¹⁷ Estimate drawn from the Office of Solid Waste and Emergency Response’s Near Site Population Database, an internal EPA database that merges facility size and location information from RCRAInfo with population data, at the block and block group levels, from the U.S. Census Bureau’s 2000 Census. The demographics were captured around

More UST Facilities in Compliance

In FY 2014, EPA increased to 72.5 percent the number of UST facilities that were in significant operational compliance, exceeding its goal of 70 percent. Since the enactment of the Energy Policy Act and the implementation of the requirement that USTs be inspected at least once every three years, EPA continues to see a steady increase in the number of UST facilities that comply with leak prevention and detection requirements. Since FY 2009, compliance rates have increased by 6.5 percent; the backlog of sites needing to be cleaned up is the lowest since 1990. The collaboration

between EPA and states and tribes contributes to this success and supports the Agency's [*A New Era of State, Local, Tribal, and International Partnerships*](#) cross-agency strategy.



Performance Challenge

As noted in the accomplishment above, states report significant improvement in both compliance and release reduction since they began inspecting every tank at least once every three years. However, states have raised concerns that there might not be sufficient resources to enable them to meet the Energy Policy Act mandate to inspect tanks at least once every three years. In recent years, several states have been unable to maintain the three-year inspection rate, and in FY 2015 more are falling behind due to funding shortfalls.

the total number of facilities that have approved controls in place that result in the protection of this population (20 million people).

**STRATEGIC OBJECTIVE 3:
RESTORE LAND.**

Prepare for, respond to accidental or intentional releases of contaminants, clean up, and restore polluted sites for reuse.

These programs reduce risks to human health and the environment by assessing contaminated sites, cleaning them up, and returning them to the community for economic or recreational use. In addition, EPA's Emergency Response and Removal program deploys resources to contain and respond to emergencies and stabilize hundreds of sites across the country per year. EPA's land cleanup programs track over 540,000 sites that cover slightly more than 23 million acres—slightly over 17 percent of all developed land in the United States.

Summary of Progress

Contaminated land can threaten human health and the environment, and potentially hamper economic growth and the vitality of local communities. Academic research has demonstrated that investment in Superfund cleanups reduces the incidence of congenital abnormalities by roughly 20–25 percent for those living within 2,000 meters (1.2 miles) of a site.¹⁸ The long-term vision of this objective is to prepare and respond to emergencies and to clean up contaminated land so it can be safely reused or continue to be used, creating more resilient, healthy, and vibrant communities. EPA's land cleanup programs track over 541,000 sites and almost 23 million acres, many of which are located in economically distressed communities that suffer from disproportionate and adverse environmental exposures. Approximately 125 million people live within 3 miles of a Superfund or a RCRA Corrective Action site. Analyzing census data, EPA found that the population within three miles of these sites is more likely to be minority, low income, and linguistically isolated, and less likely to have a high school education than the U.S. population as a whole.¹⁹ EPA and its partners have made over 453,000 contaminated sites Ready for Anticipated Use (RAU). Making sites RAU is one of the Agency's FY 2014–2015 priority goal. Once a property is remediated and redeveloped, the reuse or continued use,

COLORADO FLOOD RECOVERY

Immediately following the September 2013 Colorado flood, Region 8's first task was to address the hazardous materials releases. Response crews recovered 35 cars, 329 propane tanks, 259 refrigerators and freezers, 47 batteries, 198 drums, more than 9,000 containers, and many other items. Region 8 also stabilized and rebuilt the eroded slope of the tailings pile underlying Elysian Park, removed stream debris, and stabilized the stream channel through the town of Jamestown. A second cleanup site required Region 8 to stabilize and restore creek banks, saving Jamestown from being inundated by an estimated 25,000 cubic yards of mine remnants. Region 8's repair of these old cleanup sites and its response to the dangerous flooding provided critical support that the counties needed to recover from the storm.

¹⁸ Currie, Janet, Michael Greenstone, and Enrico Moretti 2012. "Superfund Cleanups and Infant Health." *American Economic Review*, 101 (3):435–441.

¹⁹ U.S. EPA, Office of Solid Waste and Emergency Response Estimate. 2014. Data collected include: (1) site information as of the end of FY 2011 from CERCLIS and RCRAInfo; and (2) census data from 2007–2011 American Community Survey.

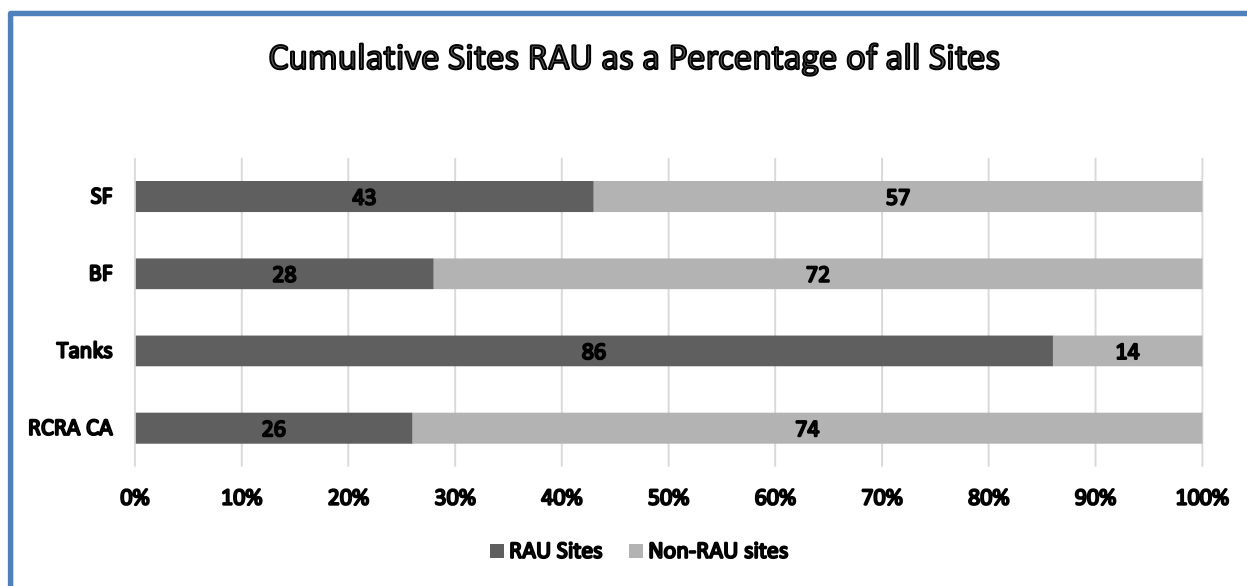
may result in new income to the community in the form of taxes, jobs to local residents or provides recreational or other services to make the community a better place to live. A study found that property values within three miles of sites where Superfund cleanups were completed increased approximately 20 percent.²⁰

Overall in FY 2014, EPA achieved 14 of the 20 measures in this objective, with significant challenges for the Superfund program measures. The various reasons for missing the targets are described below. EPA expects continued challenges for the Superfund Remedial Program in the next few years and will continue to implement the Superfund Program Review, leverage special accounts, and pursue other strategies to drive performance.

FY 2014 Performance Accomplishments

FY 2014–2015 Agency Priority Goal

Clean up contaminated sites to enhance the livability and economic vitality of communities. By 2015, an additional 18,970 sites will be made ready for anticipated use protecting Americans and the environment one community at a time.



In FY 2014, 11,161 sites were made RAU, exceeding the FY 2014 interim milestone of 9,685 sites. To meet the overall priority goal of 18,970 sites RAU for the two-year time period, EPA will need to report 7,808 sites in 2015, which is less than the FY 2015 target of 9,285. EPA’s Superfund, RCRA corrective action, leaking UST, and Brownfields cleanup programs all contribute to this priority goal. This measure is met when the responsible local, state, or federal agency determines that cleanup goals and engineering and institutional controls have been implemented for the media that affects current and reasonably anticipated future use and human exposure is under control. It is an internal performance measure, not an indicator of site-specific risk. The RAU measure is

²⁰ Gamper-Rabidron, Shanti, and Christopher Timmins. 2012. “Does the Cleanup of Hazardous Sites Raise Housing Values? Evidence of Spatially Localized Benefits.” Duke Environmental Economics, Working Paper EE1203.

based on the information available when the determination is made, and may change if the site’s conditions change or if more is discovered about the contamination or conditions at the site. Although each program establishes its own targets, the collective nature and combined overall target of the RAU priority goal offers an opportunity for EPA cleanup programs to work together to identify lessons learned, efficiencies, and opportunities to advance site cleanup.

Independent research indicates that cleaning up land so that it can be put to productive use provides many benefits to the community, including reduced morbidity and mortality risks, preservation of land, and increased property values.^{21,22,23} At the end of FY 2014, there were 453,018 sites that were made RAU.

FY 2014 Performance Challenges

Superfund Remedial Program

The EPA’s Superfund Remedial program protects the American public and the nation’s resources by assessing and cleaning up some of the most contaminated sites in the United States. These actions protect and restore the nation’s precious and limited groundwater and surface water resources. In addition, some construction activities help to build, replace, or sustain critical components of the nation’s infrastructure (i.e., water, transportation, and recreation). The human

health benefits of remediating contaminated sites include reduced mortality and reduced morbidity risk from asthma, cancer, birth defects, adverse reproductive or developmental disorders, and other illnesses or injuries. For example, elevated blood-lead levels can result in irreversible neurological deficits in young children (including lowered intelligence, attention-related behavioral problems, and poor academic achievement). In 1997, blood lead levels of children in Ottawa County and Tar

LOWER PASSAIC RIVER CLEANUP

In April 2014, Region 2 announced the highest dollar volume plan proposed in Superfund history – the cleanup of the lower Passaic River in New Jersey. The Passaic, often described as one of the most polluted water bodies in the nation, is the victim of a century of industrialization and development. Its sediments are severely contaminated with dioxins, polychlorinated biphenyls, mercury, lead and other metals, as well as pesticides and other harmful chemicals.

Members of Congress and the acting mayor of Newark joined EPA Regional Administrator Judith Enck in announcing the removal of nearly 4.3 million cubic yards of tainted sediment and the capping of another 5.4 million cubic yards of sediment at an estimated cost of more than \$1.7 billion.

Number of Superfund sites ready for anticipated use site-wide.



²¹ Howland, Marie. 2007. “Employment Effects of Brownfields Redevelopment, What Do We Know from the Literature?” *Journal of Planning Literature*, 22:91–107.

²² Currie, Janet, Michael Greenstone, and Enrico Moretti 2012. “Superfund Cleanups and Infant Health.” *American Economic Review*, 101 (3):435-441.

²³ Gamper-Rabidron, Shanti, and Christopher Timmins. 2012. “Does the Cleanup of Hazardous Sites Raise Housing Values? Evidence of Spatially Localized Benefits.” Duke Environmental Economics, Working Paper EE1203.

Creek, Oklahoma, were estimated to be 21.5 percent and 12.61 respectively. Following Superfund cleanup and education activities, 0 percent of children in these areas were showing elevated levels by 2013. Site cleanup can also be a significant economic driver. For 450 sites with available data, those sites now have approximately 3,470 operating businesses that generate annual sales over \$65.1 billion and employ over 89,000 people, who earn a combined income of \$6.0 billion.²⁴

The Superfund Remedial program reports its activities and progress toward long-term human health and environmental protection via six performance measures that encompass the entire cleanup process. In FY 2014, the Superfund Remedial Program missed its national targets for four of its measures: Net number of sites with human exposures under control (achieved nine of its target of 10); number of sites with remedy construction completed (achieved eight of its target of 15); net number of sites with contaminated groundwater migration under control (achieved 11 of its target of 15); and net number of sites ready for anticipated use site-wide (site-wide RAU) (achieved 45 of its target of 55). In FY 2015, the program is reducing its targets for all four of these measures.

There are various factors contributing to missing the FY 2014 targets. The discovery of new exposure pathways during cleanup efforts (such as, vapor intrusion) moved sites to “Not Under Control” and posed challenges for site completion. The implementation of updated cleanup standards and/or improvements in sampling techniques increased the number of sites with unacceptable exposure pathways. Many of the remaining sites are large, complex, and technically challenging and require many years to bring them “Under Control” and achieve Construction Completion and Site-wide RAU. Finally, resource constraints have slowed some construction projects and prevented initiation of other projects impacting both the Construction Completion and Site-wide RAU measures.

The Superfund Remedial Program has undertaken a [comprehensive review of its operations](#) to identify ways to continue effectively protecting human health and the environment in the face of diminishing resources. The Remedial Program will continue to implement the technical and program management improvements recommended in this review so they are incorporated into the normal business practices of the program.

²⁴ For more information on Redevelopment Economics and in depth case studies please use the link below. <http://www.epa.gov/superfund/programs/recycle/economicimpacts.html>.

STRATEGIC OBJECTIVE 4:

STRENGTHEN HUMAN HEALTH AND ENVIRONMENTAL PROTECTION IN INDIAN COUNTRY.

Support federally recognized tribes to build environmental management capacity, assess environmental conditions and measure results, and implement environmental programs in Indian Country.

Under federal environmental statutes, EPA is responsible for protecting human health and the environment in Indian Country. The relationship between the U.S. government and federally recognized tribes is unique: we work closely with tribes on a government-to-government basis to ensure that environmental protection is being achieved across the country and that we work in true partnership with tribal leaders to fulfill our mission. [EPA's 1984 Indian Policy](#) provides the framework for EPA's relationship with federally recognized tribes and identifies the mechanisms EPA and tribes use to implement federal environmental laws in Indian Country. Building on the long-standing Indian Policy principles, EPA carries out the work under this objective through the implementation of federal environmental programs in Indian Country, building tribal capacity through the Indian Environmental General Assistance Program (GAP), and considers tribal interests in carrying out its programs through its [Policy on Consultation and Coordination with Indian Tribes](#).

Summary of Progress

The EPA, in consultation with the Office of Management and Budget, has highlighted this objective as a focus area for improvement. Overall, progress is being made in discrete areas to protect human health and the environment in Indian Country; however, we continue to face internal and external challenges to protecting environmental and human health on tribal lands. For example, many tribal environmental departments lack capacity to regulate pollution, are often understaffed, and face unique jurisdictional and institutional challenges. Although core tribal capacities are being maintained (i.e., environmental presence), needs in Indian Country continue to grow in number and diversity. The majority of tribes are not implementing EPA-authorized regulatory programs and EPA's ability to fully implement programs on behalf of tribes remains a challenge.

EPA's national tribal programs and regional offices report insufficient staff resources for EPA to conduct the type of environmental technical assistance, oversight, and program implementation likely needed in Indian Country. There is general recognition that tribal governments' requests for grant dollars to implement programs far exceed the resources available.

In FY 2014, after internal discussions about the challenges associated with this objective, EPA determined that it should conduct a comprehensive needs assessment to better understand the scope and breadth of EPA's work in Indian country. Upon completion of such an assessment, EPA can determine resource needs to ensure compliance and environmental protection in Indian country. Such an assessment is a multi-year effort, requiring cross-agency participation. In FY 2015, EPA will develop some foundational information to inform what resources and level of effort will be needed to conduct such an assessment. Examples of information being developed include

identifying the scope of database changes that would be needed to fully integrate Indian country into key environmental data systems managed by EPA; and developing national guidelines for EPA's regulatory responsibilities in Indian country.

FY 2014 Performance Accomplishments

Tribal Capacity Building

EPA provides resources through grant funds and technical assistance for federally recognized tribes to create and maintain effective environmental program capacity. In FY 2014, EPA began to implement the revised [Indian General Assistance Program "Guidance on the Award and Management of General Assistance Agreements for Tribes and Intertribal Consortia"](#) (GAP Guidance), which will strengthen tribal capacity building in FY 2015 and beyond.

Much of EPA's tribal programs work in FY 2014 focused on partnering with tribes to develop joint EPA-Tribal Environmental Plans (ETEPs) to reflect intermediate and long-term goals for planning, developing, establishing, and implementing environmental protection programs. Approved GAP work plans will contain capacity indicators that relate to goals identified in the ETEPs. The ETEPs help tribes and EPA identify mutual roles and responsibilities for addressing particular environmental priorities and issues, focusing on joint planning and priority-setting, increasing flexibility to direct resources to the most pressing environmental problems and measuring results. Long-term plans also provide a foundation for the shorter-term work plans for the Tribal GAP grants. In FY 2014, 39 tribes had developed ETEPs with EPA regional offices.

Tribal Consultation

In FY 2014, EPA continued to focus on implementation of its [Consultation and Coordination Policy with Indian Tribes](#). Consultation is a process of meaningful communication and coordination between EPA and tribal officials prior to EPA taking actions or implementing decisions that may affect tribes. EPA's Tribal Consultation Policy has provided nationally consistent guidance for when consultation should be considered and an overall consistent process for early and meaningful tribal consultation.

In FY 2014, EPA completed 65 tribal consultations and initiated the tribal consultation process for 53 actions. Since 2011, the EPA has consulted with tribes on 245 actions. The majority of these actions pertain to EPA regulations and guidances (30 percent and 32 percent of consultation actions respectively). Another large part of consultation efforts focuses on EPA permitting (27 percent of consultation actions), as well as EPA response actions (6 percent) and tribal delegation (5 percent). EPA uses a Web-based database called the [Tribal Consultation Opportunities Tracking System](#) (TCOTS) to make information about upcoming and current EPA consultation opportunities publically available to tribal governments. The system also provides management, oversight, and a reporting structure to ensure accountability and transparency on EPA consultations with tribal governments.

FY 2014 was the second year that all EPA employees were required to take an online training to learn how the agency works effectively with Tribal governments. To support the Administrator's

theme of a new era of tribal partnerships, the agency continues to provide internal trainings to EPA employees to increase personnel awareness and understanding of EPA’s Consultation Policy; including how and when it applies to their work within the Agency to ensure consistency in application of the policy.

Tribal ecoAmbassadors Program

Piloted in 2011, the [Tribal ecoAmbassadors Program](#) is the first program of its kind at EPA. The Office of International and Tribal Affairs is committed to strengthening relationships with our tribal partners, and to making a visible difference in tribal communities, and this program helps fulfill both priorities. Tribal college and university (TCU) professors serve as the principal investigators and work with a group of their TCU students, who earn college credit and a small stipend. Each Tribal ecoAmbassador was paired with an EPA scientist knowledgeable in the area of their proposal. The American Indian Higher Education Consortium, composed of the presidents of all 37 TCUs, serves as our partner and contractor.

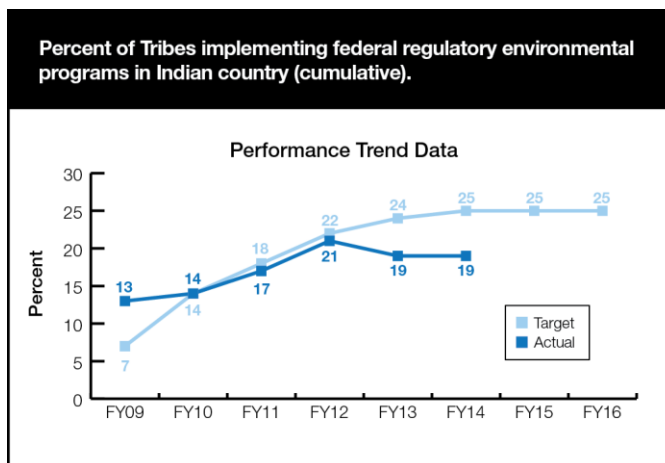
Through FY 2014, this program has given over 125 TCU students the opportunity to work with their professors and EPA scientists while solving environmental problems in their communities. Additionally, two transferable online courses, two lab courses, and two living laboratories are ready to share with other TCUs. In FY 2014, one of our Tribal ecoAmbassadors leveraged an additional grant from NASA using their work with solar energy analysis.

Over the past three years, EPA scientists have worked directly with the Tribal ecoAmbassadors and their students, resulting in 16 projects, including the creation of indoor air monitoring programs, curriculum on the collection of climate change data, and the creation of a recycled-material construction business. Within EPA, senior-level managers are using this program as a model for their work with TCUs; other external agencies and NGOs, including CDC, SBA, NOAA, U.S. Fish and Wildlife Service, the University of Colorado, Johns Hopkins University, and the University of Arizona have reached out to partner with the program.

FY 2014 Performance Challenges

Implementing Federal Regulatory Environmental Programs in Indian Country

The Percent of Tribes Implementing Federal Regulatory Environmental Programs in Indian Country performance measure represents federally recognized tribes that have the capacity to implement federal programs in a manner similar to a state (TAS) and/or receive funding to support EPA program implementation activities through “Direct Implementation Tribal Cooperative Agreements” (DITCAs). Tribes differ broadly in population,



culture, income, geography, economic development, environmental program management expertise, and priorities, making it increasingly difficult to assess how many more tribes will implement federal programs in the future. Many tribes also face legal barriers to federal approval for program implementation, and, as federal resources decline or remain stagnant and the cost of living continues to increase, the real dollars available to support capacity development and implementation shrink. Another challenge to this measure is that results do not reflect individual tribes' increasing capacities (e.g., when a tribe takes over more than one TAS approval, or is implementing program activities under a TAS approval and a DITCA).

To better measure progress in Indian Country, in FY 2014 EPA convened a workgroup to focus on tribal performance measurement. The group developed a framework for new performance measures, when applied across all media programs, will report on the status of tribes' capacity development and whether they are implementing federal environmental regulatory programs. These measures will be directly linked to the work funded under GAP and include a separate indicator to report on the number of regulatory TAS established by tribes. These new measures will demonstrate progress over time, along the continuum of program capacity development and implementation, recognizing that not all tribes will implement all federal programs. Ultimately, these results and efforts will help inform EPA as to where it needs to prioritize its direct implementation resources in Indian Country. In FY 2015, EPA is developing these new performance measures, consistent with the framework, issuing them as part of the FY 2017 budget.

Tribal Program Needs Assessment

Drawing from the FY 2014 strategic review, it is evident that EPA should conduct a comprehensive needs assessment of the work in Indian Country to ensure that protection of human health and the environment there is equal to elsewhere in the United States. Part of a larger planning process, a needs assessment will identify and measure current conditions—for example, the regulated entities in Indian Country, the regulated media in Indian Country (e.g., waterbodies), current and planned TAS for regulatory programs that have been provided to tribes, and current EPA direct implementation activities in Indian Country. Additionally, EPA plans to assess major data systems' capacity to track relevant information about regulated entities and activities (e.g., monitoring, permitting) in Indian Country and use these data to find current program implementation gaps. The goal of this multi-phased approach is to clearly identify problems, prioritize issues, and address the gaps in environmental protection in Indian Country.

Conducting a program evaluation to quantify the unaddressed environmental regulatory issues in Indian Country, including identifying these gaps in environmental protection, will be a tremendous undertaking. Results from the evaluation may require EPA to consider options for realigning its resources to prioritize and address the highest environmental needs in Indian Country.

Strategic Goal 4:

**ENSURING THE SAFETY OF CHEMICALS AND PREVENTING
POLLUTION**

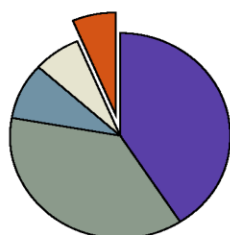
Goal 4 at a Glance

ENSURING THE SAFETY OF CHEMICALS AND PREVENTING POLLUTION

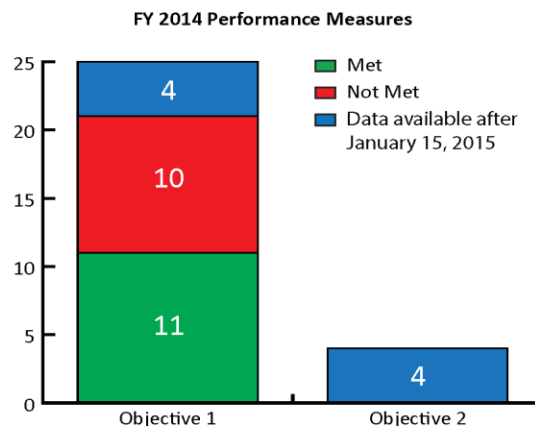
Reduce the risk and increase the safety of chemicals and prevent pollution at the source.

FY 2014 Performance Measures

Met: 11 Not Met: 10 Data Unavailable: 8
(Total Measures: 29)



- Taking Action on Climate Change and Improving Air Quality, \$1,031,180.0
- Protecting America's Waters, \$4,752,188.6
- Cleaning Up Communities and Advancing Sustainable Development, \$4,297,969.8
- Ensuring the Safety of Chemicals and Preventing Pollution, \$733,537.0
- Enforcing Environmental Laws, \$793,179.0



Strategic Objective Overview	FY 2014 Obligations*	% of Goal 4 Funds
Objective 4.1: Ensure Chemical Safety. EPA is making significant achievements in chemical assessment and online public access, along with progress in additional areas as new chemical review, chemical risk management, review of existing CBI cases. EPA is advancing the use of ToxCast high-throughput screening data and continues to reduce the risk of lead through outreach and certification programs. Challenges included statutory constraints affecting chemical assessment, and the sheer number of chemicals in commerce for which data are lacking.	\$676,964.2	92%
Objective 4.2: Promote Pollution Prevention. EPA is achieving significant environmental benefits through the development of P2 solutions (greener/leaner/safer chemicals, technologies, and practices) and promoting increased use of those solutions (e.g., increased institutional and consumer purchasing of greener products; increased industrial application of greener technologies and practices). P2 strategies are key elements of EPA's approach to achieving a sustainable future.	\$56,573.1	8%
Goal 4 Total	\$733,537.3	100%

*All figures in thousands

EPA CONTRIBUTING PROGRAMS

Chemical Risk Review and Reduction
Chemical Risk Management
Endocrine Disruptor Program
Science Policy Biotechnology
Protect Human Health from Pesticide Risk
Protect the Environment from Pesticide Risk
Realize the Value of Pesticide Availability
Lead Risk Reduction and Lead Categorical Grant Programs
Pesticides Program Implementation Categorical Grant Program
Pollution Prevention
Pollution Prevention Categorical Grant Programs

**STRATEGIC OBJECTIVE 1:
ENSURE CHEMICAL SAFETY**

Reduce the risk and increase the safety of chemicals that enter our products, our environment, and our bodies.

EPA's chemical safety programs are at the forefront of its efforts to advance a sustainable future. Chemicals are often released into the environment as a result of their manufacture, processing, use, and disposal, and people are exposed to chemicals in their homes, where they work and play, and in their use of products. The Agency uses a variety of approaches to ensure chemical safety, including review of new chemicals before they enter commerce and, for the tens of thousands of existing chemicals already in commerce, obtaining and making public chemical health and safety information, using that information to screen and assess chemical risks and chemical alternatives, and taking risk management action to eliminate or reduce identified risks.

Summary of Progress

EPA is making significant achievements in chemical assessment and online public access, along with progress in additional areas such as new chemical review, chemical risk management and review of existing Confidential Business Information (CBI) cases. Challenges include statutory constraints affecting chemical assessment and the sheer number of chemicals in commerce for which data are lacking.

The Endocrine Disruptor Screening Program (EDSP) activities include the preparation and sending of test orders, review of responses to test orders and other scientifically relevant information, analysis of Tier 1 data, and creation of Data Evaluation Records. Some activities address challenges associated with reaching Weight of Evidence (WoE) determinations for chemical, including the importance of having standard evaluation procedures, data evaluation templates, and data entry spreadsheet templates; requesting copies of cited literature as part of 90-day test order responses; collecting and organizing all relevant Part 158 data during the 90-day responses; and staff experience.

In FY 2014, EPA's pesticides program exceeded its FY 2014 goals for docket openings and work plan completions, demonstrating its commitment to meeting the October 1, 2022 mandated completion date for the first 15-year cycle of registration review. The pesticides program also identified some challenges such as compliance with the Endangered Species Act (ESA), National Academies of Science (NAS) recommendations implementation, and the challenges posed by lawsuits and petitions. By identifying these challenges, the agency can better focus on achieving established goals while working to resolve them. The NAS recommendations concerning ESA consultation between EPA, Fish and Wildlife Service, and National Marine Fisheries Service are being piloted on select chemicals. Any unexpected issues will be evaluated with our partners with the goal of fully incorporating the NAS report²⁵ recommendations in FY 2015. Likewise, we continue to work to resolve concerns raised in lawsuits and petitions.

²⁵ <http://www.epa.gov/oppfead1/endanger/2014/esa-reporttocongress.pdf>.

Meeting established goals and targets is a program priority; to that end, program management holds regular planning meetings to assess progress, discuss issues and their resolutions, and plan for more difficult/involved chemicals and how to deploy available resources to best meet the tasks at hand, while considering the additional resources that may be needed. Senior management and the appropriate program staff meet quarterly to review progress toward the strategic goals, the priority goal, key performance indicators, and annual measures issues that may affect goals and targets are raised at these meetings. Resolutions for these issues have included adopting workflow efficiencies, planning ahead to handle more challenging chemicals, and brainstorming measures that could best capture the accomplishments of the program.

Key FY 2014 Performance Accomplishments

FY 2014–FY 2015 Agency Priority Goal

By September 30, 2015, EPA will have completed more than 250 assessments of pesticides and other commercially available chemicals to evaluate risks they may pose to human health and the environment, including the potential for some of these chemicals to disrupt endocrine systems. These assessments are essential in determining whether products containing these chemicals can be used safely for commercial, agricultural, and/or industrial uses.

During FY 2014, EPA made progress in assessing the risks for pesticides and other commercially available chemicals. The agency continues to assess the safety of all active pesticide ingredients and ensure that pesticide products used across the country are safe for human health and the environment. The program has dedicated resources to ensure a robust pipeline of dockets and work plans, so that the agency can continue to keep pace to meet the FY 2015 risk assessment target and show its commitment and progress toward its statutory mandate to complete the first 15-year cycle of registration review by October 1, 2022.

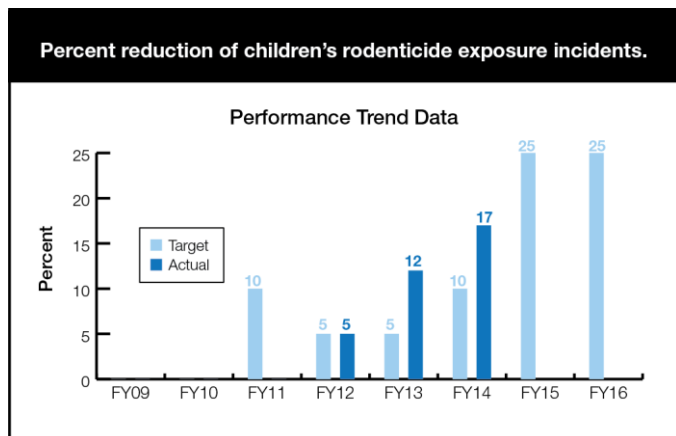
The TSCA Work Plan was created in FY 2012; its implementation has evolved with the first set of draft risk assessments in 2013 and with problem formulation experience on individual chemicals and chemical clusters. In FY 2014 EPA focused on finalizing the first set of TSCA risk assessments in 28 years, with a better understanding of the landscape of data available or needed, and continued assessments begun in 2013 for several challenging flame retardant clusters involving interagency consultation and further cancer analysis.

WoE determinations and EDSP program decisions for additional chemicals are in progress, but not yet completed. WoE determinations have proven to be more complex than originally anticipated. EDSP decisions for another 52 chemicals on the first list for screening are now targeted for completion in FY 2015.

Selected Key Performance Results

Reduction in Children's Exposure to Rodenticides

EPA aims to reduce rodenticide incidents involving younger children and infants by requiring that new rodenticide products be placed in tamper-resistant bait stations. In support of this effort, the Office of Pesticide Programs initiated regulatory action to cancel and remove non-compliant rodenticide products from the consumer market. These planned actions were met with a legal challenge, which concluded with the Agency achieving voluntary cancellation of the products in question. EPA expects to see continued reduction in incidents involving children under six.



Lead RRP Active Certified Firms

EPA's strategy to reduce risks from lead-based paint in homes and child-occupied facilities has, as a major focus, the implementation of the Agency's RRP rule, which went into effect in April 2010. This regulation requires that firms performing RRP activities that disturb lead-based paint in homes or child-occupied facilities built before 1978 be certified by EPA (or an EPA-authorized state) to conduct RRP work, use certified renovators trained by EPA-approved training providers, and follow lead-safe work practices. These work practices are designed to protect children and others from harmful exposure to lead-based paint that may be disturbed in the course of RRP work.

As of the close of FY 2014, EPA has determined that 139,702 firms had active certification in place to perform lead-safe RRP work under the RRP rule, meeting the FY 2014 annual performance target for this measure. The total number of firms certified to conduct RRP work using lead-safe methods continues to increase steadily. Available information suggests that there are enough certified firms to meet current consumer demand.

Ensuring Online Public Access to TSCA Chemical Information

EPA's online ChemView database is designed to enhance public access to health and safety data on chemicals regulated under TSCA. This system is a key element of the Agency's efforts to address concerns about the lack of basic information on the exposure, hazards, and risks of chemicals. ChemView allows users to view information EPA receives and develops in both summary form and in detail, and includes links to documents submitted to EPA and regulatory documents and scientific assessments developed by EPA, significantly enhancing access to chemical information in a one-stop shop.

In FY 2014, EPA expanded the content and improved the functionality of ChemView, which provides public access to health and safety data on chemicals regulated under TSCA. Added content in FY 2014, which brought the total number of chemicals in the database to nearly 10,000, included:

- 244 consent orders (the first time consent orders are in templates and posted).
- 72 test rule chemicals (for a total of 162, including data adequacy reviews).
- Over 1,000 new chemical Significant New Use Rules (SNURs), covering over 1,700 new chemicals.

Functional improvements included:

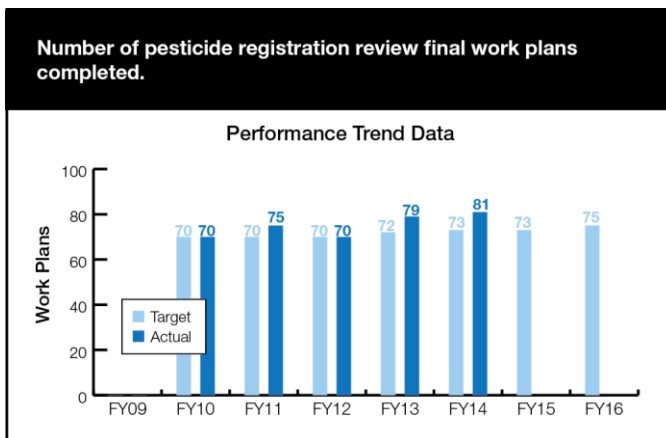
- Introducing accessibility to the Toxics Release Inventory (TRI) Program's Pollution Prevention tool for tracking source reduction and safer waste management practices from the ChemView user tab.
- Providing the functionality to search by Significant New Use Notices for SNUR-related information.
- Developing the administrative tools to quickly upload and provide information for public display.

Furthermore, the Agency has made a customer satisfaction survey available to stakeholders to gather information on how the Agency can improve the functionality, content, and appearance of ChemView.

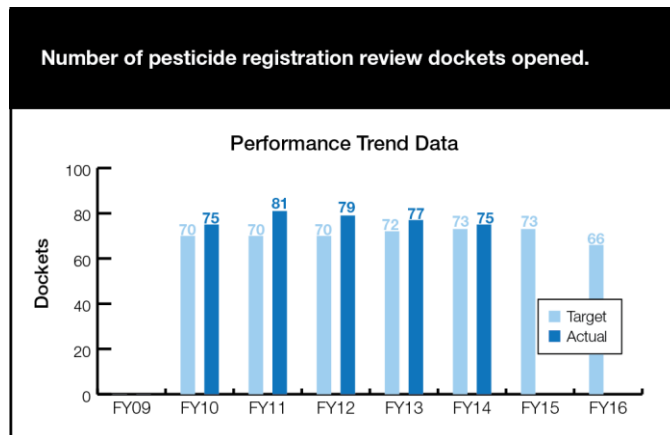
Annual Number of Pesticide Registration Review Dockets and Workplans Opened

EPA initiates a registration review by establishing a docket for a pesticide registration review case and opening the docket for public review and comment. The Agency publishes a *Federal Register* notice that announces the availability of the docket and provides a comment period of at least 60 days. Anyone may submit data or information in response. EPA will consider information received during the comment period in conducting a pesticide's registration review and complete a final

work plan, which explains what information EPA has on the pesticide and the anticipated path forward for the remainder of registration review. By sharing this information in the docket, EPA anticipates that the public will be better able to see what types of new or available data or other information would be helpful as the Agency moves toward a decision.



Through registration review, EPA is reviewing each registered pesticide every 15 years to determine whether it still meets the FIFRA standard for registration. In this way the Agency is ensuring that all registered pesticides do not cause unreasonable risks to human health, workers, or the environment when used as directed on product labeling. The scope and depth of the Agency's reviews are tailored to the circumstances, so registration reviews are commensurate with the complexity of issues currently associated with each pesticide.



By exceeding the number of planned docket openings and final workplans in FY 2014, EPA is demonstrating its commitment and progress toward its statutory mandate to complete the first 15-year cycle of registration review by October 1, 2022. Input received during the comment periods will help improve the accuracy and reliability of the risk assessments planned during registration review. This will allow EPA to fully assess the safety of all pesticide active ingredients and make sound regulatory decisions to ensure the continued safe use of pesticides.

Assessment of TSCA Work Plan Chemicals

EPA is carrying out its plans to assess TSCA Work Plan Chemicals identified in March 2012 for review and prospective risk management action if warranted. Considerable progress has been achieved with the release of final risk assessments for four Work Plan Chemicals in FY 2014 (exceeding the agency target of three) and further assessment work in progress.

The four Work Plan Chemicals assessed in FY 2014 were TCE, DCM, ATO, and HHCB. Following public comment and peer review of this first series of assessments, EPA has made further process improvements to structure and systematize problem formulation of subsequent work plan assessments. In response to findings of risk for both TCE and DCM, EPA has commenced dialogue with stakeholders to explore safer alternatives and risk reduction approaches, including both voluntary and regulatory actions. (The assessments of ATO and HHCB indicated low risks associated with the uses reviewed for those chemicals.) Additionally, in FY 2014, the Agency released an updated list of TSCA Work Plan Chemicals, taking into account the latest information obtained through Chemical Data Reporting and the TRI.

The Agency conducted workshops with stakeholders regarding possible approaches to manage the risks identified in the first of the final assessments released in FY 2014 (for TCE), and completed assessments of safer alternatives for TCE. These prospective actions would be in addition to the multiple risk management actions taken by EPA under TSCA for potentially harmful chemicals, including finalization of 65 SNURs covering 90 new chemicals in FY 2014.

Chemical Safety for Sustainability Dashboards

EPA's chemical safety researchers used rapid, automated (high-throughput) chemical screening technology to evaluate over 1,800 high priority chemicals for potential toxicity. The innovative chemical screening technology tests for different types of toxicity such as reproductive and developmental effects, and cancer. In FY 2014, EPA launched a beta version of the interactive Chemical Safety for Sustainability Dashboards to improve user experience in accessing chemical data. Having rapid, automated predictions for toxicity and exposure provides EPA with the means for efficient risk-based prioritization of chemicals. This research is taking the steps to implement the National Academies of Science recommendations in the *Exposure Science in the 21st Century: A Vision and a Strategy* report and the *Toxicity Testing in the 21st Century* report and is the first regulatory application of the technology.

BOTE release

As the lead federal entity for responding to biological, chemical, and radiological contamination events, EPA plays a major role in preparing the nation to respond to acts of bio-terrorism. In February 2014, EPA announced the results of a multi-year project called *Bio-Response Operational Testing and Evaluation* (BOTE), a two-phase demonstration project to test and advance decontamination methods that can be used after anthrax spores have been released into a building. The results of this research will help provide state and local leaders, on-scene coordinators, waste managers and others with a guideline for effective decontamination in the event of a biological threat. Because BOTE included partnerships among several government agencies, the methods developed and lessons learned have been shared throughout the homeland security community, continuing to expand the impact of EPA research efforts.

Release of PARIS III

In 2014, EPA released PARIS III, or "Program for Assisting the Replacement of Industrial Solvents, version 3.0," designed to help any environmentally-conscious individual effectively and efficiently find better and greener solvent mixtures for many different common industrial processes. Aiming to reduce that practice, EPA researchers developed this free software tool to help companies find alternate chemical mixtures or solvents that still improve their industrial processes but are not as harmful to our environment.

Performance Challenges

EDSP's WoE Determinations

EPA's performance measure, Number of Chemicals for which Scientific Weight of Evidence Determinations have been completed, represents an intermediate step leading to EDSP decisions. It accounts for the number of scientific WoE and hazard characterizations completed; these hazard characterizations are based on the integrated scientific reviews of the Tier 1 data, in combination with other scientifically relevant information and existing toxicity information (e.g., 40 CFR part 158). Integrating these streams of data to ascertain a chemical's potential to interact with endocrine systems has proven more complex than originally anticipated. Therefore, the agency will complete

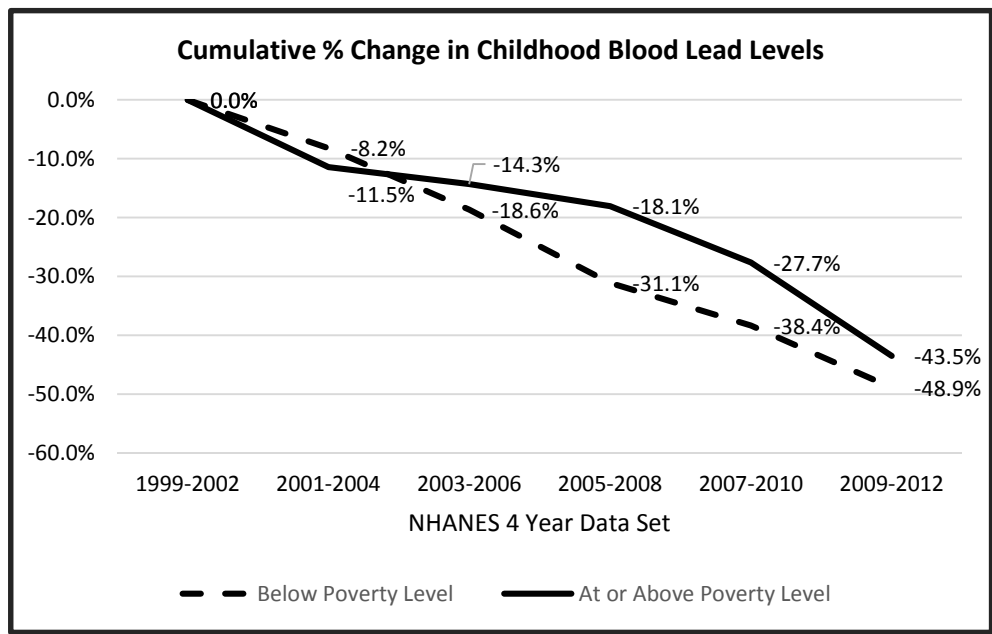
preliminary WoE determinations for 52 chemicals on the first list for screening and conduct a retrospective analysis and consistency check before finalizing the decisions. These decisions are now anticipated for completion in FY 2015.

Chemical Safety Work Hampered by TSCA Limitations

EPA’s chemical safety work has been hampered for many years by widely recognized limitations in the extent of authority granted under TSCA. Both the General Accountability Office and EPA’s Office of Inspector General have identified TSCA regulatory constraints as a key management challenge affecting the Agency’s ability to regulate chemicals found to pose unreasonable risk to human health or the environment. Perhaps most significantly, TSCA limitations increase the difficulty of obtaining information needed to assess chemical hazard, exposure, and risk. EPA believes that statutory reform is needed to strengthen the tools available to increase confidence in the safety of chemicals in commerce. Until legislative action takes place, EPA is proceeding to the extent of its ability under current law to secure needed chemical data, implement chemical assessment work and, where indicated, take action to manage chemical risk.

Persistent Income-Related Disparities in Reducing Children’s Blood Lead Levels

The NHANES survey data for 2009–2012 show that geometric mean BLLs decreased from the 2005–2008 value at a faster rate (31 percent) for non-low-income children than for low-income children (26 percent), increasing the income-related disparity. The EPA is assessing these data to determine if the underlying factors influencing these changes can be identified.



The NHANES data do indicate that BLLs among lower-income children have decreased substantially over time, nearly 50 percent cumulatively from the 1999–2002 geometric mean value (2.6 µg/dL down to 1.33 µg/dL). Thus, the persistent income disparity does not

mean that lower-income children are failing to derive significant benefit from lead reduction efforts.

EDSP's Environmental Justice Activities

This activity was intended to broaden participation in environmental justice (EJ) awareness. During the July Scientific Advisory Panel (SAP), public comments from a well-recognized EJ scientist were entered into the public docket and other interested advocates in the EJ community provided suggestions/comments.

EPA identified several activities in FY 2014 to increase the incorporation of EJ or disproportionate impact considerations into EDSP and SAP activities. Public comments and scientific information reflecting EJ interests will help EPA decrease uncertainties and increase confidence in the scientific models that assess impacts on various demographic groups. Within the SAP, efforts are underway to expand outreach efforts within the EJ community to increase participation of scientists with EJ interests on FIFRA SAPs as ad hoc panel member experts, as well as to involve individuals and groups within the EJ community in the SAP evaluation process via public awareness of the Agency's activities.

Implementation of Endangered Species Act During Registration Review

EPA, the U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), and the U.S. Department of Agriculture (USDA) are continuing to develop—and work toward implementation of—interim scientific approaches for assessing the risks of pesticides to listed endangered species. Given this fact, and based on the recommendations from the April 2013 NAS report, current Registration Review preliminary risk assessments typically do not contain complete endangered species analysis that includes effects determinations for specific listed species or designated critical habitat.

Once the agencies have fully developed and implemented the scientific methods necessary to complete risk assessments for listed species and their critical habitats, these methods will be applied to subsequent analyses as part of completing Registration Review. In the meantime, EPA will conduct screening-level assessments for all taxa of non-target wildlife and plants that assume that listed species and designated critical habitats may be present in the vicinity of pesticide use. These screening-level assessments will allow EPA to focus its future evaluations on the types of species where the potential for effects exists once the scientific methods being developed by the agencies have been fully vetted.

**STRATEGIC OBJECTIVE 2:
PROMOTE POLLUTION PREVENTION.**

Conserve and protect natural resources by promoting pollution prevention and the adoption of other sustainability practices by companies, communities, governmental organizations, and individuals.

To advance pollution prevention (P2), EPA focuses on two key strategies: fostering the development of P2 solutions (greener/leaner/safer chemicals, technologies, and practices) and promoting increased use of those solutions (e.g., increased institutional and consumer purchasing of greener products; increased industrial application of greener technologies and practices). These strategies have demonstrated success in reducing the use of hazardous materials, energy, and water and reducing the generation of greenhouse gases (GHGs), while significantly increasing the use of safer chemicals and products and enabling businesses and governments to reduce their costs. These P2 strategies are key elements of EPA's approach to achieving a sustainable future.

Summary of Progress

With respect to fostering the development of new P2 solutions, significant accomplishments in FY 2014 included:

- Recognizing the FY 2014 [Presidential Green Chemistry Award](#) winners, including an award-winning display and lighting technology that could significantly reduce cadmium and toxic solvents and save the equivalent electricity consumption of 50,000 average American homes a year (over 600 million kilowatt-hours).
- Continuing to provide agency technical input for developing and promoting greener electronics and voluntary consensus standards for imaging equipment, televisions, computers, and servers, which will generate significant P2 results in future years as these products are purchased.

With respect to promoting increased use of P2 solutions, significant accomplishments in FY 2014 included:

- Convening the Green Chemistry Roundtable with Presidential Green Chemistry Award winners and other stakeholders, intended to increase the market penetration of green chemistry solutions.

Engaging with stakeholders and the public on possible label options for a redesigned Design for the Environment (DfE) logo intended to increase consumer awareness of the benefits of labeled products as well as consumer purchasing of such products. Expanding to a total of 27 states the Economy, Energy, and Environment (E3) program, through which EPA collaborates with five other federal agencies, states, and local communities to connect respective programs to deliver responsive, coordinated solutions in a manufacturing environment. The E3 program focuses on strengthening small to medium-sized American manufacturers, which represent the largest proportion of the manufacturing sector, and helps boost local economies to achieve sustainability goals. Nearly 200 additional E3 assessments were conducted in FY 2014.

The P2 program produced significant environmental benefits in FY 2013, indicating that the program will be able to achieve the strategic targets for reducing water use, GHG emissions, and hazardous materials and for increasing cost savings through pollution prevention. Due to regular lags in the data needed to determine performance results, the P2 program's most currently available accomplishments associated with GPRA outcome measures are those achieved in FY 2013.

Key FY 2014 Performance Results

Environmentally Preferable Purchasing

The Environmentally Preferable Purchasing (EPP) program achieves significant environmental outcome results for the P2 program through its contribution to the development and promotion of voluntary consensus standards for environmentally preferable products. Recent efforts have focused on standards for greener electronics products such as computers, imaging equipment, televisions, and servers. By encouraging the purchase of these products by federal agencies, the EPP program reduces emissions of hazardous and non-hazardous materials from the manufacture, sale, and disposal of products. These products also deliver environmental benefits of reduced GHG emissions, especially through increased energy efficiency, which provides additional cost savings to manufacturers and consumers. Additionally, by promoting products with longer replacement cycles, the EPP program achieves lifecycle environmental benefits and promotes sustainability by avoiding the manufacture of replacement products.

In FY 2014, the EPP program provided technical input to efforts to update the Federal Acquisition Regulation (FAR) to require federal agencies to procure greener imaging equipment and televisions, in addition to computers. EPP program staff coordinated EPA technical input on the IEEE 1680.2 Standard for the Environmental Assessment of Imaging Equipment and the IEEE 1690.3 Standard for the Environmental Assessment of Televisions. EPP program staff also co-chaired the standard development working groups, and co-funded facilitation of these working groups. The addition of imaging equipment and televisions in 2013, and the amended FAR (updated June 2014) requiring federal agencies to procure greener imaging equipment and televisions, will lead to increased environmental results in FY 2015 and beyond. The EPP program is currently expanding its Electronics Environmental Benefits Calculator to quantify these results.

The program also continued in FY 2014 to bring the Agency's technical input to the development of new environmental performance standards for electronics. The program has been instrumental in developing a new standard for servers (expected to be finalized in 2015) and in the revision of the standard for computers. Program staff have also been involved with the development of a standard for mobile devices. In FY 2014, slates/tablets were added to the inventory of greener electronic products, which is expected to increase environmental results in FY 2015 and beyond.

The EPP program has also led the development of draft guidelines for assessing ecolabels and environmental performance standards. These standards were published as draft for public comment in FY 2014 and pilots will be conducted in FY 2015. These guidelines, once implemented, are expected to greatly enhance federal green purchasing by meeting the needs for clear guidance to purchasers for additional categories of products commonly purchased in the federal community.

Expanding the DfE Safer Product Labeling Program and Safer Chemical Ingredients List

The DfE program is continuing to make significant progress toward its FY 2018 strategic targets to recognize an additional 1,500 products under the Safer Products Labeling Program and list another 400 chemicals on the Safer Chemical Ingredients List. In FY 2014, the program recognized another 220 products and chemicals. The program is evaluating additional product categories for inclusion under the Safer Products Labeling Program, including personal care products and industrial/institutional categories, and adding new chemical categories for the Safer Chemical Ingredients List.

Additionally, in FY 2014 the program worked to develop a new logo for labeled products that will help consumers, businesses, and institutional buyers more easily recognize products that have earned the EPA Safer Product Label by meeting stringent health and environmental criteria. The program engaged with stakeholders in the chemical and product manufacturing industry, retailers, and environmental organizations in the development of the logo, and has sought public opinion on four draft logo proposals. EPA plans to launch the redesigned logo in FY 2015 in conjunction with an assessment of its effectiveness in influencing consumer knowledge and purchasing behavior.

Performance Challenges

Aggregating P2 Results

The P2 Program is currently experiencing a significant challenge in enhancing the transparency of and aggregating P2 results across the entire program, complicating the program's efforts to trace results back to their sources for purposes of validation. To address this, the program is developing the P2 GrantsPlus Database – a system that will allow regional offices to enter their grant and non-grant P2 projects, methodologies and results. It will also accommodate supporting documentation, and track when disaggregate results are updated in response to quality checking in headquarters. Aggregating results data will be much more efficient and transparent.

Strategic Goal 5:

**PROTECTING HUMAN HEALTH AND THE ENVIRONMENT
BY ENFORCING LAWS AND ASSURING COMPLIANCE**

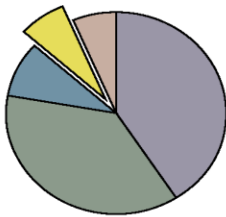
Goal 5 at a Glance

PROTECTING HUMAN HEALTH AND THE ENVIRONMENT BY ENFORCING LAWS AND ASSURING COMPLIANCE

Protect human health and the environment through vigorous and targeted civil and criminal enforcement. Use Next Generation Compliance strategies and tools to improve compliance with environmental laws.

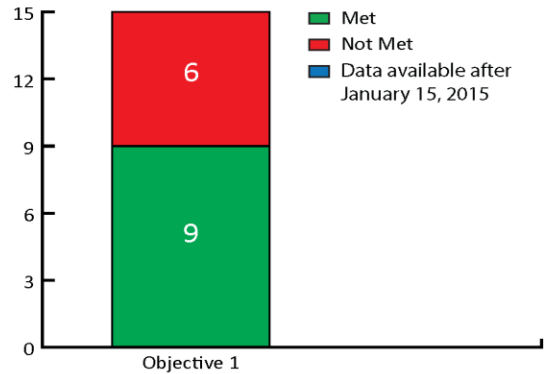
FY 2014 Performance Measures

Met: 9 Not Met: 6 Data Unavailable: 0
(Total Measures: 15)



- FY 2014 Obligations***
- Taking Action on Climate Change and Improving Air Quality, \$1,031,180.0
 - Protecting America's Waters, \$4,752,188.6
 - Cleaning Up Communities and Advancing Sustainable Development, \$4,297,969.8
 - Ensuring the Safety of Chemicals and Preventing Pollution, \$733,537.0
 - Enforcing Environmental Laws, \$793,179.0

FY 2014 Performance Measures



Strategic Objective Overview	FY 2014 Obligations*	% of Goal 5 Funds
Objective 5.1: Enforce Environmental Laws to Achieve Compliance. A wide range of activities enable EPA's enforcement and compliance offices to make progress towards this objective: applying new technology to better target inspections; focusing on cases that address the worst environmental problems, the highest risks, and significant noncompliance; and ensuring federal facility compliance and cleanup of Superfund sites.	\$793,178.9	100%
Goal 5 Total	\$793,178.9	100%

*All figures in thousands

EPA CONTRIBUTING PROGRAMS

Environmental Justice
Compliance Assistance Program
Environmental Technology Verification Program, Monitoring and Enforcement Program
National Center for Environmental Innovation
National Partnership for Environmental Priorities
Economic Decision Sciences Research
Pesticide Enforcement Grant Program
Sector Grant Program
Sustainable Materials Management
Toxic Substances Compliance Grant Program
Sustainability Research
Superfund Enforcement
RCRA Corrective Action

STRATEGIC OBJECTIVE 1: ENFORCE ENVIRONMENTAL LAWS TO ACHIEVE COMPLIANCE.

Pursue vigorous civil and criminal enforcement that targets the most serious water, air, and chemical hazards in communities to achieve compliance. Assure strong, consistent, and effective enforcement of federal environmental laws nationwide. Use Next Generation Compliance strategies and tools to improve compliance and reduce pollution.

Vigorous enforcement to achieve compliance is critical to EPA's work to protect human health and the environment. EPA works with state, tribal, and territorial agencies as co-regulators to achieve compliance across the country. EPA will continue to focus federal enforcement on the most important environmental problems where noncompliance is a significant contributing factor and where federal enforcement attention has a significant impact; in 2014, this approach resulted in several landmark cases.

EPA focuses federal enforcement resources on high-impact cases using several means, including [Next Generation Compliance](#), [national enforcement initiatives](#) (NEIs), and performance measures and goals. A wide range of activities enable EPA's enforcement and compliance offices to make progress toward strategic objective 5.1: applying new technology to better target inspections; focusing on cases that address the worst environmental problems, the highest risks, and significant noncompliance; and ensuring federal facility compliance and cleanup of Superfund sites.

Summary of Progress

Under this strategic objective, EPA has focused nationally on the worst environmental problems, highest risks, and most significant areas of noncompliance where federal enforcement can have a significant impact. The Office of Enforcement and Compliance Assurance (OECA) also uses injunctive relief and supplemental environmental projects as tools to achieve beyond-compliance results and benefit the public. For example, in FY 2013, EPA pursued justice for Gulf Coast residents through litigation of the *Deepwater Horizon* cases in coordination with the Department of Justice. Transocean Deepwater Inc. agreed to pay \$1.4 billion in civil penalties, criminal fines, and court-ordered environmental projects for violating the Clean Water Act, as well as substantial injunctive relief to improve the safety of oil drilling practices, spill response, and preparedness. MOEX Offshore, LLC has agreed to pay \$70 million in civil penalties and spend \$20 million for supplemental environmental projects. BP Exploration and Production Inc. was sentenced to pay \$4 billion in criminal fines and court-ordered environmental projects and the civil case against BP PLC continues. Since 2010, enforcement actions have reduced, treated, or eliminated about 7.3 billion pounds of pollution and required about \$60 billion in injunctive relief and about \$138 million in supplemental environmental projects.

OECA identifies and focuses on priority environmental risks and significant noncompliance problems through the NEIs. The six initiatives address some of the more complex pollution problems in our nation. To date, we have inspected approximately 59 percent of mineral processing facilities, addressed 92 percent of large combined sewer systems with untreated sewer overflows,

HIGH-IMPACT CIVIL AND CRIMINAL ENFORCEMENT CASES

[Tonawanda Coke Corporation](#) was ordered to pay a \$12.5 million penalty and make \$12.2 million in community service payments for criminal violations of the Clean Air Act and the Resource Conservation and Recovery Act.

[P&W Waste Oil Services Inc. of Leland, North Carolina; CITGO Petroleum; and CITGO Refining and Chemicals Company LLP](#) were sentenced to pay more than \$2 million for illegal and dangerous chemical emissions from a refinery in Corpus Christi, Texas.

The [Kerr-McGee Corporation and related subsidiaries of Anadarko Petroleum Corporation](#) settlement has gone into effect (in FY 2015) and will provide more than \$4.4 billion for cleanup at over 2,700 sites in 47 states, making it the largest recovery for the cleanup of environmental contamination in history.

[Eastman Kodak Company](#) committed to fund a trust with \$49 million for cleanup at the Eastman Business Park site and the Genesee River.

[SPT, Inc.](#), agreed to put \$3 million in a trust fund to clean up offshore contamination at Sparrows Point, Maryland.

inspected over 1,700 concentrated animal feeding operations, conducted over 2,600 energy extraction evaluations, evaluated over 1,700 air-toxic-emitting facilities, and controlled over 600 coal-fired electric utility units.

EPA has designed and is now implementing Next Generation Compliance efforts, which should yield: 1) regulations and permits with built-in compliance drivers; 2) more use of advanced emissions/pollutant detection technology; 3) a shift toward electronic reporting; 4) expanded transparency, which drives compliance; and 5) innovative enforcement approaches, such as fence-line monitoring and third-party certification/verification tools. As part of this work, EPA has trained hundreds of its staff and managers to design effective rules with built-in compliance drivers; developed rules that would require fence-line monitoring to provide emissions data; incorporated advanced monitoring technology into enforcement settlements; and proposed an electronic reporting rule

for the National Pollutant Discharge Elimination System that would modernize environmental data reporting for thousands of facilities. To increase transparency, EPA has enhanced its [Enforcement and Compliance History Online \(ECHO\) website](#), which allows the public to get information about the compliance record of over 800,000 facilities. EPA is also advancing other innovative projects in partnership with the states as part of the [E-Enterprise for the Environment](#) initiative.

To help municipalities meet their Clean Water Act obligations, EPA developed an integrated planning process that allows municipalities to optimize the benefits of their [infrastructure improvement investments](#) through the appropriate sequencing of work. This approach can also lead to more sustainable and comprehensive solutions, such as [green infrastructure](#), that improve water quality and enhance community vitality. EPA has also developed tools to better target facilities for inspections and enforcement actions. For example, the [Safe Drinking Water Enforcement Targeting Tool](#) has helped to reduce by over 70 percent the number of public water systems with serious violations.

Key FY 2014 Performance Results

During FY 2014, federal enforcement focused on the most important environmental problems where noncompliance is a significant contributing factor, where [federal civil or criminal enforcement actions](#) can have a significant impact. Some important FY 2014 achievements that resulted from this focus are:

- Commitments in EPA enforcement cases to reduce, treat, or eliminate an estimated 1.2 billion pounds of pollution of air, water, pesticides, toxics, and hazardous waste pollution.
- Company investments of more than \$9.7 billion in required actions and equipment to control pollution and redress harm from pollution, directly benefiting nearby communities.
- Agreements from companies to spend more than \$17 million on supplemental environmental projects, which are projects that complement traditional fines and penalties to address harm to adjacent communities and the environment from illegal pollution.
- FY 2014 commitments from potentially responsible parties to spend more than \$600 million cleaning up contamination at Superfund sites.
- Commitments to clean up 870 million cubic yards of contaminated soil and groundwater media as a result of concluded Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) corrective action enforcement actions.
- \$163 million in criminal fines and restitution and civil penalties (administrative and judicial), and another \$16 million in court-ordered environmental projects.
- A 95 percent conviction rate for criminal defendants and a combined total incarceration of over 155 years.
- EPA reviewed and commented on more than 300 draft and final Environmental Impact Statements as required by law, including several high-profile proposed federal actions.

HIGH-IMPACT CIVIL AND CRIMINAL ENFORCEMENT CASES

[Lowe's Home Centers](#) agreed to implement a corporation-wide compliance program at 1,700 stores nationwide and will pay a \$500,000 civil penalty due to violations of the Lead Renovation, Repair, and Painting Rule.

[DuPont](#) will pay a \$1.275 million penalty and spend about \$2.3 million as injunctive relief to complete required improvements to its safety and emergency response processes and pay a \$1,853,000 penalty for violations of pesticide reporting and distribution laws.

[Harrell's LLC](#) agreed to pay a \$1,736,560 penalty for pesticides production and distribution violations.

[Elementis Chromium, Inc.](#), was ordered to pay a \$2,571,800 penalty for failing to disclose information about substantial risk of injury to human health from a known carcinogen used at the plant, as required by the Toxic Substances Control Act.

[Newfield Production Company](#) settled violations of the Safe Drinking Water Act in the Monument Butte Well Field in Duchesne County, Utah on the Uintah and Ouray Reservation.

The [Omaha Tribe of Nebraska](#) resolved longstanding violations of the Resource Conservation and Recovery Act, the Safe Drinking Water Act, and the Clean Water Act.

In FY 2014, EPA conducted more than 15,600 federal inspections and evaluations. EPA initiated approximately 2,300 civil judicial and administrative cases and concluded approximately 2,300

cases. The case initiation and conclusion numbers were lower than the targets (3,200 and 2,800 respectively) as a result of focusing on the largest most complex cases. This approach best protects public health not only by addressing the most serious pollution problems, but also by directing EPA resources to cases that may not be addressed by states because the noncompliance is of such a large scale that EPA is best suited to take action. The number of cases was also impacted by the federal government shutdown in 2014, the employee furloughs in 2013, and the need to devote resources to the monitoring of ongoing consent decrees.

In the pursuit of public health protection, in FY 2014, EPA civil enforcement actions resulted in a total of \$100 million in civil penalties (administrative and judicial) to achieve compliance, punish misconduct, and deter other violators. Maintaining the strong backbone of enforcement while advancing and implementing Next Generation Compliance approaches was a focus in FY 2014 as illustrated by the examples in this report.

Moving Next Generation Compliance from Design to Implementation

During FY 2014, EPA made progress implementing each of the [five components of Next Generation Compliance](#).

1. Regulation and permits design:

- In FY 2014, EPA proposed [Petroleum Refinery Risk and Technology Review and New Source Performance Standards](#), which would require additional toxic air emission control requirements for storage tanks, flares, and coking units at petroleum refineries. The proposed rule includes fence-line monitoring to ensure that applicable air standards are being met and neighboring communities are not being exposed to unintended emissions.
- During FY 2014, OECA trained more than 400 EPA and state staff and managers on the roles of EPA staff in improving rule effectiveness, and issued both guidance and a workbook on how to design more effective rules to maximize compliance and environmental benefits.

2. Advanced monitoring:

- Beyond infrared cameras, EPA is using other advanced technologies such as Geospatial Measurements of Air Pollution (i.e., use of vehicles with measurement systems) to find emission leaks that would otherwise be difficult to detect.
- Advanced monitoring requirements were incorporated into several enforcement settlements ([AL Solutions Inc.](#), and [Calumet Shreveport Lubricants and Waxes, LLC](#)).
- EPA hosted a [“Next Generation Compliance Advanced Monitoring Tech Demo Day”](#) that convened some of these latest advances in pollution monitoring across the country. EPA, academia, industry, and nonprofit organizations presented many solutions, each with a unique approach to solve complex pollution challenges.

3. Electronic reporting:

- During FY 2014, EPA drafted a Supplemental Notice in support of the [NPDES Electronic Reporting Rule](#) to provide additional clarity, describe other options under

consideration, and give the public another opportunity to comment after publication in the *Federal Register*.

- EPA developed new capabilities for the Electronic Notice of Intent tool, called the NPDES eReporting Tool (NeT), which supports reporting of NPDES data by applicants for general NPDES permits.
- EPA completed work necessary to move EPA's NPDES Multi-Sector General Permit to electronic reporting and integrate it with another EPA system, ATTAINS, which is used for receiving impaired waters information and data transfer to the Integrated Compliance Information System.
- In FY 2014, EPA Region 1 reissued the city of Chelsea's NPDES permit with requirements for electronic reporting of discharge monitoring reports (DMRs) using NPDES NeT DMR. As well, the final Vessel General Permit became effective, with several electronic reporting requirements.
- During FY 2014, EPA completed the modernization of the Air Facility System to a new air component of the Integrated Compliance Information System (ICIS-Air) and conducted training sessions with more than 150 state and local agency users.

4. Expanded transparency:

- During FY 2014, EPA added functionality to [ECHO](#)—enhanced searches for data related to compliance, violations, enforcement cases, specific facilities, and/or pollutants for the Clean Water Act, Clean Air Act, RCRA, CERCLA, and multi-media enforcement programs.

5. Innovative enforcement:

- The Next Generation Compliance components listed above are being incorporated into civil and criminal case resolution, making it easier to know if facilities are complying and providing more information to the communities affected.
- Examples of innovative enforcement cases with Next Generation components are discussed throughout this report, including, for example, [Alpha Natural Resources](#), [Titanium Metals Corporation](#), [Lowe's Home Centers](#), [AL Solutions Inc.](#), and [Calumet Shreveport Lubricants and Waxes, LLC](#).
- EPA has developed a Sharepoint site that identifies EPA settlements with Next Generation components.
- EPA also evaluated the use of new data analytics technology and completed the enhanced analytic pilot for integrating OSHA and EPA data as another tool for targeting compliance monitoring.

National Enforcement Initiatives

EPA's six [NEIs](#) address some of the more complex pollution problems in our nation:

- 1. Keeping raw sewage and contaminated storm water out of our nation's waters.** To date, EPA has addressed 196 large combined sewer overflow systems (19 in FY 2014) and 883 large sanitary sewer overflow systems (55 in FY 2014). Notable FY 2014 cases for this NEI include the [East Bay Municipal Utility District](#), the [city of Mishawaka](#), the

[Metropolitan Water Reclamation District of Greater Chicago](#), the [city of Shreveport, Miami–Dade County](#), and the [San Antonio water system](#).

2. **Preventing animal waste from contaminating surface and ground water.** To date, EPA has concluded 387 enforcement actions for violations associated with concentrated animal feeding operations, as illustrated by [County Edge Dairy Inc.](#) This includes 26 concluded enforcement actions in FY 2014.
3. **Cutting toxic air pollution that affects communities' health.** To date, EPA has evaluated over 1,700 air toxic emitting facilities, as illustrated by [DuPont](#). EPA also issued an industry-wide Flaring Efficiency Enforcement Alert and individual-facility flaring notice letters to the full universe of petroleum refineries and petrochemical and organic chemical manufacturers operating steam-assisted flares.
4. **Reducing widespread air pollution from the largest sources (especially the coal-fired plant, cement kiln, glass, and acid manufacturing sectors).** To date, the New Source Review/Prevention of Significant Deterioration initiative has begun investigations for 103 cement plant facilities, 127 glass facilities, 109 acid manufacturing facilities, and 863 coal-fired electric utility units. Notable cases in FY 2014 for this NEI include [Minnesota Power](#), [Cabot Corporation](#), and [Consumers Energy](#).
5. **Reducing pollution from mineral processing operations.** EPA has inspected 107 mineral processors and addressed 61 to date. Notable FY 2014 cases for this NEI include [Titanium Metals Corporation](#), the [court decision in the Tronox bankruptcy](#), the EPA Region 9 settlement with [Nevada Gold Mining Company Veris Gold USA, Inc.](#), and the EPA Region 10 settlement with the [Oregon Metallurgical of Albany and TDY Industries of Millersburg](#).
6. **Ensuring energy extraction sector compliance with environmental laws.** EPA has conducted 2,627 inspections/evaluations to date (723

ENFORCING ENVIRONMENTAL LAWS AT FEDERAL FACILITIES TO ENSURE COMPLIANCE

EPA's FY 2014 federal facilities enforcement program included a record number of formal disputes with federal agencies at National Priorities List sites and emergency actions at other major cleanups nationwide. These cleanup disputes and actions, at nearly a dozen federal facilities, will help restore contaminated ground water, reinforce necessary cleanup remedies, address abandoned munitions and emerging contaminants of concern, promote public involvement, and enforce proper land use controls for any contamination left behind. Notable FY 2014 agreements include [Camp Minden, Louisiana](#) and [Fort Gillem, Georgia](#). In addition, EPA commenced formal enforcement proceedings with respect to the [Department of Energy's Hanford site](#) for failure to meet remedial action milestones. These and other forceful EPA actions at federal facility cleanup sites affirmed the federal government's obligation to meet the same standards as others.

Also in FY 2014, EPA released a new updated and electronic version of "[Yellow Book](#)," which is a guide to environmental enforcement and compliance at federal facilities. The Yellow Book serves as the primary information source on environmental compliance to thousands of federal environmental professionals and others across the nation, and is now available on the EPA website or through [FedCenter](#).

in FY 2014) to ensure compliance with environmental laws in the burgeoning natural gas extraction sector across the United States. Notable FY 2014 cases under this NEI include [Chesapeake Appalachia, LLC](#), and [Gasco Energy Inc.](#)

Performance Challenges

Electronic Reporting

To improve reporting efficiency, improve compliance, and increase publicly available compliance information, EPA is working to convert to electronic reporting as described above. This effort will require some short-term budget investments but is expected to provide substantial long-term benefits for industry, states, EPA, and the public. However, reductions of federal and state resources for environmental work over the past several years has slowed down the transition to electronic reporting and other aspects of Next Generation Compliance, thereby delaying the expected benefits.

The federal government shutdown in FY 2014 and employee furloughs in FY 2013 resulted in fewer federal cases overall due to disruptions in case work. In addition, the necessary focus on high-impact cases has contributed to a reduction in the total number of cases.

CROSS-AGENCY STRATEGIES

Introduction

This is the first year of the FY 2014-2018 EPA Strategic Plan's cross-agency strategies. Stemming from agency and Administrator priorities, these strategies outline how EPA plans to fundamentally change how it works, both within and outside the Agency, to achieve its mission results.

The strategies are national, multi-year, cross-program priorities that require collaborative engagement beyond traditional organizational boundaries. Agency efforts to advance the strategies are taking hold, buoyed by our experience over the last few years, as we implement a new set of strategies and a reconfigured governance structure.

EPA establishes annual action plans to implement these multi-year strategies to ensure meaningful and specific efforts each year. The FY 2015 action plans can be found at <http://www2.epa.gov/planandbudget/strategicplan>.

WORKING TOWARD A SUSTAINABLE FUTURE.

Advance sustainable environmental outcomes and optimize economic and social outcomes through Agency decisions and actions, which include expanding the conversation on environmentalism and engaging a broad range of stakeholders.

This cross-agency strategy advances the national goal of achieving “conditions under which humans and nature can exist in productive harmony and fulfill the social, economic, and other requirements of present and future generations,” as established in the National Environmental Policy Act of 1969. EPA will consider and apply sustainability principles to its work on a regular basis, collaborating closely with stakeholders. Our traditional approaches to risk reduction and pollution control cannot always fully achieve our long-term and broad environmental quality goals. The interplay between different environmental statutes and programs also requires renewed attention to improve “synergy” and long-term solutions. Activities that support this work include technology-based innovation, regulatory processes, incentive-based efforts to complement those regulations, and external outreach.

Summary of Progress

The Agency has made progress on the three major actions in the cross-agency strategy: identifying cross-program priority areas to advance sustainability objectives, engaging and empowering staff, and working to expand the conversation on environmentalism with stakeholders. Next steps in the FY 2015 Action Plan are to: 1) tell success stories of EPA sustainability work through videos to educate and empower all EPA staff to incorporate sustainability principles into their work; 2) continue improvement of sustainability considerations in facilities management; 3) Enhance use of sustainability indicators, metrics and tools.

Beginning in February and continuing to the present, the Agency has made significant progress identifying cross-program priority areas and leveraging opportunities, goals, lessons learned, and activities key to integrating sustainability in four priority areas. The four areas are identified priorities that each have a number of specific projects managed by several EPA program offices and are used to communicate sustainability principles.

- For **green products**: multi-stakeholder systems for defining and rating green products and sustainable purchasing.
- For **green infrastructure**: stormwater management.
- For **sustainable materials management**: food systems and projects.
- For **energy efficiency**: measures to enhance electric system efficiency that can support the President’s Climate Action Plan.

To *engage and empower EPA staff*, the Agency has planned and implemented internal communications and knowledge management projects to help employees share knowledge and develop ideas that can lead to innovative programs. An internal EPA SharePoint site for community of practice work has been developed and is in use. EPA users can share a broad array of projects, information, case studies, and tools, thus reducing stovepiped communications and expanding the opportunities for ideas to flourish.

The EPA Regional Offices continue to collaborate and innovate in partnership with Headquarters program offices, and the Agency is investigating new opportunities for partnership *to expand the conversation on environmentalism with stakeholders* and identify more sustainable management of resources and the built environment. As one example, the Green Infrastructure Collaborative will build capacity for implementing green infrastructure through partnership between federal agencies, nonprofits, and the private sector.

Key FY 2014 Performance Results

Agency-Wide Staff Engagement via GreenSpark

Via an online ideation platform, staff from across the Agency shared 463 ideas on ways to conserve resources; reduce energy, water, and waste; and otherwise reduce the environmental footprint of EPA facilities, including actions to reduce their own environmental impact at work. Employees also “liked” their colleagues’ ideas 5,024 times and commented on those ideas 417 times.

The ideas submitted by staff were evaluated for cost, feasibility, and popularity. The previous Deputy Administrator announced follow-up activities for the selected ideas, which are being implemented at Headquarters and across the Agency:

- To increase paperless correspondence, the Office of the Executive Secretariat developed an electronic letterhead and is exploring a more toner-efficient font. They are also exploring how to improve the use of the agency’s Correspondence Management System for electronic document concurrence to increase paperless correspondence. The Office of Environmental Information is working to reduce the number of fax machines and install e-fax where needed.
- A composting program has been launched throughout the Headquarters William Jefferson Clinton (WJC) buildings to collect paper towel and food waste in pantries and restrooms.
- Filtered water dispensers will be installed throughout the WJC buildings in FY 2015 to encourage the use of reusable water bottles and decrease waste from disposable water bottles.
- Improvements have been made to WJC building bike facilities.

Regional submissions were also reviewed and are being implemented by staff in those locations.

Green Infrastructure Collaborative

The Green Infrastructure Collaborative consists of more than 20 organizations committed to advancing the adoption of green infrastructure as a means of supporting water quality and community development goals. This broad group of signatories includes academia, non-governmental organizations, and the private sector.

On October 8, 2014, EPA joined the Green Infrastructure Collaborative, along with six other federal agencies. These agencies signed a [Federal Letter of Support](#) committing to specific actions to promote green infrastructure. The cooperating agencies are EPA, the Department of Housing and Urban Development, the Department of Transportation, the Department of Agriculture, the

Department of the Interior, the Department of Defense, and the Department of Energy. Over the coming year, Collaborative members will work closely together to align public and private knowledge and resources to promote green infrastructure.

In the letter of support, each of the seven participating federal agencies identified specific actions that each agency can take to help local communities more fully realize their green infrastructure objectives. Example actions include:

- Providing technical assistance to provide on-the-ground support aimed at creating integrated green stormwater management and hazard mitigation plans.
- Recognizing innovative green infrastructure projects.
- Working with states to integrate ecosystems and transportation planning.
- Incorporating green infrastructure practices into agency facilities or lands.
- Emphasizing connections to green infrastructure in existing grant programs.
- Distilling and broadly disseminating the best ideas and lessons learned from existing grant programs.

Performance Challenges

Encouraging Knowledge Management in the New Community of Practice

Coordinating agencywide actions through the development and installation of the community of practice SharePoint site is challenging in that populating the site with the appropriate information from the vast set of EPA sustainability information takes time. The new community of practice site for EPA management and staff working on sustainability activities will require continued “championing” and “upstart” time to broadcast internally its existence before full benefits and regular use are achieved.

EPA is working to get more employees visiting, learning, and discussing in the SharePoint site by populating the site with useful information and encouraging regular users to tag topics and mention their colleagues to draw them to the site.

WORKING TO MAKE A VISIBLE DIFFERENCE IN COMMUNITIES.

Align community-based activities to provide seamless assistance to communities, both urban and rural, while maximizing efficiency and results. Expand support of community efforts to build healthy, sustainable, green neighborhoods and reduce and prevent harmful exposures and health risks to children and underserved, overburdened communities.

While EPA efforts have a direct, positive impact on the health and environmental quality of communities, EPA will place additional focus on changing the way we work so that communities can easily identify and achieve their full potential. EPA promotes the idea that environmental progress can be better supported, demonstrated, and measured in communities—especially those with environmental justice (EJ) concerns—so that all equally receive the benefits of human health and environmental protection standards. Millions of minority, low-income, tribal, and indigenous individuals are at risk of having poor health outcomes because they live in underserved, overburdened communities. EPA can make a greater and more visible difference by embracing strategies that incorporate an Agency-wide focus on communities. Specifically, EPA will rely on a variety of approaches, including improved meaningful outreach to communities, better internal alignment and coordination of resources across community-based programs, increased incorporation of EPA community-focused approaches and analyses within regulatory and enforcement actions, and expanded technical assistance and research to improve public health and the environmental performance of communities. Partnering with federal, state, and local governments, as well as other entities, is key to cultivating healthy and sustainable neighborhood solutions that reflect effective land use, green development, and social and economic growth.

Summary of Progress

In FY 2014, EPA made significant progress under the community cross-agency strategy to make a visible difference in communities. A key component of the FY 2014 success was the ability of its newly created Agency-wide executive-level body (the Community Facilitation Team) to harmonize various Agency community-based efforts under one umbrella. Through the team, EPA was able to strengthen its “community of practice” through improvements to online tools such as EPA’s Agency-wide project mapping platform called GeoPlatform and the Agency’s internal community practitioner collaboration software tool using SharePoint. The GeoPlatform improvements have contributed to increased cross-office use of GeoPlatform for coordination and strategic planning purposes. The SharePoint site is now actively being used by staff implementing the Administrator’s FY 2015 community cross-cutting strategy action plan.

EPA made significant progress toward a public release of its online EJSCREEN environmental justice mapping and screening tool. In 2015, EPA will launch a single Internet landing page for community stakeholders, including local governments, and make progress toward making EPA resources more easily accessible and navigable for community stakeholders.

EPA now actively seeks to leverage the presence of resources from other Federal agencies for work in communities: coordination with the Department of Housing and Urban Development (HUD), the Department of Transportation (DOT), the Department of Agriculture (USDA), and other agencies increased in FY 2014. EPA provided comments to HUD on its most recent community block grants evaluation criteria; EPA participated directly in HUD and DOT grant

application reviews; EPA worked in partnership with USDA, the Appalachian Regional Commission, and CDC to launch the Local Food/Local Places initiative.

Key FY 2015 goals:

- EPA will seek to work in partnership with other federal agencies in 3-5 communities in each of EPA's 10 regions. The specific agency involved will depend on the nature of the problems each community is seeking to address.
- EPA will launch a single internet landing page for community stakeholders, including local governments.
- EPA will seek to incorporate the use of monitoring tools (e.g., air or water monitors) into negotiated enforcement settlements or EPA-issued permits in 1-2 environmentally overburdened communities per region.

Key FY 2014 Performance Results

The action plan developed for the first year of this five-year strategy has helped EPA identify key activities that promote a more complete and coordinated way to provide information, financial and technical resources, and services to communities; more effectively educate and inform Agency staff; and assist disadvantaged and EJ communities. EPA is learning and understanding what its programs and offices do to help communities and how their work and activities can contribute to coordinated community-based approaches needed to address environmental challenges.

GeoPlatform

GeoPlatform provides a common platform for mapping EPA investments and activities; it supports rapid deployment of public map views, as well as advanced applications such as EPA's EJSCREEN and NEPAassist. Many EPA program offices are using GeoPlatform, including to map community-level grants and technical assistance projects. The program has made minor improvements to improve end-user access and usability. Additional training has been made available to project-level staff on GeoPlatform.

EPA improved staff usability of GeoPlatform, resulting in an increase in users of over 1,300 (a 50 percent increase in overall usage). It now hosts 48 programmatic geospatial tools. The Agency conducted outreach and training on GeoGrants, an advanced application that is supported by GeoPlatform, to improve project officer utilization of the tool to map place of performance.

Community SharePoint Site

In July, 2014, EPA transitioned to SharePoint as the Agency-wide collaboration tool for all EPA staff. Concurrently, the OSWER community SharePoint pilot site has been scaled up for Agency-wide use supporting regional and program office staff implementing Task 1 of the community cross-agency strategy. Those staff now have access to the SharePoint site and are receiving SharePoint training.

The OSWER Community SharePoint site was expanded into an interactive platform for all EPA staff to connect with each other across programs and Regions—to exchange information, discuss issues in real time, and quickly identify community experts, training, and other useful resources.

Leveraging of Federal Resources

EPA has been working closely with its federal partners to better coordinate community work:

- EPA is providing significant input to HUD’s Notice of Funding Availability for the Community Development Block Grant Disaster Recovery Funds.
- HUD/DOT/USDA are participating in EPA high-level strategy meetings to support implementation of Task 1.

Performance Challenges

Coordinating Actions Needed for Development and Installation of New Agency IT Systems

EPA is implementing several IT systems such as SharePoint, GeoPlatform, and broader internal use of EJSCREEN. Each of these systems poses technical challenges, end-user training needs, and a need to update Agency-wide policies for program and Regional Offices.

While implementation of new IT systems has its share of challenges, EPA has successfully addressed many implementation challenges, with SharePoint now being actively and increasingly used by EPA staff, GeoPlatform already widely used, and an improved version of EJSCREEN soon to be available publicly. The Agency continues to provide for staff training, technical support, and peer sharing groups to help end users integrate these tools into their programmatic operations.

Culture Change

A significant challenge for making “community” a framework for how EPA delivers its services is overcoming traditional stovepipe operations that do not necessarily promote more coordinated approaches, though they make more sense from the community perspective. To help overcome bureaucratic inertia, EPA is using key tools such as improved peer sharing through SharePoint, innovation discussions through EPA’s GreenSpark, more cross-office community-based focus at the executive-management-level meetings, and geographically-focused efforts in which programs try out integrated approaches that leverage each other’s presence in communities.

Internal vs. External Communication

Improving both internal and external communications is key to improving coordination and more effectively working with communities. Internally, EPA is placing heavy emphasis on the use of SharePoint to promote staff peer sharing of best practices, and help staff link with resources and knowledge experts on issues relevant to their projects or communities. Externally, EPA is developing a “community” site or “landing page” that lets community activists and local officials navigate quickly to a variety of information on resources, technical assistance, and other subjects that can empower them in addressing issues affecting their overburdened, underserved communities. EPA is working to reconcile these competing demands—internally teaching employees how to more effectively serve communities and externally educating the public about EPA services and ensuring that the work makes a visible difference in their lives.

LAUNCHING A NEW ERA OF STATE, TRIBAL, LOCAL, AND INTERNATIONAL PARTNERSHIPS.

Strengthen partnerships with states, tribes, local governments, and the global community that are central to the success of the national environmental protection program through consultation, collaboration, and shared accountability. Modernize the EPA–state relationship, including revitalizing the National Environmental Performance Partnership System and jointly pursuing E-Enterprise, a transformative approach to make environmental information and data more accessible, efficient, and evidence-based through advances in monitoring, reporting, and information technology.

The practice of good government, as well as the reality of limited resources, means that EPA works in concert with its partners to improve coordination, promote innovation, and maximize efficiencies to ensure its continued success. Successful partnerships will be based on four working principles: consultation, collaboration, cooperation, and accountability. By *consulting*, EPA will engage its partners in a timely fashion as it considers approaches to its environmental work, so that each partner can make an early and meaningful contribution toward the final result. By *collaborating*, EPA will not only share information, but actively work with partners to develop innovative approaches that use and leverage all available resources to achieve its environmental and human health goals. As this work progresses, EPA and its partners will *cooperate*, viewing each other with respect as allies who must work together if their goals are to be achieved. Through shared *accountability*, EPA will ensure that environmental benefits are consistently delivered nationwide.

Summary of Progress

Working with states, tribes, local governments, and the international community, EPA completed a suite of activities to:

- Ensure frequent and meaningful consultations with intergovernmental partners on key regulations and policies through Federalism consultations with the “Big 10” intergovernmental associations required by Executive Order 13132, as well as through additional EPA outreach initiatives to reach intergovernmental partners for rules and policies not triggered by the Federalism executive order.
- Revitalize the National Environmental Performance Partnership System, the cornerstone of EPA’s working relationship with states and many tribes.
- Improve the effectiveness and efficiency of state-federal interactions in overseeing state-delegated programs.
- Facilitate dialogue between members of the National Tribal Caucus and Environmental Council of the States (ECOS) executives regarding ECOS’ relationship with tribal governments.
- Improve the coordination and implementation of the Agency’s Tribal Consultation Policy.
- Support U.S. efforts to become first country to join the Minamata Convention treaty to protect human health and the environment from the adverse effects of mercury.
- Implement priority actions to support the agreements reached at the United Nations Conference on Sustainable Development in 2012.

EPA’s FY 2015 partnership goals and activities:

- Continue consultation and outreach to state and local partners on regulations for the New Source Performance Standards for Greenhouse Gases, Waters of the U.S., and chemical facility safety; and improve the implementation of the Agency's tribal consultation policy through enhanced communication tools, training, and outreach.
- Implement additional improvements and recognize the 20th anniversary of the National Environmental Performance Partnership System and its role as a platform to revitalize EPA's working relationship with states.
- Advance E-Enterprise by taking steps to embed E-Enterprise principles in EPA-state work processes.
- Implement EPA's tribal identification data standard to help ensure the quality and consistency of EPA data and enhance our ability to exchange tribal information across the federal government.
- Strengthen EPA partnerships with the Canadian and Mexican governments to improve policies and implement cooperative projects that address climate change.

Key FY 2014 Performance Results

Consultations with State and Local Elected Officials on EPA Rulemakings, Guidance, and Policies

The Agency broadened federalism consultations to include other intergovernmental organizations and state and local officials - such as the Local Government Advisory Committee, the National Association of State Departments of Agriculture, the National Association of State Conservation Agencies, and the Association of State and Territorial Health Officials. National Program Managers (NPMs) and Regional Offices conducted additional outreach with intergovernmental partners on the New Source Performance Standards for Greenhouse Gases from existing Electricity Generating Units, Waters of the U.S., climate resilience, sustainability, and chemical facility safety. For example, EPA Region 7 provided chemical facility safety outreach to agriculture associations and emergency planners in 24 venues, reaching over 5,000 in the regulated community. In addition EPA continued collaborations with ECOS (begun in FY 2013) to ensure strong EPA-state engagement around Civil Rights Act Title VI grant management programs.

National Environmental Performance Partnership System

EPA collaborated with states and tribes to design a new NPM guidance process to shift from an annual to a two-year cycle that focuses on 1) establishing earlier and more meaningful engagement with states and tribes in the development of national priorities and 2) enhancing the flexibility provided to EPA Regions, states, and tribes.

Oversight of State-Delegated Programs

EPA assessed ongoing initiatives and near- and long-term ideas for improving the oversight process for NPDES, Title V, and RCRA Subtitle C permitting programs. Through discussions on advances and innovations in program management and oversight, EPA identified draft principles for effective oversight that will inform FY 2015 discussions with states. To continue improving its

ongoing oversight of state enforcement programs, EPA, in partnership with states, implemented the State Review Framework Round 3 efficiencies identified in FY 2013 and began a dialogue about the future direction of environmental enforcement oversight.

Government-Wide Collaboration with Tribal Partners

EPA established and Co-Chairs the Climate Change Subgroup of the White House Council on Native American Affairs. The Subgroup identified proposed pilots to further federal interagency cooperation and support working with tribal partners.

EPA also improved implementation of the Policy on Consultation and Coordination with Indian Tribes by conducting training across all NPMs and EPA Regions about how to implement the policy.

Provide EPA Leadership and Support to Strengthen International Collaborations

EPA finalized the U.S. position for the contents of a voluntary agreement on black carbon under the Arctic Council, which will be implemented during the U.S. Chairmanship of the Council in 2015; EPA also implemented a project on black carbon best practices with other Arctic Council countries.

EPA continued to build on the agreements reached at the United Nations Conference on Sustainable Development (Rio+20) in 2012 by implementing priority actions in support of the Ten-Year Framework of Programs on Sustainable Consumption and Production. Key accomplishments included hosting the first global practitioners' workshop on building an international partnership to improve life-cycle assessment and helping complete the Global Sustainable and Production Clearinghouse.

EPA worked with the Office of the U.S. Trade Representative on environmental aspects of trade policy, and with the Department of Treasury on the environmental impacts of multilateral development bank investments.

Performance Challenges

Oversight of State-Delegated Programs

- **Realizing the benefits of streamlining the State Review Framework.** Because of variability in regional organizational structures and in regional-state approaches to Framework review implementation, efficiency gains from Framework streamlining may not be fully realized in some instances.
- **Balancing consistency with flexibility.** An ongoing challenge is defining the appropriate balance between a nationally consistent baseline for state performance and the flexible approach needed to achieve environmental protection.
- **State Resources and Data Quality.** Resources are an increasing challenge for states seeking to attain program objectives and for EPA seeking to conduct appropriate oversight.

The completeness/quality of required state performance data is a challenge for conducting oversight and for using data to conduct oversight more efficiently.

International—Addressing Black Carbon in Arctic Countries

Methods for measuring black carbon emissions are evolving and may delay agreement on how to characterize project outcomes.

EMBRACING EPA AS A HIGH-PERFORMING ORGANIZATION.

Maintain and attract EPA's diverse and engaged workforce of the future with a more collaborative work environment. Modernize our business practices, including through E-Enterprise, and take advantage of new tools and technologies. Improve the way we work as a high-performing Agency by ensuring we add value in every transaction with our workforce, our co-regulators, our partners, industry, and the people we serve.

As today's environmental challenges and solutions continue to increase in complexity, EPA's ability to respond creatively, flexibly, and effectively will demand that we embrace the latest approaches to problem-solving and the use of new tools and technologies. Toward this end, EPA is striving to be a high-performing organization (HPO) characterized by business practices that are modern, efficient, and cost effective, as well as a work environment that supports employee growth and development, is collaborative and is results driven. Becoming a high-performing organization will require that we actively engage and consult with external partners, as well as EPA employees, as we advance new tools and streamline approaches.

Summary of Progress

In FY 2014, EPA focused on fostering employee development and streamlining business practices. EPA is making steady progress to become a High- Performing Organization (HPO), as evidenced by key accomplishments in FY 2014: successfully launching Skills Marketplace, GreenSpark, and SharePoint to increase employee engagement and collaboration; piloting new workplace designs and reducing our environmental footprint; applying Lean techniques to streamline our business processes; and implementing new strategic sourcing approaches to achieve efficiencies and economies in our acquisition programs.

In FY 2015, the agency will continue to focus efforts on developing employees and streamlining and modernizing business processes as described in EPA's HPO FY 2015 Cross-Agency Strategies Action Plan, available at <http://workplace.epa.gov/realizingoneepa/pdf/hpo-action-plan-fy15.pdf>. New efforts in FY 2015 include: launching a succession management pilot to ensure a pool of talent for critical positions to advance EPA's mission; identifying best practices and establishing processes for assessing agency efforts to enhance employee inclusion and engagement; and, developing a training catalogue focused on enhance the supervisory development curriculum for new and aspiring leaders.

Key FY 2014 Performance Results

Launched One EPA Skills Marketplace Program

In FY 2014, EPA successfully launched the One EPA Skills Marketplace Program, a voluntary program that expands employee professional development and provides a nimble, innovative way to get our work done by enabling employees to participate in projects or tasks outside of their office unit for up to 20 percent of their time. The program bolsters career development opportunities for the workforce and increases employee knowledge and experience.

Prior to launching this program, EPA completed a pilot phase of the program in FY 2014 during which 60 projects were completed and 92 employees participated. Following the pilot, the agency offered 40 opportunities to support high-priority activities under the FY 2014 Action Plans for EPA's Cross-Agency Strategies; employees embraced this opportunity – over 100 applications for these limited assignments were submitted. Since the launch of the full-scale program, 155 projects have been posted, 199 applications have been submitted, and 30 employees have already started working on projects.

Redesigned, Sustainable Workplace

EPA is committed to managing its facilities with a focus on sustainability. In FY 2014, the agency redesigned and consolidated office space, particularly within buildings where leases were expiring, to reduce our environmental footprint.

Over 1,000 employees moved to new working spaces, which required focused, fast-paced collaboration within the agency to effectively plan, design, and implement the move. EPA released all its space at one of its Washington, D.C.-based facilities, 1310 L Street, and relocated 450 employees to the nearby Federal Triangle Complex (FTC). Through consolidation, EPA reduced its office space by 135,901 square feet, saving the agency an estimated \$7 million in annual rent expenditures and additional savings of \$1.5 million associated with costs for security, parking, shuttle service, fitness center, and the health unit. As the Agency reduces its physical footprint, it also reduces its environmental footprint, achieving on-going reductions in energy use, water use, waste generation, and greenhouse gas emissions.

Strategic

Sourcing

EPA has made noteworthy progress on finding and maximizing efficiencies and economies in the Agency's acquisition programs. In FY 2014, EPA applied the lessons learned from a collaborative, structured process of critically analyzing EPA's spending on an agency-wide basis and used this information to make business decisions about acquiring commodities and services more effectively and efficiently. The Agency began to track and measure savings and efficiencies from implementing strategic sourcing for cellular service and print management. These efforts led to cost savings of \$1.7 million and laid the groundwork for additional savings through upcoming negotiations with service providers.

Performance

Challenges

Implementation Delays

There have been implementation delays of some of the key tools and technologies used to enhance communication, transparency, and cooperative problem solving. For example, Microsoft SharePoint, a collaborative software tool, was launched later in the year than expected, causing a ripple effect on projects depending on its availability, such as GreenSpark, a tool designed to give the EPA workforce a platform for sharing innovative activities, best practices, insights, and ideas to help make EPA stronger, more effective, and a great place to work.

A

Acquisition Management 202, 431, 432, 589, 651, 652, 699, 707, 1040, 1042, 1043, 1056
Administrative Law 201, 392, 393, 640, 1039
Administrative Provisions 1055
Air Toxics 261
Air Toxics Monitoring 233, 798
Alaska Native Villages 822
Alternative Dispute Resolution 201, 393, 394, 397, 398, 589, 639, 1039, 1042
American Recovery and Reinvestment Act 1018
Analytical Methods 128, 622
Annual Performance Report 896
Audits, Evaluations, and Investigations 567, 569, 588, 595, 598, 1041

B

Base Realignment and Closure (BRAC) 681, 976
Beach / Fish Programs 203, 516, 1040
BRAC 681, 976
Brownfields ii, 44, 46, 47, 48, 53, 200, 243, 244, 245, 246, 247, 248, 249, 265, 271, 309, 404, 505, 572, 670, 754, 759, 760, 761, 830, 831, 832, 833, 834, 835, 891, 892, 970, 974, 1001, 1002, 1018, 1022, 1029, 1038, 1044, 1055, 1056
Brownfields Projects 248, 754, 760, 830, 834, 1044, 1055

C

CA Emission Reduction Project Grants 836
CASTNET 90, 92, 207
Categorical Grant
 Beaches Protection 755, 757, 1045
 Brownfields 755, 759, 1045
 Environmental Information 755, 764, 1045
 Hazardous Waste Financial Assistance 755, 768, 1044
 Lead 755, 762, 1044
 Nonpoint Source (Sec. 319) 754, 773, 1044
 Pesticides Enforcement 755, 777, 1044
 Pesticides Program Implementation 755, 779, 1044
 Pollution Control (Sec. 106) 755, 783, 1044
 Pollution Prevention 755, 788, 1044
 Public Water System Supervision 755, 790, 1044
 Radon 755, 794, 1044
 State and Local Air Quality Management 755, 796, 1044
 Toxics Substances Compliance 755, 800, 1044
 Tribal Air Quality Management 755, 802, 1045
 Tribal General Assistance Program 755, 804, 1045
 Underground Injection Control 755, 807, 1044
 Underground Storage Tanks 755, 810, 1045
 Wetlands Program Development 755, 813, 1044
Categorical Grants .. 491, 754, 755, 756, 757, 759, 762, 763, 764, 768, 773, 777, 779, 783, 788, 790, 794, 796, 800, 802, 804, 807, 810, 813, 1044, 1045
Central Planning, Budgeting, and Finance 202, 428, 589, 656, 699, 708, 1040, 1042, 1043, 1058
Chemical and Pesticide Risks 980
Chesapeake Bay 27, 37, 38, 76, 80, 262, 288, 289, 290, 291, 572, 870, 884, 963, 964, 965, 966, 1000, 1062
Children/Other Sensitive Populations
 Agency Coordination 201, 334, 1039, 1056
Civil Enforcement .. 79, 80, 116, 200, 251, 259, 261, 263, 264, 268, 601, 616, 699, 702, 703, 730, 732, 735, 736, 987, 1038, 1043, 1056
Civil Rights / Title VI Compliance 201, 396, 1039, 1056

Clean Air	63, 236, 240, 261, 276, 422
Clean Air Allowance Trading Programs	85, 89, 199, 205, 1036, 1037, 1056
Clean Air and Climate	85, 88, 89, 94, 96, 98, 199, 204, 205, 210, 220, 225, 236, 240, 1036, 1037
Clean Water	35, 261, 509, 536, 537, 540, 546, 623, 783, 816, 958
Cleaning Up Communities and Advancing Sustainable Development	7, 9, 42, 43, 169, 176, 244, 270, 318, 338, 356, 365, 370, 403, 408, 413, 465, 471, 476, 502, 604, 619, 642, 660, 669, 674, 677, 683, 711, 716, 720, 727, 739, 748, 759, 768, 804, 810, 830, 846, 925
Climate Protection Program	85, 94, 95, 199, 210, 213, 1036, 1037, 1056
Commission for Environmental Cooperation	147, 379, 947, 948, 988
Communities	vi, 19, 28, 29, 42, 46, 47, 49, 50, 75, 76, 78, 97, 143, 168, 169, 176, 244, 270, 271, 272, 274, 308, 318, 336, 338, 356, 370, 387, 413, 414, 415, 416, 417, 536, 537, 547, 589, 604, 642, 659, 660, 700, 726, 727, 730, 747, 748, 759, 830, 891, 892, 954, 970, 971, 992, 1022, 1042, 1043, 1044
Compliance	8, 10, 71, 72, 73, 74, 75, 77, 78, 82, 94, 116, 200, 231, 250, 251, 252, 253, 254, 256, 259, 260, 261, 263, 265, 266, 278, 290, 329, 351, 363, 396, 398, 422, 435, 588, 600, 601, 602, 606, 610, 611, 613, 616, 649, 677, 678, 702, 730, 731, 732, 733, 735, 765, 777, 786, 800, 801, 921, 954, 987, 988, 989, 1014, 1022, 1023, 1029, 1032, 1038, 1041, 1043, 1056
Compliance Monitoring	77, 78, 200, 251, 588, 601, 602, 730, 732, 733, 777, 786, 800, 801, 1038, 1041, 1043, 1056
Computational Toxicology	86, 177, 482, 915, 1037
Congressional Priorities	87, 193, 203, 565, 755, 1037, 1041, 1045
Congressionally Mandated Projects	755, 1045
Consolidations, Realignments, or Other Transfers of Resources	1058
Corrective Action	474, 977
Criminal Enforcement	81, 200, 266, 267, 268, 589, 613, 614, 615, 927, 987, 1038, 1041, 1056

D

Decontamination	124, 127, 128, 621
Diesel Emissions Reduction Grant Program	754, 836, 1044
Discontinued Programs	1046
Drinking Water	190, 518, 519, 521, 609, 790, 807, 820
Drinking Water Programs	87, 189, 203, 518, 817, 823, 1037, 1041, 1056, 1058

E

Ecosystem Protection	962
Ecosystems	26, 33, 35, 90, 160, 170, 193, 203, 207, 280, 288, 293, 295, 296, 302, 306, 309, 313, 316, 318, 323, 401, 507, 510, 531, 536, 552, 565, 683, 773, 783, 813, 816, 826, 838, 866, 915, 956, 966, 1040
E-Enterprise	iii, viii, 51, 74, 75, 76, 78, 80, 231, 232, 235, 252, 253, 256, 261, 345, 346, 349, 386, 389, 419, 487, 520, 764, 765, 766, 767, 846, 847, 1033
El Paso	371
Electronic Reporting	73, 77, 231, 253, 261, 263, 346, 349, 362, 766
eManifest	572, 574, 598
E-Manifest	51, 843, 844, 846
Endocrine Disruptors	86, 202, 482, 1037, 1040
Enforcement	74, 75, 76, 77, 78, 79, 80, 81, 82, 86, 115, 116, 117, 200, 251, 252, 253, 254, 255, 256, 258, 259, 260, 261, 262, 263, 264, 266, 267, 268, 270, 276, 292, 350, 351, 352, 363, 418, 572, 589, 601, 602, 603, 604, 606, 607, 608, 609, 610, 611, 613, 614, 616, 617, 678, 686, 699, 701, 702, 713, 730, 732, 734, 735, 749, 777, 786, 801, 921, 981, 987, 988, 989, 992, 1022, 1032, 1036, 1038, 1041, 1042, 1043
Enforcement Training	255, 266, 613, 988, 992
Enforcing Environmental Laws	403, 408, 642, 987
Ensuring the Safety of Chemicals and Preventing Pollution	7, 10, 61, 62, 126, 142, 145, 149, 276, 334, 350, 362, 373, 377, 403, 408, 441, 448, 457, 462, 482, 485, 491, 497, 619, 642, 665, 762, 779, 788, 927, 980, 1047
Environmental Education	174, 193, 201, 301, 307, 338, 339, 340, 341, 343, 1039
Environmental Information	993
Environmental Justice	14, 46, 49, 62, 72, 80, 200, 264, 270, 271, 273, 275, 276, 394, 572, 589, 597, 604, 605, 639, 971, 1038, 1042, 1056
EPA User Fee Program	1013

Exchange Network 201, 345, 346, 348, 349, 389, 589, 627, 628, 629, 636, 764, 765, 766, 767, 994, 995, 996, 1033, 1039, 1042, 1056, 1058

F

Facilities Infrastructure and Operations.....86, 139, 140, 202, 332, 425, 577, 582, 585, 589, 645, 646, 699, 705, 730, 745, 1016, 1036, 1040, 1041, 1042, 1043, 1044
Federal Stationary Source Regulations..... 104, 199, 220, 1037, 1056
Federal Support for Air Quality Management..... 85, 96, 97, 199, 225, 226, 803, 837, 1036, 1037, 1056, 1057
Federal Vehicle and Fuels Standards and Certification 85, 94, 98, 1036
Forensics Support 81, 86, 116, 589, 616, 1036, 1042

G

General Counsel 132, 135, 139, 326, 331, 341, 345, 353, 382, 385, 392, 394, 396, 401, 403, 407, 410, 418, 422, 425, 428, 431, 434, 437, 569, 579, 582, 595, 624, 627, 631, 634, 639, 640, 641, 645, 648, 651, 654, 656, 705, 707, 708, 745, 764
Geographic Program
Chesapeake Bay200, 288, 1038
Gulf of Mexico.....200, 306, 1038
Lake Champlain.....200, 313, 1038
Long Island Sound200, 302, 1038
Geographic Programs 200, 279, 280, 288, 293, 296, 302, 306, 309, 313, 318, 963, 1038
Goal 113, 17, 19, 403, 404, 408, 642, 851, 856, 857, 859, 918, 943, 1023, 1024, 1025
Goal 2 27, 28, 29, 403, 404, 408, 642, 863, 952, 1026, 1027, 1028
Goal 343, 45, 46, 47, 403, 404, 405, 408, 642, 676, 681, 692, 847, 891, 970, 1028, 1029, 1035
Goal 4 62, 63, 403, 405, 408, 642, 905, 980, 1030, 1031, 1034
Goal 5 72, 75, 77, 403, 408, 642, 921, 987, 1032
Great Lakes509, 963
Great Lakes Legacy Act.....282

H

Hazardous Waste Electronic Manifest System Fund 3, 4, 7, 10, 465, 844, 846, 847, 1045
Hazardous Waste Financial Assistance768, 769
Homeland Security40, 56, 69, 70, 86, 114, 118, 119, 120, 121, 126, 128, 129, 130, 132, 200, 201, 239, 325, 326, 327, 328, 329, 331, 332, 348, 357, 383, 562, 563, 577, 578, 579, 580, 585, 589, 618, 619, 620, 621, 622, 624, 632, 670, 674, 706, 931, 950, 952, 955, 965, 967, 972, 977, 982, 985, 988, 995, 1036, 1038, 1039, 1041, 1042
Communication and Information200, 326, 1038
Critical Infrastructure Protection 86, 119, 201, 329, 1036, 1038
Preparedness, Response, and Recovery 86, 126, 589, 619, 622, 1036, 1042
Protection of EPA Personnel and Infrastructure 86, 132, 201, 331, 577, 579, 589, 624, 1036, 1038, 1041, 1042
Human Health..8, 10, 42, 47, 57, 69, 70, 71, 72, 86, 116, 153, 177, 182, 186, 251, 259, 266, 329, 365, 538, 590, 601, 606, 610, 613, 616, 665, 684, 702, 732, 735, 777, 800, 804, 902, 932, 978, 1037, 1042
Human Health Risk Assessment..... 69, 70, 86, 153, 177, 182, 186, 590, 665, 932, 1037, 1042
Human Resources Management 202, 437, 438, 589, 654, 1040, 1042, 1056

I

Improve Human Health and the Environment in Indian Country.....902
Indoor Air22, 85, 106, 107, 108, 109, 111, 113, 200, 554, 555, 556, 557, 558, 560, 562, 588, 591, 592, 794, 795, 859, 948, 949, 1036, 1037, 1038, 1041
Radon Program 85, 107, 200, 555, 1036, 1037
Indoor Air and Radiation85, 106, 107, 109, 111, 113, 200, 554, 555, 557, 560, 562, 588, 591, 592, 1036, 1037, 1038, 1041
Information Exchange / Outreach.....201, 333, 334, 338, 341, 345, 350, 353, 356, 362, 365, 589, 626, 627, 1039, 1042
Information Security..136, 201, 326, 349, 382, 383, 384, 390, 569, 570, 571, 572, 574, 589, 598, 628, 631, 632, 633, 637, 1010, 1020, 1039, 1042
Infrastructure Assistance 371, 754, 816, 820, 826, 838, 1044

Alaska Native Villages.....	754, 826, 1044
Clean Water SRF	754, 816, 1044
Drinking Water SRF	754, 820, 1044
Mexico Border.....	754, 838, 1044
Inspector General.....	3, 4, 7, 8, 9, 10, 11, 132, 135, 139, 299, 326, 331, 341, 345, 353, 382, 385, 392, 394, 396, 401, 407, 409, 410, 418, 422, 425, 428, 430, 431, 434, 437, 566, 567, 569, 570, 574, 575, 579, 582, 595, 596, 598, 599, 609, 624, 627, 631, 634, 639, 641, 645, 648, 651, 654, 656, 658, 705, 707, 708, 745, 764, 805, 992, 996, 998, 1021, 1041
Integrated Environmental Strategies.....	201, 413, 1039, 1056
International Programs.....	201, 369, 370, 373, 377, 1039
International Sources of Pollution.....	201, 373, 1039, 1056
IT / Data Management.....	86, 134, 135, 201, 381, 382, 385, 589, 630, 631, 634, 1036, 1039, 1042, 1056
IT / Data Management / Security.....	86, 134, 135, 201, 381, 382, 385, 589, 630, 631, 634, 1036, 1039, 1042

L

Lake Champlain	509
Lake Pontchartrain.....	200, 319, 320, 322, 324, 1038
Lead.....	269, 984
Legal / Science / Regulatory / Economic Review.....	201, 202, 391, 392, 394, 396, 401, 407, 410, 413, 418, 422, 589, 638, 639, 641, 1039, 1042
Legal Advice	
Environmental Program.....	201, 401, 589, 641, 1039, 1042, 1056
Support Program	201, 407, 1039, 1056
Libraries.....	635
Long Island Sound.....	302, 305, 969
LUST / UST.....	203, 502, 699, 711, 1040, 1043, 1056
LUST Cooperative Agreements	53, 699, 714, 716, 1043
LUST Prevention.....	52, 505, 699, 712, 717, 720, 812, 1043

M

Major Management Challenges	998
Marine Pollution	203, 531, 960, 1041, 1056
Mercury and Air Toxics Standards.....	91, 403
Mexico Border	257, 265, 344, 371, 439, 469, 547, 602, 838, 839, 840, 889, 972, 973, 1021
Mississippi River Basin	40, 308, 508, 885, 886
Monitoring Grants	755, 1044

N

Nanotechnology.....	179, 181, 985
National Estuary Program / Coastal Waterways	203, 507, 1040
NEPA Implementation.....	200, 276, 1038, 1057

O

OECA	73, 77, 253, 261, 263, 732, 924, 925
Office of Administration and Resource Management	132, 135, 139, 326, 331, 341, 345, 353, 382, 385, 392, 394, 396, 401, 407, 410, 418, 422, 425, 428, 431, 434, 437, 569, 579, 582, 595, 624, 627, 631, 634, 639, 641, 645, 648, 651, 654, 656, 705, 707, 708, 745, 764, 936, 992, 993
Office of Air and Radiation.....	1008
Office of Environmental Information.....	132, 135, 139, 326, 331, 341, 345, 353, 382, 385, 392, 394, 396, 401, 407, 410, 418, 422, 425, 428, 431, 434, 437, 569, 579, 582, 595, 624, 627, 631, 634, 639, 641, 645, 648, 651, 654, 656, 705, 707, 708, 745, 764, 993, 996, 1016
Office of General Counsel.....	132, 135, 139, 326, 331, 341, 345, 353, 382, 385, 392, 394, 396, 401, 403, 407, 408, 410, 418, 422, 425, 428, 431, 434, 437, 569, 579, 582, 595, 624, 627, 631, 634, 639, 641, 642, 645, 648, 651, 654, 656, 705, 707, 708, 745, 764
Office of Research and Development.....	164, 172, 177, 186, 571, 662, 667, 929, 930, 931, 932, 933, 935
Office of Solid Waste and Emergency Response	46, 52, 477, 661, 678, 732, 749

Office of the Chief Financial Officer	132, 135, 139, 326, 331, 341, 345, 353, 382, 385, 392, 394, 396, 401, 407, 410, 418, 422, 425, 428, 431, 434, 437, 524, 546, 569, 579, 582, 595, 624, 627, 631, 634, 639, 641, 645, 648, 651, 654, 656, 705, 707, 708, 745, 764, 991, 1016, 1053
Oil	3, 4, 7, 8, 10, 17, 24, 41, 56, 73, 91, 112, 113, 114, 126, 139, 162, 163, 166, 169, 170, 208, 251, 259, 306, 328, 401, 406, 409, 425, 427, 562, 563, 582, 585, 601, 623, 645, 647, 660, 670, 674, 702, 705, 727, 729, 730, 732, 733, 735, 736, 737, 738, 739, 740, 742, 743, 745, 748, 750, 925, 978, 1021, 1043, 1044
Oil Spill	
Prevention, Preparedness and Response	730, 739, 1043
OP	990, 991
Operations and Administration	86, 138, 139, 202, 424, 425, 428, 431, 434, 437, 577, 581, 582, 589, 644, 645, 648, 651, 654, 656, 699, 704, 705, 707, 708, 730, 744, 745, 1036, 1039, 1040, 1041, 1042, 1043, 1044

P

Performance

Eight-Year Array	851
Pesticides	
Realize the Value of Pesticide Availability	86, 149, 202, 457, 1036, 1040, 1057
Pesticides Licensing	86, 141, 142, 145, 149, 202, 440, 441, 448, 457, 462, 1036, 1037, 1040
Pollution Prevention	743
Pollution Prevention Program	202, 491, 851, 918, 919, 920, 1040, 1057
Preserve Land	42, 47, 50, 465, 476, 502, 669, 683, 711, 720, 768, 810, 846, 847, 893, 975
Program Projects by Program Area	1036
Protect Human Health	26, 30, 86, 119, 124, 142, 160, 189, 202, 329, 441, 516, 518, 565, 757, 781, 790, 807, 820, 863, 905, 952, 1036, 1040, 1057
Protect the Ozone Layer	12, 23, 236, 240, 861
Protecting America's Waters	27, 75, 403, 408, 642, 952
Puerto Rico	819
Puget Sound	37, 38, 200, 296, 297, 298, 299, 300, 301, 887, 888, 967, 968, 1038

R

Radiation	12, 24, 85, 107, 111, 112, 113, 114, 126, 129, 131, 200, 265, 560, 561, 562, 584, 588, 592, 593, 609, 703, 862, 951, 952, 1008, 1014, 1023, 1036, 1038, 1041, 1053
Protection	85, 111, 200, 560, 588, 592, 1036, 1038, 1041
Response Preparedness	85, 113, 200, 562, 1036, 1038
RCRA	
Corrective Action	202, 471, 1040, 1057
Waste Management	202, 465, 844, 846, 1040, 1045, 1057
Waste Minimization & Recycling	202, 476, 1040, 1057
Recovery Act	116, 117, 249, 255, 257, 262, 265, 269, 275, 290, 301, 410, 411, 412, 421, 430, 470, 475, 480, 493, 570, 602, 612, 658, 682, 703, 709, 728, 768, 772, 848, 965, 977, 1022
Reduce Greenhouse Gas Emissions	477
Reduce Risks from Indoor Air	85, 109, 200, 557, 1036, 1038, 1057
Regional Science and Technology	201, 410, 1039
Regions	126, 170, 426, 444, 525, 661, 672, 749, 870, 892, 894, 897, 898, 901, 933, 969, 976, 1000, 1001
Regulatory/Economic-Management and Analysis	202, 418, 1039, 1057
Research	
Air, Climate and Energy	86, 153, 1037
Chemical Safety and Sustainability	86, 87, 176, 182, 590, 665, 1037, 1042
Safe and Sustainable Water Resources	86, 160, 1037
Sustainable Communities	86, 169, 1037
Resource Conservation and Recovery Act (RCRA)	44, 79, 136, 202, 262, 328, 349, 390, 393, 401, 406, 464, 465, 470, 471, 475, 476, 480, 628, 637, 768, 844, 845, 846, 848, 899, 988, 1015, 1040, 1045
Restore Land	42, 47, 53, 471, 502, 619, 669, 674, 677, 683, 711, 716, 739, 768, 895, 976
Return on Investment	608

S

Safe and Sustainable Water Resources	40, 86, 159, 160, 165, 934, 1037
San Francisco Bay	200, 293, 294, 295, 967, 1038
Sandy Supplemental	3, 4, 8, 11, 1045
Science Advisory Board ..41, 130, 161, 162, 166, 172, 179, 182, 186, 202, 405, 419, 422, 522, 662, 990, 1007, 1039, 1057	
Science Policy and Biotechnology	202, 462, 463, 1040
Security....20, 48, 95, 100, 119, 121, 123, 125, 126, 128, 140, 216, 239, 326, 327, 328, 330, 331, 332, 334, 337, 349, 356, 361, 382, 383, 405, 430, 570, 572, 579, 580, 582, 585, 619, 629, 631, 632, 658, 674, 706, 709, 946, 949, 950, 951, 972, 973, 975, 981, 985, 987, 991, 1009, 1010, 1019, 1020	
Small Business Ombudsman	201, 350, 351, 1039
Small Minority Business Assistance.....	201, 353, 1039
Smart Growth	47, 49, 413, 414, 543
Special Accounts.....	607
Standards for Uranium and Thorium Mill Tailings	24, 561
State and Local Prevention and Preparedness	48, 201, 356, 1039, 1057
State and Tribal Assistance Grants (STAG)	x, 371, 491, 498, 754, 815, 816, 820, 826, 830, 836, 838, 842, 1044
Stratospheric Ozone	
Domestic Programs	199, 236, 1037
Multilateral Fund.....	199, 240, 1037
Superfund	
Emergency Response and Removal.....	590, 669, 1043
Enforcement.....	589, 606, 1042
EPA Emergency Preparedness	590, 674, 1043
Federal Facilities	590, 677, 1043
Federal Facilities Enforcement.....	589, 610, 989, 1042
Remedial	590, 683, 1043
Superfund Cleanup	53, 590, 668, 669, 674, 677, 683, 684, 1043
Surface Water Protection.....	203, 429, 508, 518, 524, 528, 536, 546, 550, 553, 787, 817, 823, 1041, 1057, 1058
Sustainable and Healthy Communities ..58, 86, 153, 169, 172, 177, 589, 660, 662, 665, 700, 727, 730, 748, 749, 930, 1037, 1042, 1043, 1044	

T

Taking Action on Climate Change and Improving Air Quality	403, 408, 642, 943
Targeted Airshed Grants.....	754, 842, 1044
Toxic Substances	
Chemical Risk Management.....	202, 1040
Chemical Risk Review and Reduction	202, 485, 1040, 1057
Lead Risk Reduction Program	202, 497, 1040, 1057
Toxics Risk Review and Prevention	202, 481, 482, 485, 491, 497, 1040, 1047
Trade and Governance	201, 377, 1039
TRI / Right to Know.....	201, 362, 1039, 1057
Tribal - Capacity Building.....	201, 365, 1039, 1057

U

Underground Storage Tanks	702
Underground Storage Tanks (LUST / UST).....	203, 501, 502, 699, 700, 710, 711, 716, 720, 1040, 1043
US Mexico Border.....	201, 257, 265, 344, 370, 371, 439, 469, 547, 602, 838, 839, 840, 889, 972, 973, 1021, 1039
Utilities	37, 120, 125, 823, 953, 955

W

Waste Management	975
Water	
Ecosystems.....	506
Human Health Protection.....	87, 188, 189, 203, 515, 516, 518, 1037, 1040, 1041

Water Quality	309, 310, 956, 963, 964
Water Quality Monitoring	309, 310, 959
Water Quality Protection	203, 309, 310, 311, 530, 531, 536, 541, 552, 1041
Water Quality Research and Support Grants	87, 193, 203, 565, 1037, 1041
Wetlands 28, 35, 161, 203, 287, 293, 309, 311, 317, 509, 510, 512, 513, 784, 814, 876, 877, 962, 1019, 1021, 1026, 1040, 1057	
Working Capital Fund.....	218, 234, 428, 708, 1016