

Environmental Protection Agency

FY 2003 Annual Performance Plan and Congressional Justification

Reduction of Global and Cross-border Environmental Risks

Strategic Goal: The United States will lead other nations in successful, multilateral efforts to reduce significant risks to human health and ecosystems from climate change, stratospheric ozone depletion and other hazards of international concern.

Resource Summary (Dollars in thousands)

	FY 2001 Actuals	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Reduction of Global and Cross-border Environmental Risks	\$304,287.5	\$276,588.0	\$269,727.2	(\$6,860.8)
Reduce Transboundary Threats to Human and Ecosystem Health in North America.	\$120,000.8	\$96,869.4	\$98,185.9	\$1,316.5
Reduce Greenhouse Gas Emissions.	\$149,610.2	\$145,293.6	\$136,953.4	(\$8,340.2)
Reduce Stratospheric Ozone Depletion.	\$18,989.4	\$15,843.2	\$15,813.3	(\$29.9)
Protect Public Health and Ecosystems from PBTs and other Toxics.	\$4,772.6	\$6,060.9	\$6,173.6	\$112.7
Increase Domestic and International Use of Cleaner and More Cost-Effective Technologies.	\$10,914.5	\$12,520.9	\$12,601.0	\$80.1
Total Workyears	549.7	517.7	504.7	-13.0

Background and Context

Many serious environmental risks transcend political boundaries. Consequently, protecting human health and the environment in the United States requires coordination and cooperation at a multinational level. Ecosystems, such as the Great Lakes, are essential to the health and welfare of U.S. citizens, are shared by neighboring countries, and can be preserved only through joint action. Other environmental risks-related to climate change, arctic environments, and biodiversity - are global in scope, and can affect the health and welfare of all those who live in the United States both directly and indirectly. These and other threats, unbounded by national borders, need to be addressed on an international scale.

International environmental management programs provide important political and economic benefits. A significant portion of EPA's international work fulfills legally binding treaties, conventions and other international statutory mandates. Sharing regulatory and technological expertise helps the United States, other industrialized nations, and developing nations achieve development consistent with the goals of protecting human health and the environment. As

developing nations progress economically, their use of sound environmental practices will prevent the need for costly cleanup and restoration in the future. In addition, the development of effective environmental management and regulatory regimes throughout the world helps ensure that U.S. companies are not competitively disadvantaged by developing nations who otherwise may opt for rapid, inexpensive economic growth at the expense of the environment.

Means and Strategy

To reduce environmental and human health risks along the U.S./Mexico Border and the Great Lakes, EPA employs both voluntary and regulatory measures. Efforts in the U.S./Mexico Border Area utilize a series of workgroups that focus on priority issues ranging from water infrastructure and hazardous waste to outreach efforts focusing on communities and businesses in the border area. The programs were initially conceived in a Federal-to-Federal context. While this may have been appropriate at the start, it is clear that today in both countries, non-Federal governments are the appropriate entities for developing and carrying out much of the work of protecting the border environment. The experience of the last six years has shown U.S. border states as key participants in workgroup activities with similar experience on the Mexico side. In the past year all border states have stressed the need for greater decentralization of environmental authority, and in FY 1999, states and the Federal governments agreed to a set of principles that clarify the roles of the governments and advance state and Tribal participation. Under a new environmental plan developed with SEMARNAP (EPA's Mexican counterpart), targeted for completion by December 2002, the states and Tribes will play a more substantial and meaningful role in:

- < determining how Federal border programs are developed and funded;
- < focusing on developing regional workgroups that empower border citizens; and
- < ensuring that programs devolve from Mexico's Federal government to the Mexican states, with corresponding funding.

The 2001 Great Lakes Strategy, developed by EPA's Great Lakes National Program Office (GLNPO) and Federal, state, and Tribal agencies in consultation with the public, advances U.S. Great Lakes Water Quality Agreement implementation. Its long-range vision (a healthy natural environment where all beaches are open for swimming, all fish are safe to eat, and the Lakes are protected as a safe source of drinking water) is supported by Lakewide Management Plans and Remedial Action Plans for Areas of Concern. Progress is measured through the Integrated Atmospheric Deposition Network and GLNPO's open water, fish, and sediments monitoring. To prevent degradation of the marine environment, the Agency, in conjunction with the Department of State, the National Oceanic and Atmospheric Administration (NOAA), and other Federal agencies, is focusing on the negotiation and implementation of legally-binding multilateral agreements. These agreements are designed to address sources of marine pollution that impact the United States.

EPA will meet its climate change objectives by both working with business and other sectors to deliver multiple benefits - from cleaner air to lower energy bills - while continuing to improve overall scientific understanding of climate change and its potential consequences. The core of EPA's climate change efforts are government/industry partnership programs designed to capitalize

on the tremendous opportunities available to consumers, businesses, and organizations to make sound investments in efficient equipment and practices. These voluntary programs remove barriers in the marketplace, resulting in faster deployment of energy efficient technology into the residential, commercial, transportation, and industrial sectors of the economy. Through the Clean Automotive Technology initiative, EPA will work with industry to develop and commercialize fuel-efficient hydraulic hybrid and advanced engine technologies that will utilize EPA developed technologies.

EPA is also engaged in working with key developing countries and economies- in- transition to provide capacity building and technology transfer in areas of air quality, transportation, clean energy use and energy efficiency, and cleaner production. Working hand-in-hand with international partners, these joint activities support more sustainable practices and lead to greenhouse gas emissions reductions as well as build local technical capacity for developing countries to take on commitments to reduce greenhouse gas emissions under the 1992 Climate Convention. EPA's activities provide information sharing and training and contribute to the fulfillment of U.S. commitments under the Climate Convention to facilitate technology transfer to developing countries.

In order to restore and protect the earth's stratospheric ozone layer, EPA will work on both domestic and international fronts to limit the production and use of ozone-depleting substances and to develop safe alternative compounds. EPA will also provide education about the risk of environmental and health consequences of overexposure to ultraviolet (UV) radiation.

To address the risks associated with persistent and bioaccumulative substances and other toxics, the Agency employs two fundamental approaches. The first approach seeks to minimize the harmful impacts of toxic substances known to circulate in the environment over long distances through the negotiation and implementation of specific treaties. The second approach focuses on the cooperative efforts of the Organization for Economic Cooperation and Development (OECD) and other international organizations working to develop harmonized methods for testing and assessing the toxicity of chemicals, and for measuring the effects of chemicals to humans and the environment.

In addition to the specific strategies noted above, the Agency employs a variety of means to achieve the environmental objectives outlined in this goal. These include:

- Implementing formal bilateral and multilateral environmental agreements with key countries, executing environmental components of key foreign policy initiatives, and, in partnership with the Department of State, engaging in regional and global negotiations aimed at reducing risks via formal and informal agreements.
- Working with other countries to ensure that domestic and international environmental laws, policies, and priorities are recognized and implemented.
- Partnering with other Federal agencies, states, business, and environmental groups to promote the flow of environmentally sustainable technologies and services worldwide.

Research

EPA's Global Change Research Program contributes to the Agency's goal of reducing greenhouse gas emissions by providing the knowledge to allow policy makers to find the most appropriate, science-based solutions to reduce risks to human health and ecosystems posed by climate change (e.g., the impacts climate change could have on the spread of vector-borne and water-borne disease, as well as on air and water quality). The Agency is working to assess the vulnerability of human health and ecosystems to various environmental stressors (e.g., climate change, land-use change, UV radiation) at the regional scale, and to assess adaptation strategies.

Highlights

In FY 2003, EPA will use a variety of approaches to build international cooperation and technical capacity and to prevent harm to the global environment and ecosystems we share with other nations.

The Agency will host representatives of foreign governments, industry, and Non-governmental Organizations (NGOs) at the Agency's Headquarters, Regions, and labs. The Agency will also disseminate thousands of technical publications and CD-ROMs to developing countries and provide access to additional information through technical training courses, the Agency website, the Spanish Language Resources site, and other services.

EPA will work directly with other countries and through multilateral organizations to share innovative practices for environmental management and to disseminate environmental information. These programs build the capacity of developing countries to improve the quality of life for their citizens, while also providing reciprocal benefits to U.S. citizens. These benefits include: the introduction of new techniques for managing urban environments, reduced environmental damage to the global commons, reduced costs and effort through data sharing, an increased demand for U.S. environmental technologies and services, and the implementation of more transparent enforcement and permitting regimes.

U.S./Mexico Border

To reduce environmental and human health risks along the U.S./Mexico Border, EPA will continue its work with the border states and Mexico to target the quality of air, drinking water and wastewater treatment and hazardous waste management and disposal. Nine working groups will address key issues while working closely with state and local agencies on both sides of the border. EPA will also continue to support the financing and construction of water, wastewater treatment and solid waste facilities.

Following on the agreement of Presidents Bush and Fox to serve urgent environmental priorities in the border, EPA and SEMARNAP (EPA's Mexican counterpart) will "work closely with our state and Tribal partners to develop -by December 31, 2002- a new and results-oriented plan for the U.S.-Mexico border." The environmental plan will build on the foundation of the La Paz Agreement and draw on experiences of previous border programs. As a step toward

development of this plan, the 10 border states have proposed, and EPA concurs with, the following mission statement: “To protect public health and the environment through conservation, pollution prevention, and pollution abatement in the U.S.-Mexico border region, consistent with the principles of sustainable development.”

Great Lakes

EPA, through the Great Lakes National Program Office, will coordinate among state, Tribal, and Federal agencies to implement the Great Lakes Strategy and measure progress against quantitative environmental objectives in areas such as clean-up of Areas of Concern, reduction of fish contaminants, beach closures, sediment remediation, wetland restoration, and invasive species. In FY 2003, if long term trends continue, EPA will report a 5% decline in toxics (PCBs) in lake trout and a 7% reduction in air toxic concentrations. EPA and its partners will remediate over 100,000 cubic yards of contaminated sediments. EPA will also explore why Lake Erie dissolved-oxygen levels are inexplicably low despite U.S. and Canadian success in achieving phosphorus targets.

Proposed longer-term objectives in the draft Great Lakes Strategy include:

- By 2005, clean-up and de-list 3 Areas of Concern, with a cumulative total of 10 by 2010 out of 43 that have been identified.
- By 2007, reduce concentrations of PCBs in lake trout and walleye by 25%.
- By 2010, 90% of monitored Great Lakes beaches will be open 95% of the swimming season. (Current data for calendar year 2000 indicates that there are 234 monitored beaches in the Great Lakes, and about 75% of them are open more than 95% of the season.)
- By 2010, vessels entering the Great Lakes will discharge ballast water free of invasive species.
- By 2010, restore or enhance 100,000 acres of wetlands in the Basin.
- Accelerate the pace of sediment remediation, leading to the clean-up of all sites by 2025.

Climate Change

EPA’s voluntary climate change programs have made significant progress to date. However, there remain large opportunities to achieve further pollution reductions and energy bill savings from energy efficiency programs and greater use of cost-effective renewable energy. In the U.S., energy consumption causes more than 85 percent of the major air emissions such as NO_x, SO₂, and CO₂. At the same time, American families and businesses spend over \$600 billion each year on energy bills - more than we spend on education. Technologies are available today that can cut this energy use significantly. Other technologies are being developed that may provide even more dramatic opportunities - such as transferring the highly efficient hybrid powertrain components, originally developed for passenger car applications, to meet the more demanding size, performance, durability, and towing requirements of Sport Utility Vehicles (SUVs) and urban delivery vehicle applications, resulting in increased fuel economy. In particular, EPA’s Clean Automotive Technology (CAT) initiative will provide the following benefits:

- Allow EPA to develop unique engine and hybrid technology for SUVs and urban delivery vehicles, resulting in increased SUV fuel efficiency of 30% (from 2001 baseline of 20.2 mpg) by 2006 and up to 100% by 2010.
- With the successful development and adoption of this cost effective and practicable technology (facilitated by complementary policies), EPA estimates that the eventual market penetration for this technology to be up to 40-50% in 2020.
- This would result in a potential for annual fuel savings of up to 8 billion gallons (4% savings from business-as-usual) or the equivalent of 25 MMTCE reduced in 2020 (from light trucks including SUVs).

EPA will continue to build upon its voluntary government/industry partnership efforts to achieve even greater greenhouse gas reductions by taking advantage of additional opportunities to simultaneously reduce pollution and energy bills. EPA's climate programs break down market barriers and foster energy efficiency programs, products and technologies, cost effective renewable energy, and greater transportation choices. A key example is within the Buildings Sector which represents one of EPA's largest areas of potential, and at the same time is one of its most successful.

EPA will continue to build upon the successful ENERGY STAR partnerships (including ENERGY STAR Labeling and the ENERGY STAR Buildings Program) and work toward the goal of offsetting about 24% of the growth in greenhouse gas emissions above 1990 levels expected by 2010 in this sector.

EPA's programs will contribute about 43 MMTCE annually in greenhouse gas reductions by 2010 while saving businesses and consumers more than \$14 billion. In addition, EPA will continue work in the Industry and Transportation Sectors as well as fostering efforts in carbon sequestration.

EPA will continue to work closely with state and local partners to assess the air quality, health, and economic benefits of reducing greenhouse gas emissions and developing practical risk reduction strategies. And, it will establish international partnerships that will link industrial efficiency, reduction of greenhouse gases, and sustainable development.

Stratospheric Ozone

To protect the earth's stratospheric ozone layer in accordance with the United States' commitment to the Montreal Protocol, EPA will continue to regulate ozone-depleting compounds, foster the development and use of alternative chemicals in the U.S. and abroad, inform the public about the dangers of overexposure to UV radiation, and use pollution prevention strategies to require the recycling of ozone-depleting substances (ODSs) and hydroflourocarbons.

Toxics and Pollutants

Reduced risks from toxics, especially persistent organic pollutants (POPs) and selected metals that circulate in the environment at global and regional scales, will be achieved by working with other countries within the frameworks established by international instruments to control the production or phase-out from the use of targeted chemicals. EPA is also working to reach agreement on import and export requirements applicable to certain chemicals, an expansion of

pollutant release and transfer registers and the harmonization of chemical testing, assessment and labeling procedures. The goal of international harmonization of test guidelines is to reduce the burden on chemical companies of repeated testing in satisfying the regulatory requirements of different jurisdictions both within the United States and internationally. Harmonization also expands the universe of toxic chemicals for which needed testing information is available, and fosters efficiency in international information exchange and mutual international acceptance of chemical test data. EPA will continue to cooperate closely with other Federal agencies and with other industrialized nations within the program framework of the Organization for Economic Cooperation and Development (OECD) in harmonizing testing guidelines.

The U.S. is working with other OECD member countries to implement the International Screening Information Data Set (SIDS) program, a voluntary international cooperative testing program begun in 1990. The program focuses on developing base-level test information (including data on basic chemistry, environmental fate, environmental effects and health effects) for international high production volume chemicals. SIDS data will be used to screen chemicals and to set priorities for further testing and/or assessment. The Agency will review testing needs for 75 SIDS chemicals in FY 2003.

POPs Implementation

The United States recently signed the Stockholm Convention on persistent organic pollutants (POPs) which addresses substances such as DDT, PCBs and dioxins. These substances travel great distances in the environment and thus threaten humans and the ecosystem in the U.S., despite domestic efforts to reduce releases. The problem is especially acute in Alaska and the Great Lakes, where POPs are taken up in the food chain and impact Native Americans who depend on subsistence foods. This convention will require ratifying countries to reduce and/or eliminate their production, use, and/or release of specified POPs. To ensure that developing countries comply with obligations under this convention, the U.S. is working with the Global Environment Facility (a joint funding program run by the World Bank, the United Nations Environment Program, and the United Nations Development Program) to carry out capacity-building programs in developing countries.

In FY 2003, EPA will target new and existing resources to: (1) provide technical and financial assistance to key countries/regions, with an emphasis on those whose releases most directly affect the U.S. (e.g., Russia, Central America, and the Caribbean); (2) address key priorities/areas of need for each country as well as gaps in technical and financial assistance; (3) maximize use of existing bilateral and regional partnerships, such as the North American Commission on Environmental Cooperation (NACEC) and the Arctic Council, to achieve efficiencies and leverage funding; and (4) support international cooperative efforts, such as monitoring and assessment, to identify trends and establish priorities.

Research

EPA will assess the potential consequences of global change - including climate variability and change, land use changes, and UV radiation - on air quality, water quality, ecosystem health, and

public health. EPA will also assess potential adaptation strategies for building resilience to global change, while responding to both risks and opportunities. The program will continue to focus on providing scientific information to support decision making by policy makers, resource managers, and other stakeholders. In FY 2003, EPA's Global Change Research Program will place particular emphasis on continuing its support for the assessment of the consequences of global change within regions and sectors, the ongoing U.S. National Assessment activities, and other related U.S. Global Change Research Program (USGCRP) assessment activities. The Program will emphasize assessing the potential effects of climate change on weather-related morbidity and will continue to support the maintenance of the UV monitoring network and data collection using the network. Additional areas of focus in FY 2003 will be continuing the assessment of potential consequences of global change for air quality (which will inform air quality managers and other decision makers about how climate change might affect regional concentrations of criteria air pollutants), water quality (which will inform managers of public water systems of how climate change might affect water quality in states and localities), and aquatic ecosystem health.

External Factors

EPA's work to reduce global and cross-border environmental risks requires the cooperation of numerous governments and agencies around the world as well as non-governmental organizations and private sector parties. Accordingly, the level of success and the speed at which our objectives are achieved is highly influenced by external factors and events.

While many factors outside of EPA or U.S. control determine a nation's willingness to participate in international environmental protection efforts (e.g., economic or political considerations within the country), EPA's international policy and technical exchange programs can play an important role in convincing particular nations of both the need and feasibility of participating. Other factors affecting EPA's programs include continued Congressional and public support; cooperation with other Federal agencies, such as the State Department and the U.S. Agency for International Development; and collaboration with state and local groups, business and industry groups, and environmental organizations.

Reduction of air, water, wastewater and solid waste problems along the U.S. border with Mexico will require continued commitment by national, regional and local environmental officials in that country.

Progress on Great Lakes goals and measures is dependent on actions of others, both within and outside of the Great Lakes. Key Great Lakes partners, including Canada, state regulatory agencies, the Corps of Engineers, the National Oceanic and Atmospheric Administration (NOAA), the Fish and Wildlife Service (USFWS), and the Natural Resources Conservation Service (NRCS) must act together to continue environmental progress.

The U.S. Global Change Research Program (USGCRP) was established in 1990 by the U.S. Global Change Research Act. The 1990 Act mandates that the USGCRP conduct periodic assessments of the consequences of global change for the U.S. EPA is one of ten member agencies

of the USGCRP. The EPA program relies on partnerships with academic institutions to fulfill its obligations to the USGCRP National Assessment effort.

EPA's efforts to reduce global and regional threats to oceans and the atmosphere require the active cooperation of other countries. Health and environmental benefits resulting from the multi-billion dollar investment by U.S. companies to reduce emissions of stratospheric ozone-depleting compounds could be completely undone by unabated emissions of these chemicals in other countries. Fortunately, the Montreal Protocol on Substances that Deplete the Ozone Layer has secured the participation of most countries, including major producers and consumers of these chemicals. Recovery of the stratospheric ozone layer is contingent upon international adherence to the commitments made under the Montreal Protocol. UV risk-reduction efforts are impacted by the rate of recovery of the ozone layer and socio-behavioral norms and attitudes regarding sun protection.

The success of international agreements on toxic substances is contingent on the developed world providing adequate levels of funding and timely technical assistance to developing countries, especially key source countries. Such funding and technical assistance is necessary in order for these countries to develop the necessary skill levels and infrastructure for implementing these environmental agreements. The ultimate success of these international efforts is contingent on not only the provision of policy and technical leadership by EPA and other Federal government entities, but also the ability to lead through the provision and leveraging of financial and technical assistance.

Environmental Protection Agency

FY 2003 Annual Performance Plan and Congressional Justification

Reduction of Global and Cross-border Environmental Risks

Objective: Reduce Transboundary Threats to Human and Ecosystem Health in North America.

By 2005, reduce transboundary threats to human health and shared ecosystems in North America, including marine and Arctic environments, consistent with our bilateral and multilateral treaty obligations in these areas, as well as our trust responsibility to tribes.

Resource Summary (Dollars in Thousands)

	FY 2001 Actuals	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Reduce Transboundary Threats to Human and Ecosystem Health in North America.	\$120,000.8	\$96,869.4	\$98,185.9	\$1,316.5
Environmental Program & Management	\$21,136.7	\$21,869.4	\$23,185.9	\$1,316.5
State and Tribal Assistance Grants	\$98,864.1	\$75,000.0	\$75,000.0	\$0.0
Total Workyears	82.9	83.5	80.8	-2.7

Key Program (Dollars in Thousands)

	FY 2001 Enacted	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Administrative Services	\$60.1	\$0.0	\$0.0	\$0.0
Facilities Infrastructure and Operations	\$0.0	\$1,082.2	\$1,127.7	\$45.5
Great Lakes National Program Office	\$15,266.3	\$14,929.7	\$15,128.2	\$198.5
Legal Services	\$422.5	\$443.1	\$476.2	\$33.1
Management Services and Stewardship	\$196.2	\$333.4	\$373.7	\$40.3
Regional and Global Environmental Policy Development	\$913.0	\$931.5	\$715.5	(\$216.0)
U.S. - Mexico Border	\$4,384.2	\$4,149.5	\$5,364.6	\$1,215.1
Water Infrastructure:Mexico Border	\$74,835.0	\$75,000.0	\$75,000.0	\$0.0

FY 2003 Request

EPA's activities under this objective address transboundary environmental threats along the U.S. border areas, in shared North American ecosystems, as well as in the Great Lakes. Activities focus on the U.S.-Mexico Border, the U.S.-Canada Border, the Great Lakes Program, and marine and Arctic environments.

U.S.-Mexico Border

Communities along the 2,000 mile U.S.-Mexico border are experiencing rapid economic and population growth, as well as environmental problems, much of it driven by increased trade between the countries. There are more than 12.6 million border residents, a population that has doubled in the last 15 years, and is expected to double again in the next 20 years. Among the negative consequences of this growth are inadequate environmental infrastructure, increased water scarcity, serious gastrointestinal and respiratory illness, and hazardous and non-hazardous waste disposal problems. Based on the results of the U.S. - Mexico Border XXI Program: Progress Report 1996 - 2000 and public comments, EPA will focus limited resources in areas which can most directly lead to improvements in public health and environmental conditions in this area. The program focuses on 1) reducing the effects of the environment on human health, 2) improving air quality, 3) funding wastewater and drinking water infrastructure investments in under-served communities, 4) managing chemical accidents, 5) supporting pollution prevention programs that will, over the long term, reduce the adverse health and environmental effects of pollutants, 6) reducing and effectively managing hazardous and solid wastes, 7) strengthening binational cooperation between institutions responsible for enforcing their respective country's environmental laws, and 8) strengthening coordination on pesticide activities linking the work on regulatory harmonization with field implementation projects to protect field workers and assure safe food supplies.

EPA's programs will enhance efforts to monitor air quality and establish programs to reduce air pollution. The completion of joint chemical accident contingency plans in border sister-cities will further reduce the risk to human health and ecosystems due to chemical spills. Working with the government of Mexico, EPA will implement a system to track the movement of hazardous wastes, providing a tool for the enforcement of waste disposal regulations and decreasing the risk of exposure due to noncompliance.

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. In January 2001, EPA estimated water and wastewater infrastructure needs along the U.S.-Mexico border at \$4.5 billion. For FY 2003, the Agency has established a goal that cumulatively 900,000 people in the border area will be protected from health risks because of the construction of adequate water and wastewater sanitation systems. To respond to serious health threats due to environmental infrastructure deficits, EPA will work with two key partners, the Border Environment Cooperation Commission and the North American Development Bank, which manages the Border Environmental Infrastructure Fund (BEIF), to support the financing and construction of water and wastewater treatment.

The Agency will cooperate with its Mexican counterpart agencies to implement the provisions of the LaPaz Agreement and the Border XXI Framework Document which provide a long-term strategy to improve public health and the environment and protect essential natural resources on the border. Nine binational

working groups will address key issues, working closely with state and local agencies on both sides of the border.

Communities along the 2,000 mile U.S.-Mexico border are experiencing rapid economic and population growth, as well as environmental problems, much of it driven by increased trade between the countries. There are more than 12.6 million border residents, a population that has doubled in the last 15 years, and is expected to double again in the next 20 years. Among the negative consequences of this growth are inadequate environmental infrastructure, increased water scarcity, serious gastrointestinal and respiratory illness, and hazardous and non-hazardous waste disposal problems. Cooperative programs with Mexico to address these problems are carried out under the 1983 La Paz Agreement, in which Regional, media, and functional workgroups implement an array of activities with states, municipalities, and other organizations.

EPA will focus FY 2003 resources in areas which can most directly lead to improvements in public health and environmental conditions in the area and begin development of a new environmental program for the border. During discussions between the Bush Administration and the Government of Mexico a new commitment to work closely with our state and Tribal partners to develop a new and results-oriented plan for the U.S.-Mexico border was proposed and agreed to. The center piece of this new plan is a shift from an centralized decision-making framework to regional framework, working more closely with States, Tribes, and local communities on both sides of the border on environmental issues they have identified and prioritized. Efforts underway will continue as work progresses in developing a successor initiative to Border XXI.

Great Lakes

The Great Lakes National Program Office (GLNPO) will coordinate implementation of the ecosystem approach in the Great Lakes by its Federal, state, Tribal, and local partners, implementing a "community-based" approach. GLNPO and its partners will manage programs in accord with a multi-agency 2001 Great Lakes Strategy.

EPA will assess and report on the state of key Great Lakes ecosystem components, make status and trend information available to Great Lakes environmental managers, and coordinate measurement of a limited number of environmental indicators applicable to the entire Great Lakes Basin. EPA's Great Lakes program will describe trends in: concentrations of toxics in Great Lakes top predator fish; beach closings; concentrations of toxic chemicals in the air, trophic status and phosphorus; and contaminated sediment remediation. Information will be provided to state and Federal environmental managers to support decision making. GLNPO will adjust implementation of its monitoring program for a subset of indicators consistent with GPRA, the new Great Lakes Strategy, and the biennial State of the Lakes Ecosystem Conference (SOLEC - a biennial conference bringing together representatives of the public and private sectors to facilitate decision making based upon sound environmental information).

Adjustments to the monitoring program will enable the Agency and its partners to determine how to further reduce Great Lakes pollutants in the most cost-effective way and will provide trend and baseline data to support and target remedial efforts and measure environmental progress under Remedial Action Plans and Lakewide Management Plans. The Research Vessel (R/V) Lake Guardian (open lake monitoring), the R/V Mudpuppy (nearshore sediments monitoring), and the joint GLNPO/Canadian integrated atmospheric

deposition network (including air monitoring stations on each Great Lake) will be central to summarizing the ecological State of the Lakes. GLNPO will also explore why dissolved-oxygen levels in Lake Erie are inexplicably low, resulting in an increasing “dead zone,” despite U.S. and Canadian success in achieving total phosphorus targets. EPA will also expand access to Great Lakes environmental information via the Internet.

EPA will work with Environment Canada and lead domestic partners in implementing the Great Lakes Binational Toxics Strategy, signed in 1997. The Strategy, a groundbreaking international toxics reduction effort, targets a common set of persistent, toxic substances for reduction and virtual elimination from the Great Lakes. It focuses on pollution prevention efforts, using voluntary and regulatory tools to achieve reductions, and contains reduction challenges for a targeted set of substances, e.g., mercury, PCBs, dioxins/furans, and certain canceled pesticides. Actions and activities are outlined in the Strategy which states, industry, Tribes, non-government organizations and other stakeholders may undertake to achieve these reductions. Through grants to stakeholders (such as the Great Lakes States, Tribes, and environmental groups) for mercury or PCB reduction projects, and other reduction actions, EPA will help achieve reduction targets, consistent with the identification of options for each of the 12 Binational Toxics Strategy substances. EPA proposes to work with industrial and municipal sectors to achieve additional reductions. Implementation of the Strategy outside of the Great Lakes Basin will be augmented through cross-Agency support and activities relating to EPA’s Persistent Bioaccumulative Toxics (PBT) Initiative. Toxics highlighted in the Strategy were chosen as the initial set of toxics targeted under the PBT Initiative.

EPA, with its Great Lakes partners, will continue to address the contaminated sediments polluting the rivers and harbors of the 31 U.S. and/or binational Areas of Concern (AOCs). GLNPO will provide technical expertise, garnered during the congressionally mandated Assessment and Remediation of Contaminated Sediments program, in addition to financial support and the use of its sediment sampling vessel, the R/V Mudpuppy, to support sediment assessments at AOCs. GLNPO also provides technical support to our Great Lakes partners for evaluating available data and making sediment management decisions at specific sites. If a community chooses to remediate the sediments, GLNPO can provide technical and limited financial support for conducting sediment site clean-up. In FY 2003, GLNPO will assist states and communities with assessments and remedial design at sites in 4 AOCs, one of which has not previously received this assistance. A total of 100,000 cubic yards of contaminated sediments is expected to be remediated through various actions involving a number of different stakeholders.

The Agency will support the efforts of states, Tribes, and local communities to protect and restore important habitats identified in the Great Lakes biodiversity report of The Nature Conservancy (TNC) and in SOLEC habitat papers. The program emphasizes habitats important for biodiversity and ecological integrity, such as those necessary for endangered and threatened species. Additional projects for ecological enhancement will be started in nearshore waters, coastal wetlands, river corridors, and terrestrial lands. The projects will implement measures to protect ecological communities and biodiversity or take steps to restore ecological functions and processes. Pilots will be underway for the development of indicators for scientifically sound assessments of the ecological integrity of coastal wetlands.

EPA is working with states and local groups from the Areas of Concern to expedite de-listing of those Areas of Concern. EPA, states, and local communities will strategically target reductions of critical pollutants and restoration of impaired beneficial uses through Remedial Action Plans for Areas of Concern and through Lakewide Management Plans for Lakes Ontario, Michigan, Superior, and Erie. The Agency

will continue to report to Congress and the International Joint Commission regarding progress under the Great Lakes Water Quality Agreement.

Marine and Arctic Environments

In FY 2003, EPA will undertake efforts to prevent significant degradation of the marine and Arctic environments. Our FY 2003 performance goals target incremental steps necessary to achieve our longer-term objectives of preventing further degradation of the marine environment of the Wider Caribbean and Arctic Ocean, as well as the marine environment more generally, where our negotiating efforts through the International Maritime Organization are aimed at mitigating marine pollution at a global scale. Our Regional and global efforts are specifically designed to enhance the effectiveness of existing domestic environmental controls and reduce pollution of U.S. waters resulting from international shipping and other transboundary vectors.

The focus of the program is the protection of those natural resources in the marine and polar environments that are important to the United States and other countries as well as the public health of Arctic Rim populations. More specifically, the programs will prevent or reduce environmental damage associated with tributyltin, vessel discharges, invasive species, and ocean dumping. Specific projects aimed at protection of the Arctic ecosystem are focused on preventing and reducing environmental contamination from spent nuclear fuel, PCBs, and dioxins in Northwest Russia.

The Russia PCB project will assist the Russian Federation in phasing out its manufacture and use of PCBs, to reduce the release of PCBs and their subsequent transport to the Arctic, and to encourage the Russian Federation to begin using PCB substitutes. EPA's involvement to address toxic pollutants in the Arctic region are now addressed under Objective 4, Global Toxics. The project is a multilateral cooperative pilot and is currently being conducted in conjunction with all the Arctic Rim countries under the auspices of the Arctic Council. In May 1999, agreements were signed with the Russian Federation to begin the multilateral cooperative pilot project, with the completion of a Russian Federation PCB inventory planned for May 2000. Based on the results of the inventory, Russian facilities that impact the Arctic will be prioritized for conversion or retrofitted for the manufacture or use of PCB substitutes. In 2001, the Arctic Council instituted a corresponding multilateral project to address dioxins and furans impacting the Arctic environment; EPA's involvement is addressed under Objective 4, Global Toxics.

In addition, ongoing efforts to address land-based sources of marine pollution in the wider Caribbean should result in improvements in Regional water quality and marine habitats that include economic benefits to significant commercial interests in the Region. Finally, our involvement in global negotiations is critical to maintain needed flexibility in domestic rule making and other environmental policy mechanisms.

FY 2003 Change from FY 2002

EPM

- (-\$537,000) This decrease reflects a disinvestment of a FY 2002 Congressional earmark.
- (+\$1,000,000) This increase provides additional resources for mitigating threats to public health and the environment and establishing a new environmental plan for the U.S. -Mexico Program.
- (\$1,398,700) Resources, dollars and FTE, associated with rent are allocated in proportion to Agency-wide FTE located in each goal, objective. Resources, dollars and FTE, associated with utilities, security and human resource operations are allocated in proportion to Headquarters FTE located in each goal, objective. Changes reflect shifts in FTE between goals and objectives. Resources, dollars and FTE, associated with contracts and grants are allocated in proportion to Headquarters' contracts and grants resources located in each goal, objective. Changes in these activities reflect shifts in resources between goals and objectives. *(Total changes - rent: - \$3,569,400, utilities: +\$3,468,000, Security: -\$9,103,900. Nominal increases/decreases occurred in human resource operations, grants and contracts related activities.)*

Annual Performance Goals and Measures

U.S. - Mexico Border Water/Wastewater Infrastructure

- In 2003 Increase the number of residents in the Mexico border area who are protected from health risks, beach pollution and damaged ecosystems from nonexistent and failing water and wastewater treatment infrastructure by providing improved water and wastewater service.
- In 2002 Increase the number of residents in the Mexico border area who are protected from health risks, beach pollution and damaged ecosystems from nonexistent and failing water and wastewater treatment infrastructure by providing improved water and wastewater service.
- In 2001 Provided protection to over 576,405 residents in the Mexico border area from health risks, beach pollution and damaged ecosystems from nonexistent and failing water and wastewater treatment infrastructure by providing improved water and wastewater service.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Number of additional people in Mexico border area protected from health risks, because of adequate water & wastewater sanitation systems funded through Border Environmental Infrastructure Fund.	576,405	790,000	900,000	People

Baseline: There are approximately 11 million residents in the border area.

Great Lakes: Binational Toxics Strategy

- In 2003 Reduce Great Lakes toxic pollutants.
- In 2002 Reduce Great Lakes toxic pollutants.
- In 2001 Reduced Great Lakes toxic pollutants by remediating over 400,000 cubic yards of contaminated sediment..

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Cubic yards of contaminated sediment remediated in the Great Lakes.	401,500	100,000	100,000	Cubic yards

Baseline: U.S. baselines for toxic pollutants are, in most cases, based on the most recent and appropriate inventory as of the Great Lakes Strategy's 1997 signing. In the case of mercury, for example, the most recent inventory is based on estimated emissions during the early 1990s. In September 1999, GLNPO quantified for the first time annual contaminated sediment remediation. GLNPO will continue to quantify contaminated sediment remediation annually.

Great Lakes: Ecosystem Assessment

- In 2003 Great Lakes ecosystem components will improve, including progress on fish contaminants, beach toxics, air toxics, and trophic status.
- In 2002 Great Lakes ecosystem components will improve, including progress on fish contaminants, beach toxics, air toxics, and trophic status.
- In 2001 Great Lakes ecosystem components improved, including progress on fish contaminants, beach toxics, air toxics, and trophic status.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request		
Long-term concentration trends of toxics (PCBs) in Great Lakes top predator fish.	Uncertain	Declining	5%		Annual decrease
Long-term concentration trends of toxic chemicals in the air.	Declining	Declining	7%		Annual decrease
Total phosphorus concentrations (long-term) in the Lake Erie Central Basin.	Improving	Improving	10		Ug/l
Long-term dissolved oxygen depletion trend in Lake Erie.		Limited	3.11		Mg/l

Baseline: Identified targets are currently based on historic trends. The trend (starting with 1972 data) for PCBs in Great Lakes top predator fish toxics is expected to be less than 2 parts per million (the FDA action level), but far above the Great Lakes Initiative target or levels at which fish advisories can be removed. The trend (starting with 1992 data) for PCB concentrations in the air is expected to range from 50 to 250 picograms per cubic meter. The trend (starting with 1983 data) for phosphorus concentrations is expected to range from 4 to 10 parts per billion, levels established in the Great Lakes Water Quality Agreement. The 1970 baseline of oxygen depletion of the Lake Erie central basin is 3.8 mg/liter/month. EPA is working with its partners to refine targets within the next 3 years.

Mexico Border Outreach

- In 2003 Develop air quality assessments and improvement programs to attain air quality standards in border communities.
- In 2003 Expand hazardous waste management and pollution prevention practices in the maquiladoras.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request		
U.S. cities along the Mexico Border region carrying out air emissions inventories.			1		cities
Number of maquiladoras that have implemented pollution prevention controls after a site assessment visit, workshop, or training session.			314		maquiladoras

Baseline: Many border area residents are exposed to health-threatening levels of air pollutants including ozone, particulate matter, carbon monoxide and sulfur dioxide. The need to evaluate levels of targeted air pollutants is particularly urgent in heavily populated urban areas where air quality problems are compounded by emissions from increasing numbers of vehicles - many of which are older and poorly maintained; extensive industrial activity; and numerous air sources (e.g., unpaved roads, waste disposal fires). To date seven out of the 14 sister-city pairs have air quality networks established and operating.

Verification and Validation of Performance Measures

Performance Measure: People in the Mexico border area protected from health risks because of adequate water and wastewater sanitation systems funded through the Border Environmental Infrastructure Fund. (cumulative)

Performance Database: No formal database

Data Source: 1) Population figures from 1990 U.S. Census; 2) Data for both U.S. and Mexican populations served by “certified” water/wastewater treatment improvements from the Border Environment Cooperation Commission (BECC); 3) Data on projects funded from the North American Development Bank (NADBank) 4) Status Report on the Water-Wastewater Infrastructure Program for the U.S.-Mexico Borderlands, January, 2001.

QA/QC Procedures: Headquarters is responsible for coordinating submission of and evaluating quarterly reports from EPA Regional Offices on these drinking water and wastewater sanitation projects.

Data Quality Review: Regional representatives attend meetings of the certifying and financing entities for border projects (BECC and NADBank) and conduct site visits of projects underway to ensure the accuracy of information reported.

Data Limitations: None

New/Improved Data or Systems: None

Performance Measure: Concentration trends of toxics (PCBs) in Great Lakes top predator fish.
<http://www.epa.gov/glnpo/glindicators/fishcontaminants.html>

Performance Database: Great Lakes National Program Office (GLNPO) base monitoring program.

Data Source: GLNPO’s ongoing base monitoring program, which has included work with cooperating organizations such as the Great Lakes States, USGS, and USFWS.

QA/QC Procedures: GLNPO has a Quality Management system in place which conforms to the EPA quality management order and is audited every 3 years in accordance with Federal policy for Quality Management.

Data Quality Review: GLNPO’s quality management system has been given “outstanding” ratings in previous peer and management reviews. GLNPO has implemented all recommendations from these external audits and complies with Agency Quality standards.

Data Limitations: There is greater uncertainty regarding the representativeness of data pertaining to near shore areas because of the greater variability of the near shore environment. GLNPO will be able to quantify uncertainty for data in each reported area. In 2002, GLNPO is seeking documentation of how samples are collected and what they represent in order to quantify uncertainty for data in each reported area. Limitations of the field sampling and design information will be addressed through the field audits mentioned above. The field sampling aspects of the program are voluntary partnerships with the states, thus limiting Federal oversight.

New/Improved Data or Systems: The GLENDAs database is a significant new system with enhanced capabilities. Existing and future fish data will be added to GLENDAs.

Performance Measure: Concentration trends of toxic chemicals in the air.
<http://www.epa.gov/glnpo/glindicators/atmospheric.html>

Performance Database: Great Lakes National Program Office (GLNPO) integrated atmospheric deposition network (IADN) operated jointly with Canada.

Data Source: GLNPO and Canada are the principal sources of that data. Data also come through in-kind support and information sharing with other Federal agencies, with Great Lake States, and with Canada.

QA/QC Procedures: GLNPO has a Quality Management system in place which conforms to the EPA quality management order and is audited every 3 years in accordance with Federal policy for Quality Management.

Data Quality Review: GLNPO's quality management system has been given "outstanding" ratings in previous peer and management reviews. This program has a joint Canadian US quality system and workgroup that meets twice a year. GLNPO has implemented all recommendations from these external audits and complies with Agency Quality standards.

Data Limitations: The sampling design is dominated by rural sites that under emphasize urban contributions to deposition; thus although the data is very useful for trends information, there is less assurance of the representativeness of deposition to the whole lake. There are gaps in open lake water column organics data, thus limiting our ability to calculate atmospheric loadings.

New/Improved Data or Systems: GLNPO expects to post joint data that has passed quality review to < <http://binational.net/> > , a newly created joint international web site.

Coordination with Other Agencies

Mexican Border

Over the last several years, EPA has continued to work with the U.S. and Mexican sections of the International Boundary and Water Commission to further our efforts to improve water and wastewater services to communities within 100 km of the U.S.- Mexico Border. Recently, EPA has been involved in efforts to plan, design and construct more than 10 water and wastewater facilities in the Border Region.

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), with headquarters in Ciudad Juarez, Chihuahua, Mexico, assists local communities and other sponsors in developing and implementing environmental infrastructure projects. EPA has provided \$30.5 million through FY 2001 to the BECC project development fund. The BECC also certifies projects as eligible for North American Development Bank financing.

The North American Development Bank (NADBank), with headquarters in San Antonio, Texas, is capitalized in equal shares by the United States and Mexico. NADBank provides new financing to supplement existing sources of funds and foster the expanded participation of private capital. Through FY 2001 EPA has provided \$339 million to the NADBank through the Border Environmental Infrastructure Fund, (BEIF) NADBank issues border grants for individual projects from the BEIF on the agency's behalf.

The United States Government has committed to funding \$700 million towards the Mexico Border project. Since fiscal year 1994, \$607.6 million has been appropriated, including significant funding for projects managed by the International Boundary and Water Commission and for border Tribal infrastructure projects.

Great Lakes

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...,” GLNPO is engaged in extensive coordination efforts with state, Tribal, and other Federal agencies, as well as with our counterparts in Canada. EPA has joined with states, Tribes, and Federal agencies that have stewardship responsibilities for the Lakes in developing a new Great Lakes Strategy. In addition to the eight Great Lakes States and interested Tribes, partners to the plan include the Army Corps of Engineers (Corps), the Coast Guard, the Fish and Wildlife Service (USFWS), the U.S. Office of Geological Survey, the National Oceanic and Atmospheric Administration (NOAA), and the Natural Resources Conservation Service (NRCS). The Strategy joins environmental protection agencies with natural resource agencies in pursuit of common goals. These organizations meet at GLNPO's annual Great Lakes Planning Meeting to plan and prioritize near-term activities. GLNPO monitoring involves extensive coordination among these partners, both in terms of implementing the monitoring program, and in utilizing results from the monitoring to manage environmental programs. GLNPO's sediments program works closely with the states and the Corps regarding dredging issues. Implementation of the Binational Toxics Strategy involves extensive coordination with Great Lakes States. GLNPO works closely with states, Tribes, FWS, and NRCS in addressing habitat issues in the Great Lakes. EPA also coordinates with these partners regarding development and implementation of Lakewide Management Plans for each of the Great Lakes and for Remedial Action Plans for the 31 U.S./binational Areas of Concern.

Marine and Arctic Environments

EPA has a number of joint projects underway addressing radioactive and non-radioactive contamination threats to the Arctic environment and ecosystems, including Alaska and indigenous populations of the Arctic Rim. Domestic partners include the Department of Defense, Department of State, Agency for International Development. International partners are the Government of Norway (Ministry of Foreign Affairs) and the Government of Russia (Ministries of Atomic Energy and Transportation). Three projects address radioactive contamination from Northwest Russia. One, focuses on providing processing capacity for low-level liquid radioactive waste in Murmansk, Russia., two other projects address the safe storage of spent nuclear fuel from decommissioned Russian nuclear submarines. Non-radioactive contamination concerns are being addressed through projects under the eight nation Arctic Council (Finland, Denmark/ Greenland, Norway, Sweden, Canada, Iceland, Russia) and the Arctic Monitoring and Assessment Program (AMAP) under the Council.

The major goals of the Russia PCB project are to assist the Russian Federation in phasing out its manufacture and use of PCBs, to reduce the release of PCBs and their subsequent transport to the Arctic, and to encourage the Russian Federation to begin using PCB substitutes. The ultimate objective is to provide a technical foundation for Russian acceptance of the Protocol on POPs under the Long-Range Transport of Air Pollutants (LRTAP) Convention, as well as the Stockholm Convention on POPs. The Dioxins and Furans Project and the Obsolete Pesticides Projects are addressing the other problems that Russia has identified as obstacles to its acceptance of these international agreements and/or implementing instruments. Other aspects of the PCB work involve coordination or cooperation with HHS (Indian Health Service and Center for Disease Control), agencies of the State of Alaska and a number of Alaskan Native American organizations.

EPA works with the Department of State, NOAA, Coast Guard, Navy, and other Federal agencies in developing the technical basis and policy decisions necessary for negotiating global treaties concerning marine antifouling systems and invasive species as well as a Regional agreement for the Wider Caribbean Basin that will establish standards for domestic wastewater discharges and other land-based sources of marine pollution. Given the geographic scope of these agreements, the efforts involve multilateral negotiations with numerous governments.

Statutory Authorities

Clean Water Act
Clean Air Act
Toxic Substances Control Act
Resource Conservation and Recovery Act
Pollution Prevention Act
Federal Insecticide, Fungicide, and Rodenticide Act
Organotin Antifouling Paint Control Act
Annual Appropriation Acts

US-Canada Agreements

1997 Canada-U.S. Great Lakes Binational Toxics Strategy
1996 Habitat Agenda
1990 Great Lakes Critical Programs Act
1987 Great Lakes Water Quality Agreement
1987 Montreal Protocol on Ozone Depleting Substances
1978 Great Lakes Water Quality Agreement (GLWQA)
1909 The Boundary Waters Treaty
North American Free Trade Agreement

US-Mexico Agreements

North American Free Trade Agreement
LaPaz Agreement

Environmental Protection Agency

FY 2003 Annual Performance Plan and Congressional Justification

Reduction of Global and Cross-border Environmental Risks

Objective: Reduce Greenhouse Gas Emissions.

By 2010, U.S. greenhouse gas emissions will be substantially reduced through programs and policies that also lead to reduced costs to consumers of energy and reduced emissions leading to cleaner air and water. In addition, EPA will carry out assessments and analyses and promote education to provide an understanding of the consequences of global change needed for decision making.

Resource Summary (Dollars in Thousands)

	FY 2001 Actuals	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Reduce Greenhouse Gas Emissions.	\$149,610.2	\$145,293.6	\$136,953.4	(\$8,340.2)
Environmental Program & Management	\$101,170.3	\$96,767.2	\$98,104.8	\$1,337.6
Science & Technology	\$48,439.9	\$48,526.4	\$38,848.6	(\$9,677.8)
Total Workyears	347.1	317.3	303.9	-13.4

Key Program (Dollars in Thousands)

	FY 2001 Enacted	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Administrative Services	\$234.6	\$0.0	\$0.0	\$0.0
Climate Change Research	\$22,550.4	\$21,350.5	\$21,729.3	\$378.8
Climate Protection Program: Buildings	\$52,535.0	\$48,571.3	\$49,820.5	\$1,249.2
Climate Protection Program: Carbon Removal	\$997.8	\$1,549.7	\$1,576.3	\$26.6
Climate Protection Program: Industry	\$31,929.6	\$25,368.6	\$25,673.1	\$304.5
Climate Protection Program: International Capacity Building	\$5,501.7	\$6,982.8	\$7,086.5	\$103.7
Climate Protection Program: State and Local Climate Change Program	\$2,494.5	\$2,245.6	\$2,275.2	\$29.6
Climate Protection Program: Transportation	\$29,435.1	\$30,830.7	\$21,567.2	(\$9,263.5)
Congressionally Mandated Projects	\$1,371.9	\$750.0	\$0.0	(\$750.0)
Facilities Infrastructure and Operations	\$4,612.6	\$4,461.0	\$4,019.1	(\$441.9)
Legal Services	\$269.9	\$328.2	\$354.5	\$26.3
Management Services and Stewardship	\$2,525.1	\$2,855.2	\$2,851.7	(\$3.5)
Regulatory Development	\$65.8	\$0.0	\$0.0	\$0.0
Technical Cooperation with Industrial and Developing Countries	\$762.0	\$0.0	\$0.0	\$0.0

FY 2003 Request

EPA is meeting the U.S. climate change objectives by working in partnership with businesses and other sectors through programs that deliver multiple benefits – from cleaner air to lower energy bills – while improving overall scientific understanding of climate change and its potential consequences. In FY 2003, EPA expects to continue the significant accomplishments of its Climate Protection Programs (CPPs). The opportunity to save on our nation's \$600 billion annual energy bill over the next decade, while reducing air pollution, is tremendous. The opportunity to reduce greenhouse gas emissions is as great.

The core of EPA's climate change efforts are voluntary government/industry partnership programs designed to capitalize on the opportunities consumers, businesses, and organizations have to make sound investments in efficient equipment, policies and practices, and transportation choices. We currently expect that ten years from now more than half the nation's anthropogenic greenhouse gas emissions will come from equipment purchased between now and then. Thousands of equipment purchases are made every day, and often people buy the equipment that is the least efficient, thereby committing themselves to higher energy bills for 10 to 20 years at a time, depending upon the life of the equipment. At the same time, people often overlook the investment opportunities that the more efficient equipment represents, investment opportunities with the potential of more than double the return on investment of other common options (e.g., money markets, U.S. Treasury bonds).

EPA manages a number of efforts, such as the ENERGY STAR programs and the EPA Clean Automotive Technology (CAT) initiative, to remove barriers in the marketplace and to deploy technology faster in the residential, commercial, transportation, and industrial sectors of the economy. EPA programs do not provide financial subsidies. Instead, they work by overcoming widely acknowledged barriers to energy efficiency – lack of clear, reliable information on technology opportunities; lack of awareness of energy efficient products and services; lack of financing options to turn life cycle energy savings into initial cost savings for consumers; low incentives to manufacturers for efficiency research and development (R&D); and lack of awareness about more energy efficient transportation choices.

The Agency will continue activities that provide co-benefits to other countries and to the global commons. Global reductions in greenhouse gas emissions can be achieved by recognizing and providing support for in-country environmental issues, such as local air quality, energy access and efficiency, cleaner production, transportation alternatives, and solid waste management (for methane reduction).

Some of EPA's newest voluntary programs are particularly timely. These partnership programs will promote cleaner, more efficient energy supply through increased renewable energy and combined heat and power (CHP) applications. These "distributed energy" technologies continue to break the link between our nation's increased energy demand and air pollution. CHP and renewable power also help meet the growing need for decentralized, highly reliable power as our nation's electric grid ages. In FY 2002, the Agency began forming partnerships and initiated a number of transportation efforts focusing both on the industry and state and local sectors, including a

program to implement voluntary ground freight management practices as well as technologies that can substantially improve load scheduling and load matching logistics, reduce truck engine idling, and improve truck fuel efficiency.

Research

EPA's Global Change Research Program is an assessment-oriented program that evaluates the potential consequences of global change for human health, ecosystems, and social well-being in the United States. The Program's assessment process brings together groups of people with common interests and enables them to work together to address environmental concerns. Through workshops and other formal and informal interactions, those who may be affected by environmental change (the stakeholders), those who can provide scientific information about that change (researchers and assessors), and those who can respond to that change (resource managers and decision makers) communicate with each other. This interaction ensures that researchers and decision makers understand the issues of greatest concern to the stakeholders, and that stakeholders understand the scientific basis for research planning decisions. Through this process, assessors integrate insights from diverse research disciplines to address real-world questions. For example, stakeholders have expressed concern about an increase in the spread of certain diseases as a result of climate change. In response, assessors have integrated research on climate change, precipitation change, vegetation, rodent population, and the spread of diseases to determine if a warmer climate may lead to a greater risk of vector-borne disease. This methodology is now being used on an ongoing basis by public health officials in the Four Corners region of the Southwest.

Program Accomplishments

EPA has had substantial success across its CPPs and global change research efforts. Through FY 2001, EPA's CPPs (see Table 1) substantially reduced emissions of carbon dioxide and other greenhouse gases such as methane and perfluorocarbons (PFCs). Since the mid-1990s, these programs have reduced U.S. greenhouse gas emissions by more than 235 million metric tons carbon equivalent (MMTCE) below business-as-usual, equivalent to the emissions of 160 million cars for one year. At the same time, families and businesses saved an estimated \$24 billion on their energy bills and keeping roughly 550,000 tons of smog-forming nitrogen oxide (NO_x) pollution from entering the air. In FY 2001, EPA implemented new partnership programs aimed at reducing energy demand in the transportation sector.

Many of EPA's climate protection programs have locked in substantial energy and environmental benefits over the next decade. Since many of the investments promoted through EPA's climate programs involve energy efficient equipment with lifetimes of decades or more, the investments that have been spurred through 2001 will continue to deliver environmental and economic benefits through 2010 and beyond. EPA currently estimates that based on investments in equipment already made due to EPA's programs through 2001, *organizations and consumers across the country will net savings of more than \$60 billion through 2010, and greenhouse gas emissions will be reduced by more than 450 MMTCE through 2010* (cumulative reductions based upon estimated 2001 achievements). These programs continue to be highly cost-effective approaches for

delivering environmental benefits across the country. For every dollar spent by EPA on its technology deployment programs, these programs have reduced greenhouse gas emissions by more than 1.0 metric ton of carbon equivalent (3.67 tons of CO₂) and delivered more than \$75 in energy bill savings. This is based upon a cumulative reduction since 1995.

In addition to these benefits, the transportation research and development component of EPA's CPPs has produced important technological advancements that will generate substantial energy and carbon benefits in future years, while improving America's competitiveness.

In FY 2001 alone, the CPPs*:

- reduced greenhouse gas emissions by more than 65 MMTCE;
- reduced energy consumption by an estimated 80 billion kilowatt hours;
- successfully demonstrated 80 miles per gallon (gasoline equivalent) on a mid-size research chassis with a state-of-the-art diesel engine and an EPA-invented, patented, and developed hybrid drivetrain; and
- worked with 10 strategically selected countries in Asia, Africa, Latin America, and Eastern Europe to develop capacity to analyze the benefits of and/or implement sustainable, market-based activities/programs designed to reduce greenhouse gas emissions in a cost-effective manner.

* EPA is on track for each of these accomplishments. Final results will be available in calendar year 2002.

These are the four primary performance goals for EPA's CPPs under the Government Performance and Results Act (GPRA). There are also performance measures for key subparts of EPA's CPPs. Table 2 shows that EPA will meet or exceed many of these performance measures. Performance measures have not been met in two areas: transportation and industrial CO₂ programs. Both of these programs have undergone program restructuring and are expected to reduce greater greenhouse gas emissions in FY 2003 and beyond.

Table 1: EPA's Climate Protection Programs

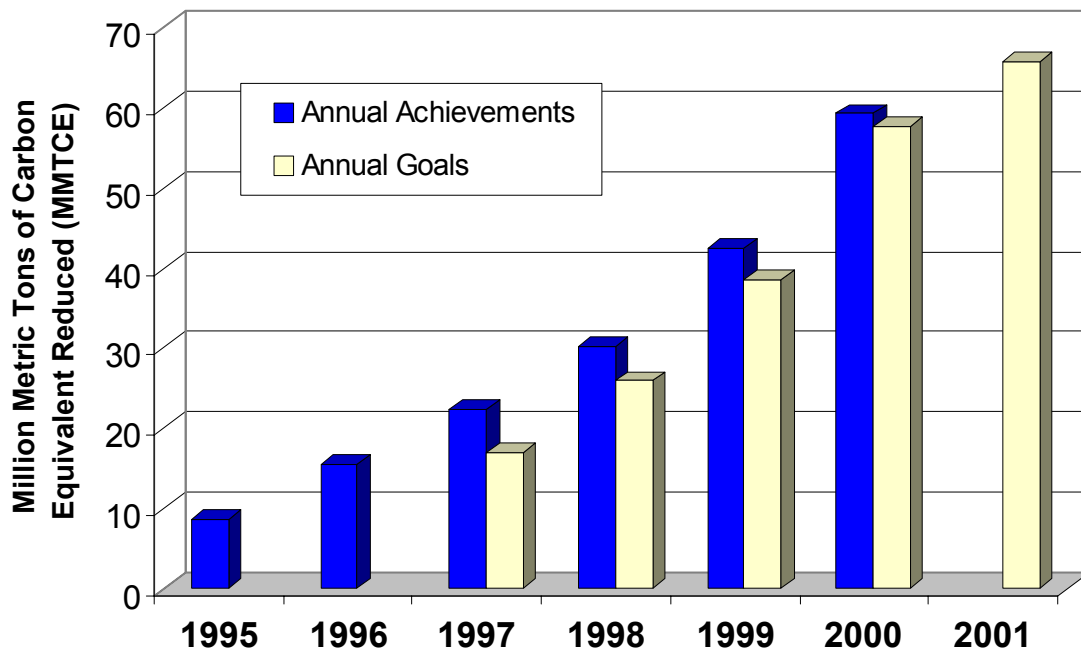
Sector	Program	Activity/Initiative
Buildings	ENERGY STAR	Buildings
		Labeled Products
		Homes
Industry	Carbon Reduction Programs (CO2)	ENERGY STAR for industry (formerly Climate Wise)
		Combined Heat and Power Partnership
		Green Power Partnership
		Industry Partnerships
		Waste Wise
	Methane Programs (CH4)	Natural Gas STAR Program
		Landfill Methane Outreach Program
		Coalbed Methane Outreach Program
		Agricultural Programs (Ruminant Livestock Outreach and AgSTAR)
		Landfill Rule
	Programs to Reduce High Global Warming Potential Gases (HFCs, PFCs, SF6)	Voluntary Aluminum Industrial Program
		PFC Emissions Reduction Partnership for the Semiconductor Industry
		SF6 Emissions Reduction Partnership for the Electric Power System
		SF6 Emissions Reduction Partnership for the Magnesium Industry
		Partnership with HCFC-22 manufacturers to reduce HFC-23 emissions
Significant New Alternatives Program (SNAP)		
Transportation	Transportation Efficiency Programs	Commuter Choice Partnership Programs
		SmartGrowth & Brownfields Policies Programs
		Transit
		Green Vehicle Labeling Program
		Clean Air Transportation Communities Program
		Ground Freight Transportation Initiative
		Variable Priced Vehicle Insurance Initiative
	Clean Automotive Technology (CAT)	Support Cooperative Research and Development Agreements (CRADAs) for Advanced Engine and Powertrains for Hydraulic Hybrid SUVs and Urban Delivery Vehicles
Carbon Removal		
State and Local Climate Change Outreach Program		
International Capacity Building		
Global Change Research		

Through FY 2001, EPA's CPPs have also:

- offset growth in greenhouse gas emissions above 1990 levels by about 20%;
- conserved enough energy to light 80 million homes for the year;
- prevented NOx emissions equivalent to the annual pollution from 100 power plants; and
- avoided greenhouse gas emissions equivalent to eliminating the pollution from about 45 million cars for the year.

EPA's climate change programs have met their greenhouse gas reduction goals through FY 2000, as shown in Figure 1, and continue to meet the challenge of substantially higher emissions reduction goals. Many of these programs have actually exceeded their specific goals for reducing greenhouse gas emissions and energy consumption, as shown in Table 2.

Figure 1. Overall Goals and Accomplishments for the Climate Protection Programs



The FY 2001 final results will be available in Spring 2002.

The programs have a number of accomplishments through the end of FY 2001 that are highlighted in Tables 3, 4, 5, and 6 for the buildings, industry, transportation and other sectors, respectively.

Table 2. Goals and Accomplishments for Performance Measures: 1997 through 2003¹

Program Area/ Key Gases	1997 Accomplished		1998 Accomplished		1999 Accomplished		2000 Accomplished		2001 ² Goal/Accomplished		2002 ³ Goal		2003 ³ Goal		
	kWh Saved (billion)	MMTCE reduced	kWh Saved (billion)	MMTCE reduced	kWh Saved (billion)	MMTCE reduced	kWh Saved (billion)	MMTCE reduced	kWh Saved (billion)	MMTCE reduced	kWh Saved (billion)	MMTCE reduced	kWh Saved (billion)	MMTCE reduced	
Buildings	21	4.4	35	7.2	61	12.5	74	15.2	80	15.0 ⁴ /16.3	na	17.2 ⁴	na	19.5 ⁴	
Industry	CO ₂	na	3.0	na	4.8	na	5.3	na	5.5	na	9.1 ⁴ /5.8	na	6.3 ^{4,6}	na	6.5 ^{4,6}
	CH ₄	na	4.8	na	5.9	na	8.3	na	13.8	na	15.1 ⁴ /15.2	na	16.3 ⁴	na	17.5 ⁴
	PFCs, SF ₆ , HFCs	na	8.5	na	10.4	na	15 ⁵	na	21.4 ⁵	na	18.2 ^{4,5} /24.1	na	21.9 ^{4,5}	na	25.6 ^{4,5}
Transportation	na	0.2	na	0.3	na	1.1	na	1.7	na	6.2 ⁴ /1.9	na	2.1 ^{4,6}	na	2.4 ^{4,6}	
State and Local	na	1.2	na	1.3	na	1.4	na	1.7	na	1.9 ⁴ /1.9	na	2.0 ⁴	na	2.0 ⁴	
Total	21	22.1	35	29.9	61	43.6	74	59.3	75 ⁴ /80	65.5 ⁴ /65.2	85 ⁴	65.8 ⁴	95 ⁴	73.5 ⁴	

¹Metrics are not applicable to CAT, International Capacity Building or Global Change Research. The accomplishments of many of EPA's voluntary programs are documented in *The Power of Partnerships: Energy Star and Other Voluntary Programs*, Climate Protection Partnerships Division 2000 Annual Report, EPA 430-R-01-009, July, 2001. Some program accomplishments from previous years may be different from those reported in last year's budget justification as new information from program partners is incorporated and program evaluation methodologies are refined.

²These results are estimates. Final results will be available in Spring 2002.

³2002 and 2003 goals are presented here as developed in 1997 for the Second National Communication to the U.N. Framework Convention on Climate Change (FCCC). They are currently under review as part of the process for preparing the Third National Communication to the Secretariat of the FCCC, reporting on national progress.

⁴GPRA performance measure

⁵These goals and accomplishments do not include EPA's efforts on self-chilling cans, which resulted in the avoidance of potentially significant emissions of HCFCs into the atmosphere.

⁶These goals have been revised to reflect major program restructuring. For example, the goals for the Transportation Program Area include GHG reduction goals for the Transportation Partner Program through 2001. The 2002 Transportation goal has been revised downward to reflect the elimination of the Transportation Partners Program. The revised estimates in each area are based on preliminary results submitted for the Third National Communication to the U.N. FCCC.

Table 3. Program Accomplishments for EPA's Buildings Initiatives Through 2001

<i>Program Area</i>	<i>Accomplishments</i>
ENERGY STAR Program	<p>The <u>ENERGY STAR Buildings Partnership</u> represents 17 percent of the U.S. building floor space.</p> <p>EPA has been successful with its public-sector work. With partnerships with more than 250 colleges and universities and over 220 school districts, including for example the Los Angeles Unified School District which alone has over 650 schools, EPA brings superior building performance into the classroom. Over 280 K-12 schools have earned the label.</p> <p>EPA continues to work with small businesses and organizations to help them lower their overhead through lower energy bills. Over 5,900 small businesses and organizations are working with ENERGY STAR.</p> <p>EPA worked with building owners to offer a new benchmarking tool that identifies the most efficient 25 percent of the commercial building stock with the ENERGY STAR label. EPA developed this tool for office buildings; K-12 schools were added in 2000. In 2001 EPA launched the ENERGY STAR label for grocery stores, hospitals, and hotels and is working to expand it to other key building types such as warehouses, post offices, and convenience stores.</p> <p>Also in the public sector, EPA worked with over 220 state and local governments and organizations to overcome key financing and budgeting barriers which continue to be a major hurdle to energy efficiency projects in the public sector. In 2001, EPA developed and delivered financing training (either directly or via the web) to 12 Federal departments and offices, 22 states, 61 local governments, and 69 school districts.</p> <p>ENERGY STAR now has over 80 commercial real estate partners representing over 2.6 billion square feet comprising an estimated 80 percent of the office properties market. In addition, in FY 2001 ENERGY STAR was endorsed by four influential commercial real estate industry associations including the National Association of Real Estate Investment Trust and the Society of Industrial and Office Realtors.</p>
	<p>The <u>ENERGY STAR label</u> is recognized as the national label for energy efficiency and many players (including retailers, utilities, NGOs, etc.) across the country are using the label to promote efficiency. The label has achieved more than 40% public awareness as of 2001.</p> <p>ENERGY STAR performance specifications were developed for new product categories including set-top boxes, traffic signals, dehumidifiers, water coolers, ventilation fans, ceiling fans, telephony, light commercial HVAC, and reach-in refrigerators and freezers.</p> <p>The program includes products that represent over 60% of energy use in the average household and can help families reduce their energy bills by up to \$400 per year with currently available products that also improve home comfort.</p> <p>More than 1,700 manufacturing companies have partnered with ENERGY STAR. They produce ENERGY STAR-labeled products across more than 30 product categories. More than 750 million labeled products have been purchased.</p> <p>EPA has engaged more than 100 utilities/energy service providers that serve approximately 50% of the households in the U.S. in promoting energy efficiency with the ENERGY STAR label.</p> <p>The program has partnered with more than 800 retailers to promote ENERGY STAR products in more than 7,000 storefronts across the country.</p> <p>An international agreement was finalized allowing Canada to implement an energy efficiency labeling program for office equipment modeled after ENERGY STAR.</p>
	<p>The <u>ENERGY STAR Homes</u> program includes more than 1,600 builder partners that have built over 25,000 labeled homes, locking in financial savings of more than \$7.5 million annually for homeowners.</p> <p>EPA continues to promote its <u>Home Improvement Program</u>, featuring a suite of tools and projects to help homeowners improve the energy performance of their homes during repair, remodeling or renovation. The program includes a web-based audit that recommends to homeowners the top five energy efficiency improvements that can be made to their homes and a home energy benchmark tool.</p> <p>EPA worked in partnership with more than 10 utilities and other companies to develop regional programs that promote improved duct sealing, improved home sealing, and overall improved home performance packages for the homeowner.</p>

Table 4. Program Accomplishments for EPA's Industry Initiatives Through 2001

<i>Program Area</i>	<i>Accomplishments</i>
Carbon Reduction Programs	<p><u>ENERGY STAR for industry</u> (formerly Climate Wise). EPA successfully integrated Climate Wise into the ENERGY STAR platform. The program now has about 500 partners representing 14% of the U.S. industrial energy use.</p> <p>The program continued to provide technical assistance to its partners based on the technical materials developed through the Climate Wise program and explored new technical tools with program partners that could assist companies in understanding better where cost-effective opportunities for energy efficiency improvements exist. As a result, EPA will pursue development of energy and productivity benchmarking tools at the level of the company and the level of the facility.</p>
	<p>EPA launched the national <u>Combined Heat and Power Partnership</u>, working with industrial partners to convert several hundred industrial boilers to clean, efficient, gas-fired CHP. The partnership worked with specific market segments, including district energy, industry, commercial buildings, and high power quality reliability applications.</p> <p>EPA recognized the second round of CHP Award-winners in 2001.</p> <p>EPA continued to explore opportunities for regulatory flexibility to recognize the environmental benefits of CHP applications, including issuance of draft guidance for NSR source determinations.</p>
	<p>EPA launched the <u>Green Power Partnership</u> which will work with 20 founding partners and local governments to encourage green power purchases.</p> <p>The partnership announced 40 new corporate or local government green power purchases.</p> <p>The partnership launched efforts with states to promote customer choice through electricity restructuring in an environmentally friendly manner.</p>
	<p><u>Industry Partnerships</u>. EPA continued to work with industry partners to help them better understand their greenhouse gas emissions and opportunities for cost-effectively reducing these emissions.</p> <p>EPA completed development of a corporate greenhouse gas inventory methodology and tracking mechanism.</p>
	<p><u>Waste Wise</u> now has more than 1,100 partners who have reported reductions of over 9 million tons of solid waste while saving more than \$300 million through the end of 1999 from waste prevention and recycling</p> <p>Waste Wise began working with the Federal sector, with 75 Federal organizations as members in 2001.</p> <p>WasteWise initiated a sector challenge on electronics waste reduction which now includes 34 partners.</p> <p>EPA worked with key industry, government and NGO players in the areas of electronics, carpets, and transport packaging to begin developing agreements with national waste reduction targets.</p>
Methane Programs	<p>The <u>Natural Gas STAR Program</u> represents 77% of transmission pipeline miles, 51% of distribution pipeline miles, 40% of natural gas production, and 58% of gas processing.</p> <p>The <u>Landfill Methane Outreach Program (LMOP)</u> assisted in the development of over 20 new landfill gas-to-energy projects (bringing the total to over 200) with an additional 140 projects under construction and expected to be online soon. The LMOP provided technical and marketing support to another 150 landfills and signed on 35 new partners, bringing the total LMOP partner base to 280.</p> <p>The <u>Coalbed Methane Outreach Program (CMOP)</u> helped reduce methane emissions through project development support at 23 project sites. CMOP provided high-quality, project-specific information to project developers.</p> <p>EPA assisted swine and cattle producers in developing waste management systems that produce farm revenues and reduce water and air pollution. About 16 million kWh/yr of renewable energy was produced from farms capturing methane to provide energy for local communities.</p>
Programs to Reduce High Global Warming Potential Gases	<p>EPA continued work with 10 of the 11 U.S. primary aluminum producers representing 22 of the 23 U.S. smelters increase reductions over our 2000 goal and to better understand the generation of PFCs in the smelting process and to quantify smelter-specific emissions.</p> <p>EPA expanded the electric power systems partnership to reduce SF₆ emissions to 64 partners representing over 50% of net generating capacity. More than 80% of SF₆ sales are to this sector.</p> <p>EPA expanded the magnesium (Mg) industry partnership to reduce SF₆ emissions to 16 partners representing 100% of primary Mg production and 70% of domestic casting capacity. (80% of US Mg emissions).</p> <p>EPA renewed its voluntary partnership with 20 U.S. semiconductor manufacturers representing 70% of the industry's emissions. In the new MOU, EPA's semiconductor partners have established a goal to reduce PFC emissions 10% below their 1995 baseline by 2010.</p> <p>EPA partners with 100% of the U.S. HCFC-22 producers. These partners use process optimization and abatement to reduce production by-product emissions of HFC-23, which is the most potent and persistent of the HFCs.</p> <p>SNAP reviewed and listed 31 substances as acceptable alternatives to ozone-depleting chemicals in over 125 end-uses for a combined total of over 400 acceptable alternatives listed; cooperated with the fire protection industry to revise National Fire Protection Association Standard 2001 on Clean Agent Halon Alternatives; and encouraged the development of new, less-emissive technologies including secondary loop refrigeration systems and adoption of responsible use practices by the fire protection industry for gases with high global warming potential.</p>

Table 5. Program Accomplishments for EPA’s Transportation Initiatives Through 2001

<i>Program Area</i>	<i>Accomplishments</i>
Transportation Efficiency	<p>EPA launched the Voluntary Ground Freight Initiative and the Variable Priced Insurance Initiative.</p> <p>GHG Emission reduction estimates completed for 3rd National Communication Report to the U.N. FCCC. Updated GHG inventory estimates were published on schedule, and work has started on a separate Transportation Sector GHG report.</p> <p>EPA held an international transportation and climate workshop in April 2001.</p> <p>EPA signed and is supporting over 200 Commuter Choice Partnership Agreements with a range of industries, businesses, universities, and state and local governments representing over 150,000 employees. In addition, a national network of employer recruiters has been established, and a working partnership with US DOT is in place.</p> <p>EPA is implementing the National SIP Land Use Policy and has partnered with 6 state and local governments to recognize the transportation emission reduction benefits of smart growth and voluntary land use policies. Two new analytic tools are being developed that will assist governments interested in quantifying the emission benefits associated with Transit Oriented Development and mixed use developments.</p> <p>Final pilot year for 60 communities implementing EPA/DOT’s “It All Adds Up to Cleaner Air.” Creation of more formal partnership program. Development of the Alliance for Clean Air and Transportation, a national partnership of Federal agencies and national health, transportation, industry and environmental organizations committed to developing consistent national messages around air quality and transportation. Initial year saw over 20 organizations joining the executive committee.</p> <p>EPA developed and launched the Clean Air Transportation Communities Program to spur innovation and measurable reductions in transportation-related emissions by decreasing vehicle miles traveled and increasing use of cleaner technologies. First 10 award recipients selected. Recipients will implement innovative pilot projects at the state, regional, local and Tribal level. These are two-year awards.</p>
Clean Automotive Technology	<p>EPA demonstrated 80 miles per gallon (gasoline-equivalent) on a mid-size research chassis with a state-of-the-art diesel engine and an EPA-invented, patented, and developed hybrid drivetrain.</p>

Table 6. Program Accomplishments for Other Initiatives Through 2001

<i>Program Area</i>	<i>Accomplishments</i>
Carbon Removal	<p>The carbon sequestration program continued to work collaboratively with the U.S. Department of Agriculture (USDA) on domestic pilot programs, designed to address major issues related to implementation of sequestration projects both domestically and internationally.</p> <p>EPA continued to enhance its state-of-the-art capability to evaluate the technical and economic potential of carbon sequestration in both the forest and agriculture sectors, and conducted key analyses on sequestration policy issues.</p> <p>EPA initiated efforts to better understand, quantify and resolve key scientific issues including those related to the ancillary impacts of carbon sequestration and indirect effects.</p>
State and Local Outreach Program	<p>EPA has 39 state partners, representing approximately 80% of U.S. carbon dioxide emissions.</p> <p>EPA increased state and local capacity to quantify greenhouse gas emissions and develop and implement actions to reduce greenhouse gases: 36 states have completed greenhouse gas inventories, 3 states (Oklahoma, Wyoming, West Virginia) initiated inventories in 2001; 21 states have developed greenhouse gas action plans, 2 states (Maryland, Rhode Island) initiated greenhouse gas action plans. EPA developed analytical tools to support future state greenhouse gas inventories.</p> <p>Twenty-two U.S. cities joined the “<i>Cities for Climate Protection Campaign</i>” bringing total U.S. participants to 109, with a combined population of over 44 million.</p> <p>EPA has funded 16 state and local demonstration projects throughout the U.S. since 1990. Projects completed or underway have achieved total emissions reductions of approximately 2 MMTCE per year.</p> <p>EPA completed and distributed over 4,200 copies of the EPA State and Local Climate Change Outreach Kit to educate stakeholders on the science, impacts, resources and solutions addressing climate change.</p> <p>EPA published the NOx Set-Aside Measurement and Verification Guidance.</p> <p>EPA continued to work with city and state governments to help them estimate the potential environmental benefits associated with heat island reduction measures.</p> <p>EPA published scientific assessment study results (state/regional sea level rise maps).</p> <p>EPA communicated with key audiences regarding climate change through publications, conference presentations, and an award-winning website.</p>

Table 6. Program Accomplishments for Other Initiatives Through 2001 (continued)

<i>Program Area</i>	<i>Accomplishments</i>
International Capacity Building	<p>EPA leveraged U.S. experience with market-based mechanisms to help other countries design effective market-based programs.</p> <p>EPA supported the development of rigorous bottom-up greenhouse gas inventories in 4 regions of Russia and in Kazakhstan, including energy fuel balances, and national estimates of selected sources such as coal mining; EPA projects in the countries of the former Soviet Union have reduced greenhouse gas emissions by more than a million metric tons of carbon equivalent in the last five years.</p> <p>EPA, with the Agency for International Development (AID) and DOE, assisted 26 developing countries that submitted their National Communications as required under the UNFCCC.</p> <p>EPA and the U.S. Initiative on Joint Implementation evaluated and approved 52 voluntary projects, involving over \$2 billion in potential investments, of which \$700 million has been committed, in more than 26 developing and transition countries.</p> <p>EPA and the U.S. Country Studies Program assisted 56 developing and transition countries inventory their GHG emissions and evaluate strategies for reducing GHG emissions as well as adapting to climate change.</p> <p>EPA established partnerships with key developing countries to share and transfer energy efficiency program models developed in the U.S. Current programs will reduce greenhouse gas emissions in 2010 by 8 MMTCE.</p> <p>EPA, in cooperation with AID, DOE, and the State Department, supported the Technology Cooperation Agreements Pilot Project with 7 developing countries. Existing programs are models for international technology transfer programs and will substantially reduce greenhouse gas emissions in key countries.</p> <p>EPA's Integrated Environmental Strategies Program, with cooperation from AID, assisted 8 developing countries to evaluate the environmental and human health benefits of technologies and policies for reducing greenhouse gas emissions. Four of these countries produced initial evaluations and implementation plans for multiple benefits strategies. EPA initiated a new international transportation outreach program to improve GHG inventories and advance mitigation strategies with developing countries.</p>
Global Change Research	<p>EPA determined the impacts of global change on coastal ecosystems in the Gulf Coast, Mid-Atlantic, and Great Lakes.</p> <p>EPA completed 3 assessments - Mid-Atlantic, Great Lakes, & Human Health- of the potential consequences of global change & climate variability for the USGCRP National Assessment.</p> <p>EPA assessed the potential impacts of climate change and variability for public health.</p>

Program Goals and Objectives for FY 2003 and Beyond

Despite the significant accomplishments of EPA's programs to date, there remain large opportunities to achieve further pollution reductions and energy bill savings from energy efficiency programs and greater use of cost-effective renewable energy. In the U.S., energy consumption causes more than 85 percent of the major air emissions such as NO_x, SO₂, and CO₂. At the same time, American families and businesses spend over \$600 billion each year on energy bills – more than we spend on education. Technologies are available today that can cut this energy use significantly. Other technologies are being developed that may provide even more dramatic opportunities – such as transferring the highly efficient hybrid powertrain components, originally developed for passenger car applications, to meet the more demanding size, performance, durability, and towing requirements of Sport Utility Vehicles (SUVs) and urban delivery vehicle applications, resulting in increased fuel economy.

Over the next several years, EPA will build upon its voluntary government/industry partnership efforts to achieve even greater greenhouse gas reductions by taking advantage of additional opportunities to simultaneously reduce pollution and energy bills. EPA will continue to break down market barriers and foster energy efficiency programs, products and technologies, cost-effective renewable energy, and greater transportation choices. EPA will continue to work closely with state and local partners to assess the air quality, health, and economic benefits of reducing greenhouse gas emissions and developing practical risk reduction strategies. It will establish

international partnerships that will link industrial efficiency, reduction of greenhouse gases, and sustainable development. In FY 2003, EPA's climate change programs are projected to:

- reduce greenhouse gas emissions from projected levels by more than 73.5 MMTCE annually through its programs, reducing the growth in greenhouse gas emissions above 1990 levels by about 20%;
- reduce U.S. energy consumption from projected levels by more than 95 billion kilowatt hours annually;
- reduce other forms of pollution, including air pollutants such as NO_x, particulate matter and mercury from energy efficiency and reduce water pollution (from better fertilizer management.) NO_x emissions will be reduced by over 205 thousand tons;
- contribute to over \$11 billion in net energy bill savings to consumers and businesses that use energy efficient products for the year;
- demonstrate technology for a hydraulic-hybrid SUV system that achieves at least 20% better fuel economy than the typical baseline vehicle (24.2 mpg based on a "typical" 20.2 mpg baseline SUV);
- provide more flexible and energy efficient alternatives for commuters and freight transporters, and reduce vehicle miles traveled by more than two billion miles;
- assist 10 key developing countries and countries with economies-in-transition in building their capacity to reduce emissions of greenhouse gases through cost-effective measures and participate actively in international discussions of climate protection and assist in the fulfillment of the U.S. obligations under the UNFCCC to facilitate technology transfer to developing countries;
- produce measurable international greenhouse gas emission reductions through clean industrialization partnerships with key developing countries;
- in close cooperation with USDA, identify and develop specific opportunities to sequester carbon in agricultural soils, forests, other vegetation and commercial products, with collateral benefits for productivity and the environment; and
- assess the consequences of global change on human health and ecosystems.

EPA will be working towards the following goals in each of the following program areas over the next ten years:

- Buildings: The Buildings Sector represents one of EPA's largest areas of potential, and at the same time is one of its most successful. In the buildings sector, EPA will expand upon the successful ENERGY STAR partnerships (including ENERGY STAR Labeling and the ENERGY STAR Buildings Program). EPA will work toward the goal of offsetting about 24% of the growth in greenhouse gas emissions above 1990 levels expected by 2010 in this sector. EPA's programs will contribute about 43 MMTCE annually in greenhouse gas reductions by 2010 while saving businesses and consumers more than \$14 billion. The efforts necessary in FY 2003 to continue to achieve these 2010 goals are detailed in Table 7.

- Industry: EPA will continue to build on the success of the voluntary programs in the industrial sector, focusing on reducing CO₂ emissions and continuing the highly successful initiatives to reduce methane emissions and emissions of the high global-warming-potential gases. EPA's goals for these efforts are: (1) greatly enhance the rate of energy and resource efficiency improvements in industry between now and 2010 (working with DOE); (2) cost-effectively return emissions of methane to 1990 levels or below by 2010; (3) cost-effectively limit emissions of the more potent greenhouse gases (HFCs, PFCs, SF₆); and (4) facilitate the use of clean energy technologies and purchases of renewable energy. EPA's goal is to deliver an estimated 85 MMTCE annually by 2010 from these efforts. The efforts necessary in FY 2003 to continue to achieve these 2010 goals are detailed in Table 8.
- Transportation: EPA will continue to grow its successful transportation efficiency initiatives including its voluntary Commuter Choice Partnership Program, Ground Freight Management Initiative, Clean Air Transportation Communities award program, and Smart Growth initiatives. These programs will deliver communities, commuters, and the freight delivery industry substantial energy savings and increased access to jobs, health care, education and recreation. EPA's Variable Priced Auto Insurance initiative also shows tremendous potential for partnering with the insurance industry commissioners to provide a voluntary incentive for less driving.

EPA will continue its Clean Automotive Technology (CAT) initiative to develop advanced, clean and fuel efficient automotive technology in accordance with the National Energy Policy (NEP) directive to use technological advances to better protect the environment and save energy. EPA has demonstrated the potential of its break-through technologies to provide dramatic fuel economy improvement in cars, and this technology can be transferred to SUVs and urban delivery vehicles and will have an unprecedented impact on fuel consumption. CAT includes research activities and Cooperative Research and Development Agreements (CRADAs) with the automotive industry covering both SUVs and urban delivery vehicles. This initiative will help enable the transfer of patented technology to SUVs and urban delivery vehicles – a critical target for improving the U.S. fleet miles per gallon.

During FY 2003, CAT will continue to meet its CRADA commitments by developing advancements for engine and powertrain technology for hydraulic hybrid vehicles. EPA will collaborate with its CRADA partners to transfer the unique EPA-patented, highly efficient hybrid engine and powertrain components, originally developed for passenger car applications, to meet the more demanding size, performance, durability and towing requirements of SUVs and urban delivery vehicle applications while being practical and affordable with ultra low emissions and ultra high fuel efficiency. The successful technology development under CAT has laid the foundation for cost-effective commercialization of high fuel economy/low emission vehicles for delivery to market between 2005 and 2010. The R&D development under the CAT initiative has stringent criteria emission goals supporting EPA's clean air mission through new stringent emission standards. This initiative will yield technologies that will allow future SUV and urban

delivery vehicles to be simultaneously very efficient and very clean. On a per-vehicle basis, these technologies will generate a 50% reduction in greenhouse gas emissions relative to current baseline vehicles.

EPA's Clean Automotive Technology initiative will provide the following benefits.

- Allow EPA to develop unique engine and hybrid technology for SUVs and urban delivery vehicles, resulting in increased SUV fuel efficiency of 30% (from 2001 baseline of 20.2 mpg) by 2006 and up to 100% by 2010.
- With the successful development and adoption of this cost effective and practicable technology (facilitated by complementary policies), we estimate the eventual market penetration for this technology to be up to 40-50% in 2020.
- This would result in potential annual fuel savings of up to 8 billion gallons (4% below business-as-usual) or the rough equivalent 25 MMTCE reduced in 2020 (from light duty trucks including SUVs.)

EPA will also support DOT and the Treasury Department in implementing any change to the CAFÉ standards and vehicle tax credits for hybrid and fuel-cell vehicles.

The efforts necessary in FY 2003 to achieve these goals are detailed in Table 9.

- Carbon Removal: EPA will build domestic and international consensus around the integration of carbon sequestration activities into a comprehensive climate strategy. Carbon can be sequestered through changes in both forestry and agricultural practices, but these actions are not currently well understood or accepted in many sectors of the international and environmental communities. EPA is working collaboratively with USDA to address the misperceptions regarding carbon sequestration and to ensure that this important mitigation option is developed in an environmentally sound and economically efficient way. EPA and USDA will identify and develop specific opportunities to sequester carbon in agricultural soils, forests, other vegetation and commercial products, with collateral benefits for productivity and the environment. EPA's goal is to achieve a carbon removal potential of up to 25 MMTCE by 2010. The efforts necessary in FY 2003 to achieve these 2010 goals are detailed in Table 10.
- State and Local: States and localities have a significant and important role in reducing greenhouse gases, provided they are equipped with the tools they need to integrate climate change into their daily decisions. The State and Local program responds to this need by providing guidance and technical information about the air quality, health, and economic benefits of reducing greenhouse gas emissions and developing practical risk reduction strategies. EPA will continue its efforts to build capacity and to provide state and local governments with technical, outreach and/or education services about climate change impacts, mitigation and adaptation, and related issues so that state and local governments

may more effectively address their environmental and economic goals in a comprehensive manner. These efforts are detailed in Table 10.

- International Capacity Building: EPA is working with a number of key developing countries on a voluntary basis to help them: 1) design and implement programs to increase the use of low and zero greenhouse gas technologies; 2) identify, evaluate and implement strategies for achieving multiple social and health or economic benefits while reducing greenhouse gas emissions; 3) design market-based systems to facilitate commitments by these countries under the FCCC as well as the infrastructure necessary to ensure compliance; and 4) accurately assess GHG emissions from the transportation sector and implement less energy intensive transportation strategies. Over the next ten years, EPA's goals are to: 1) catalyze significant increases in voluntary, market-driven programs for increasing the use of low and zero greenhouse gas technologies; 2) achieve the full integration of climate considerations into countries' development plans; and 3) establish the technical basis for major developing countries to make significant commitments under the Climate Convention. The efforts necessary in FY 2003 to meet these goals are detailed in Table 10.
- Global Change Research: EPA is one of ten Federal agencies contributing to the National Assessment activities organized through the U.S. Global Change Research Program (USGCRP). The National Assessment is an ongoing process mandated by Global Change Research Act of 1990, with periodic reports to Congress which began in FY 2000 and occur not less than every four years thereafter. In FY 2003 the Global Change Research Program will continue to support the ongoing U.S. National Assessment and other related USGCRP assessment activities.

Consistent with the EPA's *Global Change Research Strategy*, which articulates the program's long-term goals for developing comprehensive assessments of global change issues and the research to support such efforts, the effects of stressors such as climate change, land use change, and UV-B radiation will be investigated in FY 2003. This research will focus on building the capacity to assess global change impacts on air quality by downscaling meteorological data to regional scales and quantifying the effects of advanced fuel/vehicle combinations. Other components of these research and assessment activities will focus on producing an assessment report in FY 2003 on the potential effects of climate change on weather-related morbidity and reporting on interactive effects of UV-B and temperature on corals. To help assess impacts of UV-B on ecosystem and human health, EPA will continue to operate the UV-B monitoring network.

The particular areas of focus for the research and assessment activities of the Global Change Research Program are: (1) human health; (2) air quality; (3) water quality; and (4) aquatic ecosystem health. These activities will develop integrated human health and ecosystem health assessments. In FY 2003, the program will continue to assess the potential consequences of:

- Changes in extreme weather (heat and cold) for human mortality and morbidity;
- Changes in air quality;
- Climate and land-use changes on water and vector-borne diseases;
- Climate change on aquatic ecosystems; and
- Climate change on water quality (pollutants and microbial pathogens).

Significant FY 2003 research products are detailed in Table 10.

Table 7. Buildings Programs: Description of Planned Activities Within FY 2003 Budget Request	
ENERGY STAR Buildings	<p>Actively promote EPA’s new buildings benchmarking tool and work with building owners and managers to benchmark a total of 29,000 buildings across office buildings, schools, Federal and state facilities, retail spaces, hotels/motels and post offices.</p> <p>Award 2,750 additional ENERGY STAR labels to buildings that reach a benchmark score between 75 and 100.</p> <p>Expand building energy performance benchmarking and outreach to five additional building and facility types providing benchmarking capabilities for more than 80% of the total U.S. floor space.</p> <p>Continue to actively recruit new small businesses and organizations into ENERGY STAR for small business to reach over 7,000 participants by the end of 2003.</p> <p>Expand public sector work to increase the number of partnerships with schools and universities and state and local governments to over 1200.</p> <p>Expand work to improve the efficiency of the Federal government – work with other agencies to implement key pieces of the Federal Executive Order on building energy efficiency, particularly focusing on assisting agencies to benchmark their buildings and to procure energy efficient products.</p>
ENERGY STAR Products	<p>Develop and implement a new public awareness campaign on energy efficiency to achieve 50% recognition of the ENERGY STAR label in the U.S.</p> <p>Coordinate with utility and state partners representing more than 65% of U.S. households in the design and operation of effective state-level energy efficiency programs.</p> <p>Review five new product categories such as vending machines commercial food service equipment, and air purifiers for potential expansion of the ENERGY STAR label.</p> <p>Enhance ENERGY STAR labeled product quality through a review of performance specifications for five product categories such as office equipment and consumer electronics.</p> <p>Continue working with retailers and equipment contractors to ensure that consumers receive clear information when in the market to purchase products.</p> <p>Continue working in partnership with the European Community and Canada in implementing an energy efficiency labeling program for office equipment modeled after ENERGY STAR.</p> <p>Promote the purchase of about 160 million ENERGY STAR labeled products in 2003.</p>
ENERGY STAR Homes	<p>Over 50,000 new homes are expected to be constructed as ENERGY STAR in 2003.</p> <p>Promote ENERGY STAR Labeled New Homes in 15 geographic areas.</p> <p>Expand ENERGY STAR to include 80% of the housing stock of the national builders, Pulte, Ryan and Centex.</p> <p>Expand ENERGY STAR in the modular housing industry to include 50% of their housing stock.</p> <p>Achieve 50% penetration of ENERGY STAR in the manufactured housing industry.</p> <p>Promote ENERGY STAR to state and local housing authorities as the platform for their affordable housing programs.</p> <p>Expand the national Duct and Home Sealing Program for existing homes.</p> <p>Expand a whole house upgrade program that encourages home owners to consider energy efficiency improvements when performing whole-house renovation to geographic areas that can provide suitable contractor infrastructure.</p> <p>Promote benchmarking as a major tool to spur homeowners to make energy efficiency home improvements.</p>

**Table 8. Industry Programs: Description of Planned Activities
Within FY 2003 Budget Request**

ENERGY STAR for industry (formerly Climate Wise)	<p>Expand the ENERGY STAR program for industry to more than 440 industrial partners.</p> <p>Enhance technical assistance provided to the industrial sector by developing energy and related productivity benchmarks of industrial plant performance for five additional U.S. industries.</p> <p>Expand the energy peer exchange networking opportunities for U.S. industry and the ENERGY STAR partners by holding three national networking meetings.</p> <p>Conduct two industrial sector focus sessions to recruit two industrial sectors to partner with ENERGY STAR to improve their energy performance.</p>
Combined Heat and Power Initiative	<p>Implement national CHP Partnership Program. The Partnership Program will work with several hundred industrial coal-fired boilers in specific market segments for conversion to clean, efficient gas-fired CHP.</p> <p>Develop more specific permitting guidance for CHP projects.</p> <p>Promote recognition of CHP's benefits in environmental regulations.</p>
Green Power Initiative	<p>Implement Green Power Partnership Program. The program will work with founding partners and local governments to remove market barriers to renewable ("green") power purchases. The program will work with over 100 corporate/local government green power purchases, allowing companies to receive recognition for the environmental benefits of their purchases.</p> <p>Continue efforts working with states to promote consumer choice through electricity restructuring in an environmentally friendly manner.</p>
Industry Partnerships	<p>Continue efforts with industry partners to help them better understand their greenhouse gas emissions and opportunities for cost-effectively reducing these emissions.</p> <p>Continue to improve greenhouse gas tracking guidelines for industry.</p>
Waste Wise	<p>Expand WasteWise to include 1,400 partners.</p> <p>Continue to provide direct technical assistance for resource management, a performance-based contracting approach to overcome market barriers to waste reduction in the waste service industry.</p> <p>Continue Product Stewardship as a comprehensive national approach for electronics recycling with tangible industry commitments and state support, leading to measurable increases in electronics recycling and associated climate benefits. In addition, continue to pursue national targets for carpet recovery and meaningful increases in packaging recycling rates.</p> <p>Continue waste-related Greenbuildings efforts in the areas of criteria development and WasteWise recycled-content building challenges. EPA will spur demand for recovered materials by supporting materials and improved waste management for Greenbuilding programs, partnering with industry and states, and responding to request for technical assistance.</p> <p>Work with stakeholders in developing a comprehensive waste sector strategy for greenhouse gas reductions.</p>

**Table 8. Industry Programs: Description of Planned Activities
Within FY 2003 Budget Request
(continued)**

Methane Programs	<p>Expand the Natural Gas STAR program in all sectors to represent 85% of gas transmission pipelines, 59% of distribution service connections, 46% of domestic gas production, and 70% of gas processing.</p> <p>Expand EPA's Coalbed Methane Outreach Program (CMOP) to work with key stakeholders to expand the market for new greenhouse gas reduction technologies, including flares at wells producing medium quality gas and combustion technologies appropriate for mine ventilation air. EPA will continue to provide technical assistance to mining operations as well as monitor and analyze the results from two demonstration projects.</p> <p>Expand the Landfill Methane Outreach Program (LMOP) to assist a total of 233 landfills with gas utilization projects, to promote newer energy applications, and to increase methane recovery efficiency at existing projects.</p> <p>In the agriculture sector, continue expansion of methane-reducing technologies, such as anaerobic digesters, to help ensure clean water and air for the livestock sector.</p>
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<p>Programs to Reduce High Global Warming Potential Gases</p>	<p>The Voluntary Aluminum Industry Partnership (VAIP) will continue to deliver reductions, with VAIP participants reducing the industry's emissions of PFCs by at least 45% percent from the 1990 baseline year.</p> <p>Work with the U.S. semiconductor partners to achieve their 10% PFC emissions reduction goal by 2010 from their 1995 baseline.</p> <p>Continue to build the SF₆ Emissions Reduction Partnership for Electric Power systems (utilities) to include partners representing 60% of the industry's net generating capacity.</p> <p>Expand participation in the SF₆ Emission Reduction Partnership for the Magnesium Industry to represent greater than 80% of U.S. industry emissions. Facilitate global information sharing to achieve cost effective emission reductions of 0.3 MMTCE.</p> <p>Maintain an effective partnership with HCFC-22 chemical manufacturers to reduce emissions of HFC-23.</p> <p>Expand the stewardship programs to reduce high global-warming-potential emissions from other key sources such as the military and ODS replacement industries.</p> <p>SNAP expects to review and list 10 alternatives to ozone-depleting substances, focusing on the identification of safe and energy-efficient substitutes, including HFCs, for HCFCs in various sectors.</p>
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**Table 9 . Transportation Programs: Description of Planned Activities
Within FY 2003 Budget Request**

<p>Transportation Efficiency</p>	<p>Continue implementation of the Commuter Choice Partnership Program – build national business partnership program that takes advantage of recent tax code changes that provide financial incentives for green commuting options. Maintain over 300 partners and extend to over 1,000 partners.</p> <p>Expand implementation of the Ground Freight Management Initiative by increasing number of voluntary partnerships with freight industry to implement energy efficient technologies, freight management practices, and infrastructure opportunities (including E-commerce) that substantially reduce GHG and criteria air pollutants.</p> <p>Create and launch Green Transportation Outreach Program. Create & implement program which is on par with Energy Star – quick and easy way to differentiate clean from dirty transport: commuting, fuels, vehicles including vehicle labeling, etc.</p> <p>Continue implementation of Variable Priced Insurance Initiative through increased partnering with insurance industry. Work with automobile manufactures to integrate GPS systems with variable-price insurance options.</p> <p>Expand implementation of the Clean Air Transportation Communities Program. Catalyze and support community innovations that result in measurable reductions in VMT and cleaner technologies. Maintain 10 state and local projects and expand to include an additional 10 projects.</p> <p>Promote Smart Growth through the newly finalized SIP Land Use Guidance – Maintain 5 state and local partnership efforts and partner with an additional 5 states to further Smart Growth and Air Quality goals.</p> <p>Continue Transportation Planning Partnerships to: 1) integrate induced travel estimates into metropolitan transportation plans; 2) establish regional methodology for capturing land use air quality benefits; and (3) undertake educational efforts to promote tools that will enhance smart growth efforts and transportation equity across U.S.</p> <p>In partnership with DOT, assess and develop adaptation strategies to address the impact of sea-level rise and increased storm events on transportation infrastructure.</p> <p>Continue implementation of the Outreach/Public Education Programs TRAQ Center and “It All Adds Up to Cleaner Air” -- Increase public awareness of Transportation/Air Quality Connection. Continue support for state-of-the-art website for multi-state, state, local, Tribal transportation/air quality professionals.</p> <p>Establish a partnership program with states, localities and industry to recognize significant progress on the use of alternative fuel vehicles (AFVs). EPA, in cooperation with DOT and DOE, will promote and encourage the use of dedicated, clean AFVs, such as compressed natural gas (CNG), electric and fuel-cell vehicles.</p> <p>Continue to fulfill statutory obligations in the fuel economy arena, which includes administering the fuel economy labeling, gas guzzler, gas mileage guide, and CAFÉ programs in conjunction with other government agencies.</p> <p>Develop projects to reduce diesel idling time at truck stops and along highways. EPA will partner with states and manufacturers of idling control devices to help install idle control technologies on trucks and at truck stops that could save one gallon of diesel fuel for each hour a vehicle idles.</p> <p>Conduct outreach efforts to promote public awareness of and to implement future enhancements to the Green Vehicle Guide Web Site that was launched in 2000.</p>
<p>Clean Automotive Technology (CAT)</p>	<p>Continue engineering programs to transform the highly efficient light-duty engine and hybrid powertrain components to meet the more demanding size, performance, and towing requirements of personal Sport Utility Vehicles (SUVs) and urban delivery vehicles while demonstrating compliance with the Tier II and 2007 emission standards for diesel-cycle engines.</p>

**Table 10. Other Programs: Description of Planned Activities
Within FY 2003 Budget Request**

Carbon Removal	<p>Continue to collaborate with USDA on the pilot projects and determine the viability of various carbon sequestration activities as quantifiable means of limiting greenhouse gas emissions.</p> <p>Continue work on enhancing the ability of major macroeconomic models to evaluate the economic value of carbon sequestration and fully appreciating the role of carbon sequestration in addressing climate change.</p> <p>Bring together leading experts from government, industry, and the research community to address several difficult issues related to sequestration projects, including permanence, leakage, monitoring, and verification.</p> <p>Enhance efforts to better quantify the ancillary impacts of carbon sequestration.</p> <p>Work with stakeholders in the forestry and agriculture sectors to promote the development of environmentally sustainable and economically attractive carbon sequestration projects domestically and internationally.</p>
State and Local	<p>Continue to assist state and local governments in initiating and updating greenhouse gas inventories assessing climate change policy impacts on state and local economies.</p> <p>Assess and disseminate information about the multiple benefits of greenhouse gas mitigation, including environmental, health, energy, and economic benefits.</p> <p>Finalize and distribute new tools and models that build understanding of the broader benefits of climate protection.</p> <p>Integrate GHG emission reduction strategies in State Implementation Plans (SIPs), for states that want to provide credits for GHG reductions.</p> <p>Develop tools to facilitate voluntary adoption of heat island reduction activities, including ways to integrate them into in SIPs.</p> <p>Continue to build state and local capacity to address climate change through improved outreach tools and products, such as through improvements to the EPA Global Warming Site, creation of a best practices clearinghouse to promote multi-pollutant emission reduction strategies (e.g., energy efficiency, sustainability, clean energy, and other GHG mitigation measures), an updated catalogue of state legislative activity related to greenhouse gases, and the identification and implementation of additional demonstration projects.</p> <p>Translate key scientific findings into a format more readily understandable to the public.</p> <p>Increase awareness of global, regional, and local impacts of climate change for targeted groups, including outdoor enthusiasts, coastal communities, and decision makers in key business sectors. Gather stakeholder input to develop performance metrics and evaluate effectiveness of communication.</p> <p>Develop risk reduction strategies to encourage effective public response to climate change, including development of a strategic coastal response program.</p>
International Capacity Building	<p>Continue and expand cooperation with China, Mexico, Brazil, Korea, South Africa, and India.</p> <p>Create an air quality and transportation policy toolkit which, in cooperation with the World Bank and other partners, would be shared with 12-16 countries.</p> <p>Build the capacity in 4-5 major emitter countries (China, India, Russia, Brazil, and Indonesia) to develop reliable emission inventories in support of sustained emissions reduction strategies.</p> <p>Enhance capacity for energy and GHG audits for selected industrial sectors (such as cement, iron, and steel) in 4-5 major emitter countries.</p> <p>Establish regional energy and GHG information networks in three major regions of the world.</p> <p>Build regional centers of financial expertise in Russia and China for climate and energy projects.</p> <p>Assess health benefits, and design of compliance infrastructure and market-based mechanisms, in order to increase incentives and capacities for a more level environmental playing field internationally.</p> <p>Enhance international expert networks and cooperate with other organizations such as AID, the World Health Organization, UNEP, the World Bank, the Global Environment Facility, and state and local government partners in the U.S. to expand development and application of capacity for quantifying multiple benefits and to promote implementation of clean technology strategies.</p> <p>Enhance capacity with partners in key developing countries, and promote implementation of voluntary programs and market-based mechanisms to expand utilization of clean technologies and greenhouse gas emissions reductions through market transformation.</p> <p>Work with export credit agencies, international organizations, and commercial finance institutions to identify and overcome barriers to commercial investment in clean technologies in developing countries.</p>
Global Change Research	<p>EPA will produce a final, comprehensive assessment report which quantifies the potential effects of climate change on weather-related morbidity.</p> <p>In support of the air quality assessments, EPA will produce an interim assessment of how technological changes may affect emissions of ozone precursors and PM.</p> <p>EPA will produce a preliminary analysis of meteorological data and air quality using statistical methods.</p>

FY 2003 Change from FY 2002 Enacted

S&T:

- (-\$750,000) The FY 2003 request is \$750,000 below the FY 2002 Enacted budget level due to a Congressional earmark received during the FY 2002 appropriations process which was not included in the FY 2003 President's Request.
- (-\$9,300,000) Of the original \$26,400,000 in the Partnership for a New Generation of Vehicles (PNGV) program, EPA will target \$17,100,000 for work with our CRADA partners under the Clean Automotive Technology (CAT) initiative to support continued development of unique engine and hybrid technology for SUVs and urban delivery vehicles, with no compromise in performance, safety, or emissions. However, the \$9,100,000 reduction will eliminate work on high-efficiency renewable fuel engines, as well as the development of a production prototype 85 mpg family-size.

Research

S&T

- (+4,194,600, +1.0 FTE) Resources within this Objective will be shifted from human dimensions research to research focusing on the effects of global change on air quality, and the effects of global change on aquatic ecosystems. The air quality research will involve the development of models and methodologies for analyzing the consequences of global change on regional air quality, including downscaling global meteorology to regional meteorology; developing models and methodologies to address temporal and spatial scale issues for regional emissions drivers; and development of techniques to link technological change to changes in regional and local emission inventories. The aquatic ecosystem research will involve the development of scenarios and tools to support planned assessments of the impacts of global change on aquatic ecosystems. This research will include development of ecologically relevant scenarios of land use change; pathways from ecological functioning to aquatic ecosystem goods and services; human responses to global change; effects of global change on the distributions of invasive species; and effects of changing temperature, precipitation, land use, UV radiation and sea level rise on multiple aquatic ecosystems.
- (-\$4,194,600, -1.0 FTE) This planned decrease within the Objective is a shift from human dimensions research and assessment activities, completed in FY 2002, to ecosystem and human resilience to global change, and research focusing on the consequences of global change on air quality.
- (+\$255,200, +2.0 FTE) This increase will supplement ongoing research and assessment activities which contribute to the Second National Assessment. In particular, these activities will include an examination of the potential regional effects of global change (especially climate change and climate variability) on ecosystem health and ecosystem services in the United States. Particular

attention will be given to the direct and indirect effects of global change of aquatic ecosystems.

Annual Performance Goals and Measures

Reduce Greenhouse Gas Emissions

- In 2003 Greenhouse gas emissions will be reduced from projected levels by approximately 73.5 MMTCE per year through EPA partnerships with businesses, schools, state and local governments, and other organizations thereby offsetting growth in greenhouse gas emissions above 1990 level by about 20%.
- In 2002 Greenhouse gas emissions will be reduced from projected levels by approximately 65.8 MMTCE per year through EPA partnerships with businesses, schools, state and local governments, and other organizations thereby offsetting growth in greenhouse gas emissions above 1990 level by about 20%.
- In 2001 The date for this annual performance goal will not be finalized until mid 2002.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Annual Greenhouse Gas Reductions - All EPA Programs	6/30/02	65.8	73.5	MMTCE
Greenhouse Gas Reductions from EPA's Buildings Sector Programs (ENERGY STAR)	6/30/02	17.2	19.5	MMTCE
Greenhouse Gas Reductions from EPA's Industrial Efficiency/Waste Management Programs	6/30/02	6.3	6.5	MMTCE
Greenhouse Gas Reductions from EPA's Industrial Methane Outreach Programs	6/30/02	16.3	17.5	MMTCE
Greenhouse Gas Reductions from EPA's Industrial HFC/PFC Programs	6/30/02	21.9	25.6	MMTCE
Greenhouse Gas Reductions from EPA's Transportation Programs	6/30/02	2.1	2.4	MMTCE
Greenhouse Gas Reductions from EPA's State and Local Programs	6/30/02	2.0	2.0	MMTCE

Baseline: The baseline for evaluating program performance is a forecast of U.S. greenhouse gas emissions in the absence of the Climate Change Action Plan programs. The baseline was developed as part of an interagency evaluation of the Climate Change Action Plan in 1997, which built on a similar baseline forecast that was developed in 1993 for the Climate Change Action Plan. The updated baseline includes energy forecasts and economic growth projections. The baseline is discussed at length in the Climate Action Report 1997, which includes a discussion of differences in baselines between the original Climate Change Action Plan and the 1997 baseline update. The baseline is currently under review as part of the interagency evaluation process for preparing the Climate Action Report 2001.

Reduce Energy Consumption

- In 2003 Reduce energy consumption from projected levels by more than 95 billion kilowatt hours, contributing to over \$11 billion in energy savings to consumers and businesses.
- In 2002 Reduce energy consumption from projected levels by more than 85 billion kilowatt hours, contributing to over \$10 billion in energy savings to consumers and businesses.
- In 2001 The data for this annual performance goal will not be finalized until mid-2002.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Annual Energy Savings - All EPA Programs	On track	85	95	Billion kWh

Baseline: The baseline for evaluating program performance is a forecast of U.S. greenhouse gas emissions in the absence of the Climate Change Action Plan programs. The baseline was developed as part of an interagency evaluation of the Climate Change Action Plan in 1997, which built on a similar baseline forecast that was developed in 1993 for the Climate Change Action Plan. The updated baseline includes energy forecasts and economic growth projections. The baseline is discussed at length in the Climate Action Report 1997, which includes a discussion of differences in baselines between the original Climate Change Action Plan and the 1997 baseline update. The baseline is currently under review as part of the interagency evaluation process for preparing the Climate Action Report 2001.

Clean Automotive Technology

In 2003 Transfer hybrid powertrain components, originally developed for passenger car applications, to meet size, performance, durability, and towing requirements of Sport Utility Vehicle and urban delivery vehicle applications with an average fuel economy improvement of 20% over the baseline.

In 2002 Transfer hybrid powertrain components, originally developed for passenger car applications, to meet size, performance, durability, and towing requirements of Sport Utility Vehicle and urban delivery vehicle applications with an average fuel economy improvement of 15% over the baseline.

In 2001 Transfer hybrid powertrain components, originally developed for passenger car applications, to meet size, performance, durability, and towing requirements of Sport Utility Vehicle and urban delivery vehicle applications with an average fuel economy improvement of 10% over the baseline

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Fuel Economy of EPA-Developed SUV Hybrid Vehicle over EPA Driving Cycles Tested	22.2	23.2	24.2	MPG

Baseline: The average fuel economy of all SUVs sold in the US in 2001 is 20.2 mpg. Values for 2001, 2002, and 2003 represent 10%, 15%, and 20% improvements over this baseline, respectively. The long-term target is to demonstrate a practical and affordable powertrain that is 30% more efficient by 2005, and 100% more efficient by 2010.

Research

Global Change Research - Human Health and Ecosystems

In 2003 Assess the potential effects of climate change on weather-related morbidity.

In 2003 Build the capacity to assess global change impacts on air quality by downscaling meteorological data to regional scales and quantifying the effects of advanced fuel/vehicle combinations.

In 2002 Complete all contributing research and a report on the problem formulation phase of an assessment of the consequences of climate change on human health -- specifically, weather-related morbidity -- at the national and regional levels.

In 2002 Complete the problem formulation phase of an assessment of the consequences of global change on air quality at a regional level.

In 2002 Complete the problem formulation phase of an assessment of the consequences of global change on aquatic ecosystems at a regional level.

In 2001 Assessed the consequences of global change (particularly climate change and climate variability) on human health and ecosystems.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Report on the potential effects of climate change on urban air quality.	0			report
Preliminary report assessing potential health effects of global change by linking human health and ecological risk.	1			report
Complete initial assessment of air quality impacts of several potential transportation sector technology paths as input to a study of global change on tropospheric ozone concentrations.	1			assessment
External review draft on the effects of climate change on weather-related morbidity in the U.S.		1		report
External review draft of a report on the effects of global change on air quality in the US.		1		Draft report
Publish reports supporting analysis of the comparative risk of UV radiation and habitat quality to amphibian populations across N. America in support of US Global Change Research Program assessments.		09/30/2002		analysis
External review draft of a problem formulation report on the effects of global change on aquatic ecosystems in the U.S.		1		report
Produce a final, comprehensive assessment report which quantifies the potential effects of climate change on weather-			1	report

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request
related morbidity.			
In support of the air quality assessments, produce interim assessment of how advancements in hydrogen/fuel cell and gasoline hybrid vehicles affect emissions of ozone precursors and PM.			1 assessment
Produce a preliminary analysis of meteorological data and air quality using statistical methods.			1 analysis
Peer-reviewed reports for decision-makers and the public on the potential consequences of global change on 3 regions and on human health, which are the finished products of a multi-year effort.	3		reports

Baseline: In April 2000, the Health Sector Assessment Team participating in the first USGCRP National Assessment of the "Potential Consequences of Climate Variability and Change" published its Executive Summary. The entire assessment was published in May 2001 as a Special Issue of Environmental Health Perspectives. The Health Sector Assessment report identified key remaining research needs, which included weather-related morbidity effects. By the end of FY 2003, assessments will be completed of (1) heat-related morbidity in children; (2) the relationship between weather variability and violent crime; (3) the effects of inclement weather on accidents and injuries; and (4) the effects of extreme heat on emergency room visits and hospital admissions.

Air pollution continues to be a widespread public health and environmental problem in the United States. Previous studies suggest that global change (climate change and variability, UV-radiation, land use change) could have significant impacts on ambient air quality. Global climate change will likely result in changes in regional and local weather. While few studies have explicitly investigated the effects of global change on air quality, the available evidence (e.g., weather-ozone studies, basic atmospheric chemistry, sensitivity of emissions to weather and land use, etc.) raises concerns that global change could adversely affect air quality. Two pollutants likely to be affected by global change are ozone and particulate matter and they are also of significant interest to the Agency. By the end of FY 2003, two important components of an integrated air quality assessment will be completed: (1) downscaling of global meteorological data to geographic scales appropriate for air quality assessments; and (2) quantification of the air implications of advanced fuel/vehicle combinations likely to be used to adapt to climate change.

Verification and Validation of Performance Measures

Performance Measure: Annual Greenhouse Gas Reductions

Performance Database: Baseline Data on Greenhouse Gas Emissions Climate Protection Division Tracking System.

Data Source: Baseline data for carbon emissions related to energy use comes from the Energy Information Agency (EIA). Baseline data for non-carbon dioxide (CO₂) emissions, including nitrous oxide and other global warming potential gases are maintained by EPA. EPA develops the methane emissions baselines and projections using information from partners and other sources. EPA continues to develop annual inventories as well as update methodologies as new information becomes available. EPA's voluntary programs collect partner reports on facility specific improvements (e.g. space upgraded, kilowatt-hours (KWh) reduced.) A carbon-conversion factor is used to convert this information to estimated greenhouse gas (GHG) reductions. EPA maintains a "tracking system" for emissions reductions based on the reports submitted by partners.

QA/QC Procedures: EPA devotes considerable effort to obtaining the best possible information on which to evaluate emissions reductions from voluntary programs. For example, EPA has a quality assurance process in place to check the validity of partner reports.

Data Quality Review: Peer-reviewed carbon-conversion factors are used to ensure consistency with generally accepted measures of GHG emissions. The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. The first such interagency evaluation, chaired by the White House Council on Environmental Quality, examined the status of the Climate Change Action Plan. The review included participants from EPA, the Department of Energy (DOE), the Department of Commerce (DOC), the Department of Transportation (DOT), and the U.S. Department of Agriculture (USDA). The results were published in the *U.S. Climate Action Report- 1997* as part of the United States' submission to the Framework Convention on Climate Change (FCCC). A 1997 audit by EPA's Office of the Inspector General concluded that the climate programs examined "used good management practices" and "effectively estimated the impact their activities had on reducing risks to health and the environment..."

Data Limitations: These are indirect measures of GHG emissions (carbon conversion factors and methods to convert material-specific reductions to GHG emissions reductions). Also, the voluntary nature of the programs may affect reporting. Further research will be necessary in order to fully understand the links between GHG concentrations and specific environmental impacts, such as impacts on health, ecosystems, crops, weather events, and so forth.

New/Improved Data or Systems: The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations.

Performance Measure: Annual Energy Savings

Performance Database: Climate Protection Division Tracking

Data Source: Voluntary energy efficiency programs collect partner reports on facility specific improvements (*e.g.*, space upgraded, kWh reduced).

QA/QC Procedures: EPA has a quality assurance process in place to check the validity of partner reports.

Data Quality Review: Peer-reviewed carbon-conversion factors are used to ensure consistency with generally accepted measures of greenhouse gas emissions. The Administration regularly evaluates the effectiveness of its climate programs through interagency evaluations. The first such interagency evaluation, chaired by the White House Council on Environmental Quality, examined the status of the Climate Change Action Plan. The review included participants from EPA, DOE, DOC, DOT, and USDA. The results were published in the *U.S. Climate Action Report-1997* as part of the United States' submission to the Framework Convention on Climate Change (FCCC). A 1997 audit by EPA's OIG concluded that the climate programs examined "used good management practices" and "effectively estimated the impact their activities had on reducing risks to health and the environment..."

Data Limitations: The voluntary nature of programs may affect reporting

New/Improved Data or Systems: The Administration regularly reviews the effectiveness of its climate programs through interagency evaluations.

Coordination with Other Agencies

Voluntary climate protection programs government-wide stimulate the development and use of renewable energy technologies and energy efficient products that will help reduce greenhouse gas emissions. The effort is led by EPA and the Department of Energy (DOE) with significant involvement from USDA, Housing and Urban Development and National Institute of Standards and Technology.

Agencies throughout the government make significant contributions to the climate protection programs. For example, the DOE will pursue actions such as promoting the research, development, and deployment of advanced technologies (for example, renewable energy sources). The Treasury Department will administer proposed tax incentives for specific investments that will reduce emissions. EPA is broadening its public information transportation choices campaign as a joint effort with the DOT. EPA coordinates with each of the above-mentioned agencies to ensure that our programs are complementary and in no way duplicative.

This coordination is evident in current work being undertaken by an interagency task force, including representatives from the Department of State, EPA, DOE, USDA, DOT, OMB, Department of Commerce, USGCRP, NOAA, NASA, and the Department of Defense, to prepare the Third National Communication to the Secretariat as required under the Framework Convention on Climate Change (FCCC). The FCCC was ratified by the United States Senate in 1992. A portion of the Third National Communication will describe policies and measures (such as ENERGY STAR and EPA's Clean Automotive Technology initiative) undertaken by the U.S. to reduce greenhouse gas emissions, implementation status of the policies and measures, and their actual and projected benefits. One result of this interagency review process will be a refinement of future goals for these policies and measures which will be communicated to the Secretariat of the FCCC in 2001. The draft report "Climate Action Report 2001: The United States of America's Third National Communication Under the United Nations Framework Convention on Climate Change, draft, 2001" will be published in 2002.

Research

EPA is an active participant in the interagency U.S. Global Change Research Program (USGCRP) and the ongoing National Assessments of "The Potential Consequences of Climate Change and Variability on the United States." As part of these efforts, EPA coordinates research and assessment activities with other USGCRP agencies to ensure that an integrated Federal research and assessment program is implemented, and that agencies' activities are complementary rather than duplicative. In addition to EPA's Global Change Research program, agencies participating in the USGCRP include: the U.S. Departments of Agriculture, Commerce, Energy, Health and Human Services, Interior; the National Aeronautic and Space Administration; the National Science Foundation; and the Smithsonian

Institution.

Statutory Authorities

Clean Air Act, 42 U.S.C. 7401 et seq. - Sections 102, 103, 104, and 108

Clean Water Act, 33 U.S.C. 1251 et seq. - Section 104

Solid Waste Disposal Act, 42 U.S.C. 6901 et seq. - Section 8001

Pollution Prevention Act, 42 U.S.C. 13101 et seq. - Sections 6602, 6603, 6604, and 6605

National Environmental Policy Act, 42 U.S.C. 4321 et seq. - Section 102

Global Climate Protection Act, 15 U.S.C. 2901 - Section 1103

Federal Technology Transfer Act, 15 U.S.C. - Section 3701a

Research

U.S. Global Change Research Program Act of 1990

United Nations Framework Convention on Climate Change

National Climate Program Act of 1997

Environmental Protection Agency

FY 2003 Annual Performance Plan and Congressional Justification

Reduction of Global and Cross-border Environmental Risks

Objective: Reduce Stratospheric Ozone Depletion.

By 2005, ozone concentrations in the stratosphere will have stopped declining and slowly begun the process of recovery. In addition, public education to promote behavior change will result in reduced risk to human health from ultraviolet (UV) overexposure, particularly among susceptible subpopulations such as children.

Resource Summary (Dollars in Thousands)

	FY 2001 Actuals	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Reduce Stratospheric Ozone Depletion.	\$18,989.4	\$15,843.2	\$15,813.3	(\$29.9)
Environmental Program & Management	\$18,989.4	\$15,843.2	\$15,813.3	(\$29.9)
Total Workyears	34.8	30.1	29.7	-0.4

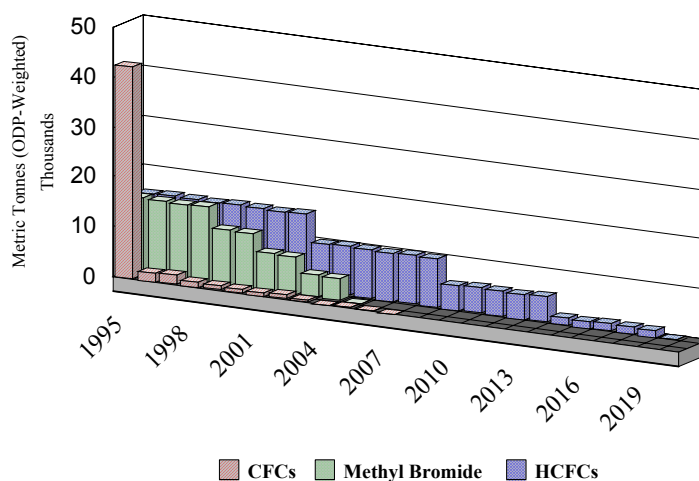
Key Program (Dollars in Thousands)

	FY 2001 Enacted	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Administrative Services	\$16.1	\$0.0	\$0.0	\$0.0
Facilities Infrastructure and Operations	\$0.0	\$489.3	\$419.8	(\$69.5)
Legal Services	\$99.3	\$76.5	\$82.1	\$5.6
Management Services and Stewardship	\$379.1	\$98.9	\$93.4	(\$5.5)
Multilateral Fund	\$10,975.8	\$9,575.8	\$9,575.8	\$0.0
Stratospheric Ozone Protection	\$5,771.9	\$5,602.7	\$5,642.2	\$39.5

FY 2003 Request

The stratospheric ozone layer protects life on earth from harmful UV radiation; a depleted ozone layer allows more UV radiation to reach the earth. The increased levels of UV radiation due to ozone depletion can lead to a greater chance of overexposure to UV radiation and consequent health effects including skin cancer, cataracts, and other illnesses.¹ Today, one in five Americans develops skin cancer. Cataracts diminish the eyesight of millions of Americans and cost billions of dollars in medical care each year. EPA is helping to reduce the risks of skin cancer and cataracts by implementing the provisions of the *Montreal Protocol on Substances that Deplete the Ozone Layer* (Montreal Protocol) and the Clean Air Act Amendments of 1990 (the Act). EPA estimates that, in the United States alone, the worldwide phase-out of ozone depleting substances (ODSs) will save 6.3 million lives from fatal cases of skin cancer, and avoid 299 million cases of non-fatal skin cancer and 27.5 million cases of cataracts between 1990 and 2165.²

U.S. Significant Goals in Controlling Ozone-Depleting Substances



Scientific evidence amassed over the past 25 years has shown that chlorofluorocarbons (CFCs), halons, hydrochlorofluorocarbons (HCFCs), methyl bromide, and other halogenated chemicals used around the world are destroying the stratospheric ozone layer. The Act provides for a phase-out of production and consumption of CFCs, HCFCs, and other ozone-depleting chemicals, and requires controls on various products containing ODSs.

The United States and 178 other countries are Parties to the Montreal Protocol as of July 31, 2001. The United States has repeatedly affirmed its commitment to this international treaty and to demonstrating world leadership by phasing out domestic production of ODSs, as well as helping other countries find suitable alternatives. As a signatory to the Montreal Protocol, the United States has an obligation to domestically regulate and enforce its terms. In accordance with this international treaty, and related Clean Air Act obligations, EPA implements and enforces rules controlling the production, import, and emission of ODSs, as well as rules requiring the EPA to identify safer alternatives and promote their use to curtail ozone depletion.

¹World Meteorological Organization, Scientific Assessment of Ozone Depletion: 1998, February 1999.

²Advisory Council on Clean Air Act Compliance Analysis, Science Advisory Board, The Benefits and Costs of the Clean Air Act 1990-2010, EPA report to Congress: 1999.

Because of the very long lifetimes of ODSs, even after program goals are met, the United States population will be exposed to higher levels of ultraviolet radiation than existed prior to the use and emission of ODSs. The ozone layer is not expected to recover until the mid-21st century at the earliest, according to current atmospheric research. Recognizing this and the current sun-exposure practices of the American public, EPA is encouraging behavioral changes with a goal of reducing UV-related health risks. The Agency is placing special emphasis on education and outreach to children, a particularly vulnerable population, through the SunWise School Program. Approximately 80 percent of lifetime exposure to UV rays is obtained prior to age 18.

Program Goals and Objectives for FY 2003 and Beyond

- Domestic and international phase-out of production and importation of numerous ODSs:
 - Implementation of a Class I chemical phase-out: chlorofluorocarbons (CFCs), halons, methyl chloroform, carbon tetrachloride, chlorobromomethane, and hydrobromofluorocarbons (HBFCs).
 - Development of a marketable allowance allocation program to ensure a graduated phase-out of HCFCs, leading to full phase-out in 2030, in compliance with the Montreal Protocol.
 - Implementation of a graduated phase-out of methyl bromide, while allowing for quarantine, pre-shipment, emergency, and critical uses – also employing marketable allowances.
 - Expanded monitoring and interception of illegal imports of ODSs, through collaboration with the U.S. Customs Service.
 - Implementation of an essential use allowance program for production and importation of CFCs and other ODSs needed for critical applications, such as metered-dose inhalers for asthma and other respiratory illnesses.
 - Increased recovery and recycling of ODSs and alternatives in the U.S. and abroad.
 - Regulatory review and outreach under the Significant New Alternatives Policy (SNAP) program to ensure that substitutes for ozone-depleting chemicals used across major industry and consumer sectors are safe for public health and the environment.
 - Expand the SunWise School Program, with the goal of reducing the risk to children and their caregivers of health effects caused by overexposure to UV radiation. Through implementation of this national UV education program targeted to grades K-8, EPA expects to reach children in 17,000 schools by 2005.
 - Environmental data development and public outreach aimed at informing the public of risks of overexposure to UV radiation.

- Facilitation of earlier voluntary phase-out and refrigerant recycling of CFCs and HCFCs in developing countries.

As noted above, current atmospheric modeling predicts a healing of the ozone layer by the middle of the 21st century, assuming full global compliance with the Montreal Protocol. Because the Protocol makes developing country compliance contingent on support from the Protocol's Multilateral Fund, continued support for the Montreal Protocol's Multilateral Fund is critical if we are to ensure protection of the ozone layer. Under the Montreal Protocol, the U.S. and other developed countries contribute to the Multilateral Fund to support projects and activities to eliminate the developing country production and use of ODSs. To date, the Fund has supported over 3,500 activities in over 124 countries that, when fully implemented, will annually prevent emissions of more than 150,000 metric tons of ODSs. In addition, the Fund has reached long-term agreements to dismantle over two-thirds of developing country CFC production capacity and virtually all of developing country halon production capacity. Final closure of related facilities depends on continued funding.

Pollution prevention also is an important element in meeting the objective goals. For example, the National Emission Reduction Program requires recovery and recycling or reclamation of ODSs, primarily in the air-conditioning and refrigeration sectors. The SNAP program will review newly developed alternatives to ODSs, and restrict those alternatives that, on an overall basis, are more harmful to human health and the environment than other alternatives for the same application. EPA, with the help of other Federal agencies, will also continue to facilitate the transition away from remaining uses of other ODSs, such as methyl bromide and HCFCs. Also working with other Federal and international agencies, EPA will continue its intensive efforts to curb illegal imports of ODSs.

Additionally, in FY 2003, EPA will continue to expand the SunWise School Program. The overarching goal of the SunWise Program is to create a comprehensive approach to mitigate the negative impacts associated with depletion of the Earth's protective ozone layer. EPA's SunWise School Program will achieve this goal through the direct education of children and caregivers in how to protect themselves and others from overexposure to UV radiation.

Program Accomplishments

- In FY 2001, consistent with the Montreal Protocol and the Act, EPA reduced methyl bromide production and import by 50 percent from the 1991 baseline. Simultaneously, EPA collaborated with the U.S. Department of Agriculture (USDA) and industry to test and register alternatives to methyl bromide in FY 2000 and FY 2001.
- Between FY 1995 and FY 2000, EPA, along with the Customs Service and Department of Justice, intercepted over 2,500,000 pounds of illegal ODS imports, resulting in more than 110 convictions of illegal importers. Stemming the flow of illegal imports into the U.S. not only ensures global reductions of ozone-depleting emissions, but also prevents undercutting the U.S. domestic market in reclaimed ODSs.

- During FY 1999 through FY 2001, EPA completed several major projects to prevent an increase in ozone-depleting emissions. For example, EPA:
- Conducted a comprehensive evaluation, in collaboration with the National Aeronautics and Space Administration (NASA), the academic community, and industry, of potential health impacts of ozone depletion resulting from high-speed aircraft flying in the stratosphere.
- Developed and published, with extensive industry input and review, a comprehensive halon recovery and reclamation guide, which focuses on environmentally sound and efficient training and testing uses, de-commissioning, recovery, reclamation, and disposal of halons and containers of halons.
- Banned the distribution and import into the U.S. of refrigerators containing CFCs. The amendment to the existing product ban ensures environmental protection from releases of CFCs and also avoids undermining U.S. refrigerator manufacturers, all of whom have moved to alternatives.
- During FY 2000 and FY 2001, EPA listed 31 of the new possible alternatives to ODSs as acceptable for use in refrigeration and air-conditioning, solvent cleaning, aerosols, insulating foams, fire protection, adhesives, coatings and inks, bringing the combined total of acceptable substitutes to approximately 400. EPA also restricted the use of several proposed substitutes to prevent unacceptable risks to the environment and consumer and worker health and safety.
- EPA also ensured the continued availability of CFCs used for metered-dose inhalers relied upon by 14 million patients with asthma and other chronic respiratory diseases.
- EPA's FY 2001 contribution to the Multilateral Fund helped the Fund support cost-effective projects designed to build capacity and eliminate ODS production and consumption in over 75 developing countries.
- During the 2000-2001 school year, the SunWise program grew from 140 participating schools in 36 states to 587 participating schools in 50 states, Puerto Rico, and the District of Columbia.

Annual Performance Goals and Measures

Restrict Domestic Consumption of Class II HCFCs

In 2003 Restrict domestic consumption of class II HCFCs below 9,960 ODP-weighted metric tonnes (ODP MTs) and restrict domestic exempted production and import of newly produced class I CFCs and halons below 10,000 ODP MTs.

In 2002 Restrict domestic consumption of class II HCFCs below 15,240 ODP-weighted metric tonnes (ODP MTs) and restrict domestic exempted production and import of newly produced class I CFCs and halons below 60,000 ODP MTs.

In 2001 The 2001 results will be available after March 15, 2002.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Domestic Consumption of Class II HCFCs	On track	<15,240	<9,960	ODP MTs
Domestic Exempted Production and Import of Newly Produced Class I CFC s and Halons	On track	<60,000	<10,000	ODP MTs

Baseline: The base of comparison for assessing progress on the 2003 annual performance goal 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.

Montreal Protocol Fund

In 2003 Provide assistance to at least 60 developing countries to facilitate emissions reductions and toward achieving the requirements of the Montreal Protocol.

In 2002 Provide assistance to at least 60 developing countries to facilitate emissions reductions and toward achieving the requirements of the Montreal Protocol.

In 2001 The US provided assistance to 76 developing countries to facilitate emissions reductions toward achieving the requirements of the Montreal Protocol.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Assistance to Countries Working under Montreal Protocol	76	60	60	Countries

Baseline: In an average year the Multilateral Fund, created through the Protocol, approves projects to assist over 50 developing countries in their efforts to comply with the phaseout of ODSs.

Validation and Verification of Performance Measures

Performance Measure: Reductions in production and importation of Ozone Depleting Substances (ODSs).

Performance Database: Reported production, imports, exports, transformations, and allowance trades of ODSs are recorded in the Stratospheric Ozone Tracking System, and analyzed quarterly.

Data Source: Data are provided by producers, importers and exporters of ODSs. Some data are submitted as quarterly reports.

QA/QC Procedures: The Stratospheric Protection Program has a system in place to verify data from private external sources against data from the U.S. Customs. Additionally, the program has a three-point check of

data transcription from the reports into the tracking system.

Data Limitations: None

New/Improved Data or Systems: The Stratospheric Protection Program is continuing to explore an improved system whereby electronic reporting would be possible and an automatic crosswalk could be designed to automatically copy hydrochlorofluorocarbons (HCFC) data to the separate HCFC threshold monitoring database.

Coordination with Other Agencies

In an effort to curb the illegal importation of ODSs, an interagency task force was formed consisting of representatives from EPA, the Department of Justice, the Customs Service, the Department of State, the Department of Commerce, and the Internal Revenue Service. The venting of illegally imported chemicals has the potential to prevent the United States from meeting the goals of the Montreal Protocol to restore the ozone layer.

EPA is working with the USDA to facilitate research and development of alternatives to MBr, and to identify and monitor emergency and critical uses of MBr. EPA consults with the USDA in developing rulemakings for exempting certain MBr from production and importation phase-out. EPA also consults with the Food and Drug Administration (FDA) on the potential for MBr needs.

EPA works with the Office of the United States Trade Representative in analyzing potential trade implications in stratospheric protection regulations that affect imports and exports.

EPA works closely with the Centers for Disease Control and the National Weather Service on the UV Index and the health messages that accompany the scientific data. Additionally, EPA is a member of the Federal Council on Skin Cancer Prevention, which is dedicated to educating and protecting all Federal employees from the risks of overexposure to UV radiation.

EPA coordinates closely with the FDA to ensure that sufficient supplies of CFCs are available for the production of life-saving metered-dose inhalers for the treatment of asthma and other lung diseases. This partnership between EPA and FDA blends the critical goals of protecting the public health and limiting damage to the stratospheric ozone layer.

In addition to collecting its own UV data, EPA coordinates with NASA and the National Oceanic and Atmospheric Administration to monitor the state of the ozone layer.

EPA works with NASA on assessing essential uses and other exemptions for critical shuttle and rocket needs, as well as effects of direct emissions of high speed aircraft flying in the stratosphere.

EPA works very closely with the Department of State, and other Federal agencies as relevant to the issues at hand, in international negotiations among Parties to the Protocol.

EPA coordinates with the Small Business Administration to ensure that proposed rules are developed in accordance with the Small Business Regulatory Flexibility Act.

Statutory Authorities

Clean Air Act (CAA), 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

Environmental Protection Agency

FY 2003 Annual Performance Plan and Congressional Justification

Reduction of Global and Cross-border Environmental Risks

Objective: Protect Public Health and Ecosystems from PBTs and other Toxics.

By 2006, reduce the risks to ecosystems and human health, particularly in tribal and other subsistence-based communities, from persistent, bioaccumulative toxicants (PBTs) and other selected toxins which circulate in the environment on global and regional scales.

Resource Summary (Dollars in Thousands)

	FY 2001 Actuals	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Protect Public Health and Ecosystems from PBTs and other Toxics.	\$4,772.6	\$6,060.9	\$6,173.6	\$112.7
Environmental Program & Management	\$4,772.6	\$6,060.9	\$6,173.6	\$112.7
Total Workyears	31.0	32.8	35.6	2.8

Key Program (Dollars in Thousands)

	FY 2001 Enacted	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Administrative Services	\$16.1	\$0.0	\$0.0	\$0.0
Facilities Infrastructure and Operations	\$0.0	\$495.4	\$515.9	\$20.5
Global Toxics	\$1,571.6	\$1,522.8	\$1,415.1	(\$107.7)
Global Trade Issues for Pesticides and Chemicals	\$2,703.7	\$3,091.2	\$3,125.4	\$34.2
Great Lakes	\$0.0	\$537.6	\$0.0	(\$537.6)
Legal Services	\$313.8	\$382.4	\$410.7	\$28.3
Management Services and Stewardship	\$0.0	\$31.5	\$26.2	(\$5.3)
POPs Implementation	\$0.0	\$0.0	\$680.3	\$680.3

FY 2003 Request

Many human health and environmental risks to the American public originate outside our borders. Many pollutants can travel easily across borders - via rivers, air and ocean currents, and migrating wildlife. Even in the remote Arctic, industrial chemicals such as polychlorinated biphenyls (PCBs) have been found in the tissues of local wildlife. Further, differences in public health standards can contribute to global pollution. A chemical of particular concern to one country may not be controlled or regulated in the same way by another. External environmental influences are not unique to the U.S. Harmonization of national standards can assist in reducing global pollution by increasing the number of health and ecological effects any single country may be examining; it may also lower barriers to trade and commerce as countries accept the validity of another's screening or other standards. To reduce pollution in the U.S., EPA is committed to helping reduce pollution globally.

EPA's activities under this objective give priority to selected chemicals and certain heavy metals which can persist, bioaccumulate and are toxic (PBTs). PBTs break down very slowly in the environment. For this reason, PBTs, including persistent organic pollutants, or POPs as they are known internationally, are very mobile, moving great distances along wind and ocean currents, thereby posing serious risks to human health and the ecosystems world-wide. PBTs also enter the food chain accumulating in shellfish, fish, birds and other animals that are exposed directly or indirectly through their diets.

EPA is working to reduce the potential risk from PBTs on several fronts: (1) reducing the release and transboundary movement of PBTs; (2) reducing the levels of exposure to humans and adverse effects to wildlife that may result from these PBTs; (3) assisting additional countries around the world to monitor releases and also manage their use of PBTs; and (4) increasing confidence that consistent PBT obligations will be met. For each of these efforts, the Agency targets the highest risk or greatest concerns first. Of the PBTs, PCBs, dioxins/furans, DDT and certain other pesticides, mercury poses the greatest concern. In each negotiated agreement or offer of technical assistance, these substances take priority. In addition, certain populations are especially vulnerable, and receive priority consideration. Examples include coastal populations with diets heavy in fish or marine mammals which may contain toxins and endangered wildlife which consume and biomagnify PCBs, DDT or other harmful PBTs.

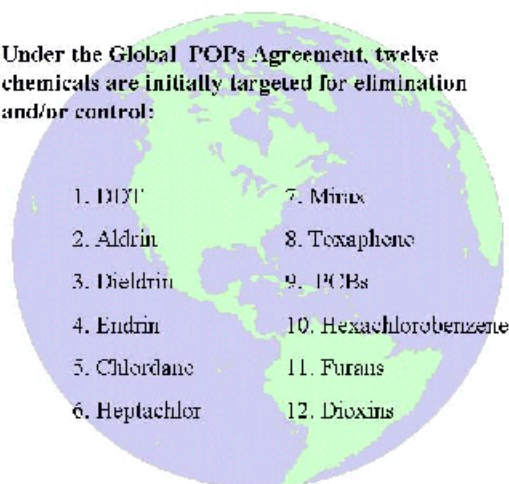
International agreements form the vehicle for many protective standards. In 2003, EPA will continue to play a key role in the Administration's efforts to implement a number of regional and global instruments with both voluntary and legally binding obligations to control and more safely produce, use, store, and dispose of selected PBTs. In addition, the Agency will continue ongoing programs to build the capacity of other countries to reduce risks associated with PBTs, consistent with the obligations of international agreements already in place or now under negotiation.

Binding International Agreements on Certain Persistent Toxics and Prior Informed Consent

Recognizing that environmental loadings of PBTs and the resultant health and environmental risks will increase over time because of expanded production, trade, and use of these substances, in recent years international attention has focused on two groups of PBT substances: persistent organic pollutants (POPs) such as PCBs, dioxins and DDT, and selected heavy metals, most notably mercury.

In December of 2000, the U.S. and 120 other nations concluded negotiations on a legally binding global convention on POPs under the auspices of the United Nations Environment Program (UNEP). The signing ceremony for the Stockholm Convention occurred in Stockholm, Sweden in May 2001, whereby the U.S. and 90 other countries and the European Union signed the treaty. Ninety-two countries must ratify the agreement for it to go into effect, but countries have already started to eliminate or decrease the use of the 12 chemicals identified. The United States is making legislative changes to both the Federal Insecticide, Fungicide, and Rodenticide Act and the Toxic Substances Control Act in order to fulfill its commitment under the new POPs agreement. EPA's goal is to have the United States ratify the agreement by September 2002.

Under the Global POPs Agreement, twelve chemicals are initially targeted for elimination and/or control:



The Arctic Cord Blood Program

An initial study indicates high levels of POPs contamination in newborns of native Alaskan's. Study will now be expanded to improve statistics and include a wider geographical area.

The Stockholm Convention bans or restricts manufacture, use, and/or release of 12 selected chemicals. The agreement also addresses export and import restrictions/controls, emission release restrictions, by-product issues, waste management, and the selection of additional substances for control. The long-term success of the agreement will depend in part on the development of release inventories and implementation of capacity building measures in developing countries around the world.

OIA in coordination with other EPA program and regional offices has developed an international POPs Implementation Plan. The goals of the plan are to (1) Reduction in amount of POPs reaching the U.S. by long range transport, (2) Reduction in the number of sources of POPs in countries of origin, focusing on: PCB-containing equipment, obsolete POPs stockpiles, and Dioxins and furans emissions from combustion sources, and (3) Enabling better inter- and intra-country coordination on POPs implementation activities by improving access to POPs technical, regulatory and program information on the Internet.

In FY 2003 EPA will expand its work to assist developing countries in meeting their obligations under this agreement. Because these chemicals circulate around the globe they can cause health problems anywhere including the United States. EPA will focus on those countries thought to be key sources of the substances most likely to impact the U.S., such as Russia, Central America and the Caribbean. The problem is especially acute in Alaska and the Great Lakes where POPs are taken up in the food chain and

impact Native Americans who depend on subsistence foods for their livelihood.

Among the heavy metals, mercury is especially noteworthy because it circulates in the environment at a global scale. International cooperation is needed in reducing mercury production, use, and release if substantial risk reductions to humans and their environment are to be achieved by individual countries. In FY 2003, EPA will provide technical expertise and data to the global mercury assessment. EPA also will expand the geographic reach of its mercury monitoring effort (e.g., by starting monitoring at Mauna Loa).

A legally binding global convention on Prior Informed Consent (PIC) – which facilitates voluntary information exchange and import controls of banned or severely restricted chemicals among countries – was signed in 1999. In FY 2003 EPA will determine what steps will be needed to ensure U.S. compliance. EPA also will assist developing countries in complying with the provisions of the PIC convention. This will result in more informed decision-making by these countries on how to best manage the risks posed by trade in restricted chemicals.

Other Risk Reduction Measures for Persistent Toxics

Projects aimed at protection of the Arctic Ecosystem will continue to focus on preventing and reducing environmental contamination from spent nuclear fuel, PCBs, and dioxins in NW Russia. In fiscal year 2003, the Russia PCB project will move into the third phase of selecting a PCB destruction technology and demonstrating this technology. The results of the Russia PCB inventory (phase 1) completed in 2000 found PCB inventories of 31,500 tons with the majority of the PCBs found in equipment (27,000 tons) still in circulation.

A program started in 2000 will continue to target countries in Sub-Saharan Africa (SSA) and specific sectors (i.e., refineries, mining companies, and stockpilers of agricultural chemicals) which are major contributors to globally circulating chemical/toxic risks, focusing on pesticides, mercury and lead. This program addresses the growing health and ecosystem risk from rapid urban and industrial development in SSA, and supports U.S. foreign policy and Presidential commitments of engagement with SSA through a community empowerment approach. In 2002, targeted countries and cities are being given information which will assist in implementing environmental regulatory systems on a par with U.S. and international standards. Key activities include pesticide information exchange and training, management of obsolete pesticide stockpiles, lead risk reduction, pollutant release and transfer register development, and industrial sector environmental improvement.

EPA is engaged with UNEP in an Internet Access Project to train officials of developing countries gain access to information necessary for the sound management of chemicals.

Harmonization of Test Guidelines

Test guidelines are collections of methods for assessing hazard, toxicity, or other properties of chemicals and chemical preparations, such as pesticides and industrial chemicals. Each test guideline provides instructions on how a specific type of test could be adequately performed. Many countries develop their own set of test guidelines in line with their internal legislative requirements and priorities, and differences in individual test guidelines can adversely impact the trade between countries.

Harmonizing test guidelines across countries offers significant benefits to industry, the public, and the environment, including:

1. reducing the burden on chemical companies and other industries, which otherwise must perform separate, sometimes only slightly different, repeated testing in order to satisfy the regulatory requirements of different jurisdictions both within the United States and internationally;
2. reducing the need for animal testing;
3. expanding the universe of toxic chemicals for which needed testing information is available; and
4. fostering efficiency in international information exchange and mutual international acceptance of chemical test data.

To date, EPA has published nearly one hundred guidelines, a third of which have been harmonized with OECD requirements. In 2003, the Agency will continue its involvement in the process for harmonization of additional test guidelines with the Organization for Economic Co-operation and Development (OECD) and expects to contribute to the harmonization of five additional test guidelines with the OECD. The achievement of the test guideline subobjective will lead to simplified and more uniform testing requirements, with guidelines that are acceptable to Federal agencies and a wide array of countries, including our major trading partners.

Development of Pollutant Release and Transfer Registries (PRTRs)

Pollutant Release and Transfer Registries (PRTRs) is the international term for annually-reported multi-media emissions inventories, which at a minimum include information on the releases (i.e., air, water, land, underground injection) and transfers (e.g., treatment) of pollutants from industrial sources. The Toxic Release Inventory (TRI) is the United States' version of a PRTR. International attention focused on PRTRs in 1992 when the Earth Summit (held in Rio de Janeiro) encouraged all nations to establish these systems as an integral role in the sound management of chemicals. In North America, all three North American Free Trade Agreement (NAFTA) nations, Canada, the United States and Mexico, have established emissions inventories. There are currently eight nations with PRTRs and more that are either in the process of developing them, or that have expressed an interest in developing such inventories. Fostering public awareness in other countries may help reduce pollution generated in those countries.

EPA remains involved at all levels of the PRTR effort. This involvement includes bilateral discussions and active participation internationally. EPA works closely with the OECD, the North American Commission for Environmental Cooperation (NACEC), the United Nations Institute for Training and Research (UNITAR), and the PRTR Coordination Workgroup, as well as in bilateral activities and in international fora. The U.S. EPA is chairing an OECD PRTR Release Estimation Techniques task force to leverage resources by sharing information and expertise on guidance to industry. To foster public education around the world, EPA will utilize available resources from the U.S.-Asia Environmental Partnership to provide financial or technical assistance to help nations develop PRTRs.

By 2005, EPA expects that a majority of OECD countries will have established PRTRs or will have PRTRs under development. Besides being used for community purposes, as TRI is currently used in this country, these registries will help monitor the progress countries make in complying with international agreements, such as the Montreal Protocol (ozone depleting chemicals), Basel (waste transfer agreements), and the POPs Treaty.

International Screening Information Data Set (SIDS)

The U.S. is working with other OECD member countries to implement the International Screening Information Data Set (SIDS) program, a voluntary international cooperative testing program started in 1990. The program's focus is on developing base-level test information (including data on basic chemistry, environmental fate, environmental effects and health effects) for international high production volume chemicals. Under OECD, high production volume chemicals are those that are manufactured or imported in quantities of at least two million pounds. SIDS data will be used to screen chemicals and to set priorities for further testing and/or assessment. The Agency will review testing needs for 75-100 SIDS chemicals in 2003.

Bilateral Work with Canada and Mexico

EPA will continue to work with the Canadian Government to develop strategies for controlling and ultimately eliminating the remaining uses of two priority persistent bioaccumulative toxic pesticides, pentachlorophenol and lindane, and possibly others yet to be selected. Both chemicals are on the Great Lakes Binational Strategy. In coordination with Mexico, EPA will continue to promote the gradual phaseout of DDT and chlordane, largely through a gradual increase in the use of alternative products and integrated pest management practices. We are also engaged in trilateral work with Canada and Mexico in the framework of the working group on the Sound Management of Chemicals (SMOC).

FY 2003 Change from FY 2002 Enacted

EPM

- (+\$400,000, +2.0 FTE) Additional funding will address priorities and provide technical assistance in key countries and regions, especially those whose POPs releases most directly affect the U.S.; and support international cooperative efforts, such as monitoring and assessment, to identify trends and establish priorities.

- (+\$538,400) Resources, dollars and FTE, associated with rent are allocated in proportion to Agency-wide FTE located in each goal, objective. Resources, dollars and FTE, associated with utilities, security and human resource operations are allocated in proportion to Headquarters FTE located in each goal, objective. Changes reflect shifts in FTE between goals and objectives. Resources, dollars and FTE, associated with contracts and grants are allocated in proportion to Headquarters' contracts and grants resources located in each goal, objective. Changes in these activities reflect shifts in resources between goals and objectives. *(Total changes - rent: - \$3,569,400, utilities: +\$3,468,000, Security: -\$9,103,900. Nominal increases/decreases occurred in human resource operations, grants and contracts related activities.)*

Annual Performance Goals and Measures

Eval. Domest. Suitab. of Internal Consens. Testing

- In 2003 Evaluate the domestic suitability of international consensus testing decisions made in the OECD International Screening Information Data Set (SIDS) program and obtain needed testing as required.
- In 2002 Evaluate the domestic suitability of international consensus testing decisions made in the OECD International Screening Information Data Set (SIDS) program and obtain needed testing as required.
- In 2001 The shortfall in the number of chemicals in this relatively young, voluntary program is due to a lack of commitments from Industry, as well as debate within member countries on which chemicals should be brought forward.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Complete the review of testing needs for chemicals processed through the OECD- sponsored SIDS program	40	75	75	Test Reviews
Complete OECD harmonization	4	5		Test Guidelin
Prepare harmonization documents			5	Dft/Fnl Guidlns

Baseline: (1) Complete testing and data on 25 chemicals processed through the OECD sponsored SIDS program in 1998. (2) Guideline harmonization baseline is 82 test guidelines (health, ecosystem, exposure, physical and chemicals properties) and 32 in draft. (3) In addition to finalized guidelines: (a) Drafts of New Guidelines and Guidance documents sent out for member country review, (b) Drafts of revised Existing Guidelines and Guidance documents that have been sent out for member country review are included.

POPs Negotiation

- In 2003 Reduce environmental exposure to US and selected Countries of concern from Persistent Organic Pollutants (POPs) through the implementation of the Stockholm Convention on POPs.
- In 2002 Initiate priority activities, especially in developing countries, to implement the global convention on persistent organic pollutants (POPs)
- In 2001 Three priority activities were initiated in developing countries to implement the newly concluded global convention on Persistent Organic Pollutants.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Number of POPs implementation activities supported.	3	3		activities
Develop baseline information on atmospheric transport of POP chemicals to sensitive US ecosystems.			1	station
Conduct source inventories in selected Asia-Pacific countries			4	inventories
50% of farmer-owned obsolete POP pesticide stockpiles are removed as a result of training, in priority countries and or regions in Central America.			5	training
Assist countries in the Carribean to address targeted PCB sources.			1	Mgmt. Plan

Baseline: With the signing of the global POPs convention in May 2001 EPA will work on domestic implementing legislation (e.g., a FIFRA amendment) and projects to support implementation by key developing countries (e.g., China). In FY2001 EPA worked with UNEP to identify regions (e.g., Sub-Saharan Africa, Central America, Southeast Asia) which would benefit from such support from EPA, and we have started projects on the basis of available funding. Whenever possible EPA will support projects which also promote compliance with the global Prior Informed Consent (PIC) regime and the international commitment to improve chemicals management capabilities, as set out in the Bahia Declaration from the Third Session of the Intergovernmental Forum on Chemical Safety in October 2000.

Lead Gasoline Phase-Out

- In 2003 An additional two countries make national commitments to phase out the use of lead in gasoline.
- In 2002 An additional two countries make national commitments to phase out the use of lead in gasoline.
- In 2001 Target Met. Philippines and Vietnam have committed to lead phase-out. Also, EPA was an active player in achieving the "Declaration of Dakar,"

which is a statement by representatives of 25 Sub-Saharan African countries presenting a timeline for phasing lead additives out of gasoline.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Number of commitments to Pb phaseout	2	2	2	countries
Global reduction in Pb gasoline.	10	10	10	percent

Baseline: Fourteen countries have phased out the use of Pb gasoline. Twelve countries and the European Union are working on the phase out of Pb gasoline.

Verification and Validation of Performance Measures

Validating measurements under international capacity-building programs presents several challenges. Technical assistance projects, for instance, typically target developing countries, which often do not have sound data collection and analysis systems in place. Several of the Agency's activities under Goal 6, Objective 4 will over time provide environmental information. Non-technical projects, such as assistance in gaining support from donor countries and organizations must rely on more subjective measures of change. Data verification and validation for each of the key measures under Objective 4 are discussed below.

FY 2003 Congressional Performance Measure: Develop baseline information on atmospheric transport of POP chemicals to sensitive US ecosystems.

Performance Database: None- Manual Collection

Data Source: Project Specific

QA/QC Procedures: Verification does not involve any pollutant database analysis, but will require objective assessment tasks completed.

FY 2003 Congressional Performance Measure: Assist a target country in the Carribean to address targeted PCB sources.

Performance Database: None- Manual Collection

Data Source: Project Specific

QA/QC Procedures: Verification does not involve any pollutant database analysis, but will require objective assessment tasks completed.

Coordination with Other Agencies

To conclude the international agreements on POPs, heavy metals and PIC substances, EPA must continue to coordinate with other Federal agencies and external stakeholders, such as Congressional staff, industry, and environmental groups, to convey the U.S. approach and solicit constructive criticism. EPA needs to ensure that the list of chemicals and the criteria and process for evaluating future chemicals for possible international controls are based on sound science. To illustrate, the Agency may typically coordinate with the Food and Drug Administration (FDA), 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 Sciences (NIEHS) and/or the Consumer Product Safety Commission (CPSC) on matters relating to OECD test guideline harmonization.

EPA's objective is to promote improved health and environmental protection, both domestically and worldwide. The success of this objective is dependent on successful coordination not only with other countries, but with various international organizations such as the Intergovernmental Forum on Chemical Safety (IFCS), the North American Commission on Environmental Cooperation (NACEC), the Organization for Economic Cooperation and Development (OECD), and the CODEX Alimentarius Commission. The North American Free Trade Agreement and cooperation with Canada and Mexico play an integral part in the harmonization of data requirements.

The Agency's goal to develop common or compatible international approaches to pesticide review, registration and standard-setting extends to our international partnerships. The partnerships may be grouped into 3 broad categories: (1) policy, (2) programmatic, and (3) capacity building. The Agency, for example, worked closely with other member countries of the OECD to establish a pesticide forum to bring government pesticide regulators together to address common problems and achieve greater harmonization of policies and procedures. The OECD Pesticide Forum works on five major areas: re-registration, data requirements, risk reduction, test guidelines and hazard assessment. The OECD plans to include establishing internationally harmonized labeling for pesticides.

EPA continues to participate actively in the implementation of the Food and Agriculture Organizations Prior Informed Consent (PIC) agreement, which promotes safe management of chemicals in international trade. PIC provides for notification from countries to the U. N. about pesticides and chemicals that have either been banned or severely restricted for health and/or safety reasons. The Agency is also continuing to work with the U.N. Food and Agriculture Organization (FAO) to promote safe management of chemicals in international trade. The Agency also has worked with the Codex Alimentarius Commission to improve the scientific basis and timeliness of Codex decisions, and boost public participation in the decision making processes. The Agency also will continue to work with the North American Commission for Environmental Cooperation on the development and implementation of regional action plans to address such PBTs as mercury.

EPA initiated work in 1999 on its Persistent Bioaccumulative Toxics Program (PBTP), which aims to support a variety of domestic and international efforts (noted above). The goal of these efforts is to reduce the risks posed by persistent toxic substances. Through the PBTP, EPA has worked closely with its domestic partners, including state and local governments, as well as industry, environmental and Tribal organizations, plus international counterparts, to promote the objectives of the Initiative. This work has closely paralleled many efforts already underway to conclude and promote the implementation of

international agreements on POPs and PIC.

At the EPA regional level, EPA also worked with the NACEC to deal with chemical pollutants of concern to Canada, Mexico, and the United States. The commission approved regional action plans to reduce the use of DDT and chlordane throughout North America.

Statutory Authorities

Pollution Prevention Act (PPA) (42 U.S.C. 13101-13109)

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) sections 3,4,5,6,10,11,18,20,23,24,25,30 and 31 (7 U.S.C. 136a, 126a-1, 126c, 136d, 136h, 136i, 136p, 136r, 136u, 136v, 136w, 136w-5 and 136w-6)

Emergency Planning and Community Right-to-Know Act (EPCRA) section 313 (42 U.S.C. 11023)

Toxic Substances Control Act (TSCA) sections 4, 5, 6, 12, and 13 (15 U.S.C. 2603, 2604, 2605, 2611, 2612)

Clean Water Act (CWA) (33 U.S.C. 1251-1387)]

Clean Air Act (CAA)

Federal Food, Drug and Cosmetic Act (FFDCA).

Resource Conservation and Recovery Act (RCRA)

North American Agreement on Environmental Cooperation (NAAEC)

1996 Habitat Agenda, paragraph 43bb

U.S./Canada Agreements on Arctic Cooperation

1989 US/USSR Agreement on Pollution

1991 U.S./Canada Air Quality Agreement

1978 U.S./Canada Great Lakes Water Quality Agreement

1909 Boundary Waters Agreement

World Trade Organization Agreements

North American Free Trade Agreement

Environmental Protection Agency

FY 2003 Annual Performance Plan and Congressional Justification

Reduction of Global and Cross-border Environmental Risks

Objective: Increase Domestic and International Use of Cleaner and More Cost-Effective Technologies.

Through 2005, integrate environmental protection with international trade and investment and increase the application of cleaner and more cost-effective environmental practices and technologies in the United States and abroad to ensure that a clean environment and a strong economy go hand-in-hand.

Resource Summary (Dollars in Thousands)

	FY 2001 Actuals	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Increase Domestic and International Use of Cleaner and More Cost-Effective Technologies.	\$10,914.5	\$12,520.9	\$12,601.0	\$80.1
Environmental Program & Management	\$10,914.5	\$12,520.9	\$12,601.0	\$80.1
Total Workyears	53.9	54.0	54.7	0.7

Key Program (Dollars in Thousands)

	FY 2001 Enacted	FY 2002 Enacted	FY 2003 Request	FY 2003 Req. v. FY 2002 Ena.
Administrative Services	\$16.1	\$0.0	\$0.0	\$0.0
Commission for Environmental Cooperation - CEC	\$3,269.0	\$3,396.4	\$3,535.3	\$138.9
Environment and Trade	\$1,700.0	\$1,672.6	\$1,844.3	\$171.7
Facilities Infrastructure and Operations	\$0.0	\$815.6	\$792.7	(\$22.9)
Global Toxics	\$7.7	\$0.0	\$0.0	\$0.0
International Safe Drinking Water	\$384.4	\$0.0	\$0.0	\$0.0
Legal Services	\$581.4	\$675.7	\$725.6	\$49.9
Management Services and Stewardship	\$25.4	\$51.0	\$41.7	(\$9.3)
Regional and Global Environmental Policy Development	\$1,784.8	\$1,431.2	\$1,331.3	(\$99.9)
Technical Cooperation with Industrial and Developing Countries	\$3,400.2	\$4,478.4	\$4,330.1	(\$148.3)

FY 2003 Request

EPA's activities under this objective will: (1) protect human health and the environment on global, regional, and national levels by enhancing management capabilities in other countries; (2) reduce the cost of environmental protection in the U.S. through international sharing of environmental information and of innovative practices; (3) promote environmentally sound trade worldwide through the implementation of the North American Free Trade Agreement's environmental agreements, and through participation in the development of U.S. trade policy; (4) promote the dissemination of proven and cost-effective environmental technologies and services; and (5) advance U.S. foreign policy, economic, national security, humanitarian, and other interests abroad.

Specific programs and activities which support the objective during FY 2003 include:

Trade and Environment

EPA's involvement in U.S. trade policy development began in the early 1990's with the negotiation of the North American Free Trade Agreement (NAFTA) (1991-1993). For the first time, the United States, Mexico, and Canada placed priority attention on environmental issues caused by trade liberalization as part of trade negotiations. Increasingly, trade rules focus on "non-tariff trade barriers," which include safety and environmental laws that restrict market access, such as regulation of products (e.g., chemicals, pesticides, vehicles) that are sold or traded in commerce. In addition, some agreements (e.g., NAFTA) include investment provisions that limit the types of measures governments may apply to foreign investors, including measures to address health and environmental issues. Regulatory agencies must ensure that the implementation of domestic statutes does not violate U.S. trade obligations.

To better understand the linkages between trade rules and environmental protection, the United States has developed a procedure to assess reasonably foreseeable impacts of trade agreements both on the environment (both positive and negative), and on our ability to protect the environment through regulations. Coordinated by the Office of United States Trade Representative and the President's Council on Environmental Quality, U.S. Federal agencies conduct environmental reviews of major trade agreements. EPA and other Federal agencies are required to provide the human and financial resources necessary to perform such reviews. The environmental review of trade agreements includes an ongoing, iterative process in which EPA staff participate in developing US negotiating positions and in negotiating sessions to make sure that trade agreement proposals and environmental policies are mutually supportive, and not in conflict.

During FY 2001 and FY 2002, EPA was involved in conducting environmental reviews of proposed trade agreements with Jordan, Chile, Singapore, and the Free Trade Area of the Americas. That effort included developing numerical models to better predict the potential environmental effects of the agreements. During 2003, the number and pace of trade and investment agreement negotiations is expected to increase. EPA will continue to refine the models, and work with other U.S. Government agencies to perform additional reviews, including a review of the Agreement on Agriculture and the General Agreement on Trade in Services of the World Trade Organization.

Finally, in all of its trade agreements, the United States has been a proponent of making the trade dispute resolution process more open and transparent to the public. EPA has worked to articulate and promote this policy. Greater openness will improve public understanding of the dispute process which in

turn can help improve decision making and help assure that trade and environmental policies are not in conflict, but are mutually supportive.

International Safe Drinking Water

The international safe drinking water initiative will continue its focus on applying cleaner and more cost-effective environmental practices and technologies in order to improve drinking water quality in partner countries. Ongoing projects in Central America or Africa will be used as models to continue promoting water quality improvement throughout these regions with potential expansion into Asia. With the number of medium-sized cities (100,000 to 1 million inhabitants) and large cities (greater than 1 million inhabitants) expected to rise dramatically over the next 20 years, these projects will help alleviate the enormous stress on an already compromised water and wastewater infrastructure in urban and peri-urban areas.

In Latin American, EPA will work with partners such as the Pan American Health Organization's technical center – CEPIS – to strengthen their abilities to improve water quality in the region. EPA implemented several drinking water projects in Africa during FY 2002, with projects focused on nations in the southern and eastern parts of the continent. If sufficient funding is available for international drinking water programs during FY'03, EPA may expand on the work begun in Africa. Raising awareness of the cost-effectiveness of protecting safe water resources (versus treatment of contaminated sources) will be an important component of each project in each region. EPA will work with in-country partners to emphasize the health impacts and societal costs, such as infant mortality or lost work force productivity, which can result from unsafe drinking water.

Transfer of Innovative Practices and Environmental Information

EPA will continue its international urban environmental programs, which help U.S. cities and EPA's environmental programs to promote:

- sustainable social, economic, and environmental re-use of brownfields;
- environmentally-sensitive transportation systems which reduce greenhouse gas emissions and land consumption;
- “green” buildings which reduce greenhouse gas emissions, improve stormwater runoff, and reduce solid waste;
- sustainable urban watershed management; and
- integrated urban solid waste management systems.

The Agency supports this work through the exchange of urban and environmental policies, technologies and practitioners between U.S. and OECD-member urban regions, frequently at the sub-national level.

Continuing projects begun in FY 2002, EPA will support a comparative research study of urban watershed management in the Potomac River Basin using best practices from non-point runoff, storm water, land-use and urban development projects in Germany as the basis for the work. The project will highlight how urban regions in the Potomac Basin can improve surface water quality and simultaneously reduce water maintenance costs. EPA will also undertake a comparative risk-based decision-making effort between brownfields practitioners in Canada and the U.K. This effort will articulate the unique and common elements of risk-based approaches to site assessment, site restoration, and landscape design in these

countries and how these approaches could apply to the U.S. Finally, EPA will support the collection of international best practices “green” buildings in OECD-member countries and the dissemination of these practices to U.S. communities.

In addition to its international urban management activities, EPA will continue to work directly with other countries and through multilateral organizations to disseminate environmental information. However, because of reduced funds and FTEs, EPA will not initiate new international programs on the collection, analysis, or transfer of environmental data in FY 2003. Support for programs initiated in FY 2002, such as assisting Asian cities to improve collection and analysis of data on air pollution, will continue in 2003 as originally planned.

Legal and Regulatory Capacity Building

In FY 2003, EPA will continue legal and regulatory capacity-building activities in Asia and Central America. In Asia, EPA will continue to work in cooperation with U.S. AID to implement new environmental laws and regulations or significantly revise existing laws and regulations. Through in-country assistance to EPA counterpart organizations, training, and transfer of information, EPA will assist in developing and implementing improved laws and regulations. Projects in support of this effort will likely focus on transferring U.S. experience in the development of sound regulatory regimes and associated policies on permitting and penalty assessment. The Agency will also work to increase public participation in the promulgation of environmental regulations. Public participation can encourage greater transparency in enforcement and reporting. EPA will also work with key partners to develop public awareness campaigns which facilitate the implementation of new regulations.

As part of an on-going cooperative effort with USAID, the Agency will also work to improve the regulatory framework in Central America. EPA will assist Central American countries in developing regionally-comparable environmental standards, improving their application and enforcement of environmental regulations, and increasing their ability to comply with international environmental agreements. Work under this regional program will focus largely on pesticide management, wastewater management systems, and municipal waste management. FY 2003 will mark the second year in this 6-year effort.

Work under Objective 5, *Achieve Cleaner and More Cost-Effective Practices*, provides developing countries with the tools and training necessary to achieve long-term environmental change. These programs complement technical assistance which EPA and other organizations provide by ensuring that the recipient country or region is able to sustain and replicate environmental improvements. These programs also help protect human health and the environment in the U.S. by introducing innovative practices for environmental management, reducing costs and encouraging information flow through data sharing, increasing the demand for U.S. environmental technologies and services, and helping to implement more transparent enforcement and permitting regimes.

Work in FY 2003 will focus on developing the frameworks necessary to perpetuate cleaner and more cost-effective practices. EPA will assist industrializing countries to improve legal and regulatory regimes (especially at the regional level) and to improve drinking water management systems. EPA will also work with other OECD-member countries to transfer to the U.S. their best practices for urban environmental management, thereby assisting municipal governments to explore cleaner, less expensive models of site

reuse, transportation planning, and the like.

FY 2003 Change from FY 2002

EPM

- (-\$100,000, 2.0 FTE) redirection of resources to give greater emphasis to POPs implementation (Goal 6 Objective 4). The redirection will reduce the depth of analyses of some trade agreements in order to support priorities. In addition, to support the growing demand for additional coordination OIA will shift two FTEs within this objective to Trade and Environment program activities.

- (\$789,600) Resources, dollars and FTE, associated with rent are allocated in proportion to Agency-wide FTE located in each goal, objective. Resources, dollars and FTE, associated with utilities, security and human resource operations are allocated in proportion to Headquarters FTE located in each goal, objective. Changes reflect shifts in FTE between goals and objectives. Resources, dollars and FTE, associated with contracts and grants are allocated in proportion to Headquarters' contracts and grants resources located in each goal, objective. Changes in these activities reflect shifts in resources between goals and objectives. *(Total changes - rent: -\$3,569,400, utilities: +\$3,468,000, Security: -\$9,103,900. Nominal increases/decreases occurred in human resource operations, grants and contracts related activities.)*

Annual Performance Goals and Measures

Enhance Institutional Capabilities

In 2003 Enhance environmental management and institutional capabilities in priority countries.

In 2002 Enhance environmental management and institutional capabilities in priority countries.

In 2001 Target Met. EPA conducted environmental institutional building and enhanced the abilities of the following countries to protect their environments and those of the global common: El Salvador, Nicaragua, Honduras, Mexico, China, Thailand, Egypt, Indonesia, Vietnam, & Philippines.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Number of countries or localities (3) that have adopted new or strengthened environmental laws and policies	3			countries
Number of organizations (3) that have increased environmental planning, analysis, and enforcement capabilities	3			organizations
Number of organizations (3) that have increased capabilities to generate and analyze environmental data and other information	3			organizations
Number of organizations (3) that have increased public outreach and participation	4			organizations
Number of targeted sectors (3) that have adopted cleaner production practices	2			industry sector
Number of cities (3) that have reduced mobile-source based ambient air pollution concentrations	3			cities
Assist in the development or implementation of improved environmental laws or regulations in priority countries.		2	1	countries

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Increase the transfer of environmental best practices among the U.S. and its partner countries and build the capacity of developing countries to collect, analyze, or disseminate environmental data.		3	3	countries
Increase the capacity of programs in Africa or Latin America to address safe drinking water quality issues.			1	countries

Baseline: EPA has assisted several entities within developing countries to implement improved environmental laws, employ best environmental practices, adopt cleaner production practices and reduce ambient air pollution concentrations.

World Trade Organization - Regulatory System

In 2003 All trade agreements negotiated after 2001 contain environmental provisions.

Performance Measures:	FY 2001 Actual	FY 2002 Enacted	FY 2003 Request	
Trade agreements and world trade organization provisions contain environmental text			1	Agreements

Baseline: Currently, the World Trade Organization has no formal policy for involving the public in its decision making and dispute resolution processes.

Verification and Validation of Performance Measures

Validating measurements under international capacity-building programs presents several challenges. Technical assistance projects, for instance, typically target developing countries, which often do not have sound data collection and analysis systems in place. Several of the Agency’s activities under Goal 6, Objective 5 attempt to improve this data gathering and analysis process. Non-technical projects, such as assistance in regulatory reform, frequently must rely on more subjective measures of change, such as the opinions of project staff or reviews by third-party organizations, including other U.S. government organizations, in judging the long-term efficacy of the assistance provided. Data verification and validation for each of the key measures under Objective 5 are discussed below.

FY 2003 Congressional Performance Measure: Assist in the development or implementation of improved environmental laws or regulations in developing countries.

Performance Database: None- Manual Collection

Data Source: Project Specific

QA/QC Procedures: Verification does not involve any pollutant database analysis, but will require objective assessment of: (1) tasks completed, (2) compliance with new regulation, and (3) progress toward project goals and objectives.

EPA works with developing countries to improve environmental laws and regulations. Tracking development and implementation of legislation presents few challenges because EPA project staff maintain close contact with their counterparts and any changes become part of a public record. Assessing the quality of the new or revised laws/regulations, the

level of public participation and support for stronger regulations, and the long-term social impacts of legislation is more subjective. Aside from feedback from Agency project staff, EPA relies, in part, on feedback from its counterparts in the target countries and regions and from NGOs and other third parties in gauging the efficacy of its work on international legal and regulatory capacity-building. Because EPA works to establish long-term relationships with priority countries, the Agency is often able to assess environmental improvement in these countries and regions for a number of years following legal assistance efforts. Under its cooperative programs with US AID in Central America, EPA is developing a set of indicators to measure progress for each activity undertaken. These indicators should be in place in FY 2002.

FY 2003 Congressional Performance Measure: Increase the transfer of environmental best practices among the U.S. and its partner countries and build the capacity of developing countries to collect, analyze or disseminate environmental data.

Performance Database: None- Manual Collection

Data Source: Project Specific

QA/QC Procedures: Verification does not involve any pollutant database analysis, but will require objective assessment of: (1) tasks completed, (2) compliance with new regulation, and (3) progress toward project goals and objectives. Data on the performance of specific urban projects are compiled and recorded by the grantee after consulting bi-monthly with local, regional, and national urban environmental practitioners. The data are forwarded to and verified in writing by the EPA project officer.

New/Improved Data or Systems: Activities in support of this project may result in new or improved data collection systems in developing countries.

FY 2003 Congressional Performance Measure: Increase the capacity of programs in Latin America or Africa to address safe drinking water quality issues.

Performance Database: None-Manual Collection

Data Source: Project Specific

QA/QC Procedures: Verification does not involve any pollutant database analysis, but will require objective assessment of: (1) tasks completed, (2) compliance with new regulation, and (3) progress toward project goals and objectives. EPA is currently tracking output data for the International Safe Drinking Water Program (ISDWP) in Central America with plans to begin looking at measuring the longer term outcomes. On a quarterly basis, EPA collects data through EPA teams, in-country partners and cooperators on outputs such as number of people trained, number of pilot projects completed and number of workshops held. This information is validated through constant contact with the aforementioned groups and through on-site visits by EPA program managers. The

information is also shared with donors, specifically USAID, through quarterly reports. The outcome measures of improved capacity of in-country partners and stakeholders to ensure safe drinking water for the communities are under development and will provide indicators of the longer term sustainability potential of the program.

EPA's ISDWP in Africa is currently in the start-up phase and the data collection process is under development.

Coordination with Other Agencies

EPA's environmental mandate and expertise make it uniquely qualified to represent the nation's environmental interest abroad. While the Department of State (DOS) is responsible for the conduct of overall U.S. foreign policy, implementation is often the responsibility of other agencies with specific technical expertise and resources. Relations between EPA and DOS cut across several offices and/or bureaus in both organizations. EPA and the many components of the Department of Commerce work together closely on a range of different issues, including many science and technology issues. Within EPA, the Office of International Activities (OIA) is responsible in implementing EPA activities under the Export Enhancement Act of 1992. The Act mandated EPA participation on the Environmental Trade Working Group of the Trade Promotion Coordinating Committee, an interagency working group chaired by the Secretary of Commerce to coordinate the government's overall environmental trade promotion activities.

OIA also serves as the primary point-of-contact and liaison with the U.S. Agency for International Development (USAID). Specially drawing on expertise from throughout EPA, OIA administers a number of interagency agreements for environmental assistance.

EPA works extensively with the Office of the U.S. Trade Representative (USTR), particularly its Office of Environmental and Natural Resources, to ensure that U.S. trade policies are mutually supportive. For example, through the Agency's participation in the negotiation of both the North American Free Trade Agreement and the World Trade Organization and in the Committees created by both sets of agreement, EPA has worked with USTR to ensure that U.S. obligations under international trade agreements do not hamper the ability of Federal and state governments to maintain high levels of domestic environmental protection. The two agencies also work together to ensure that EPA's rules, regulations and programs are consistent with U.S. obligations under international trade agreements.

Finally, EPA works closely with a number of other Federal agencies with environmental, health, or safety mandates. These include the Department of Labor, Department of Transportation, Department of Agriculture, Department of Interior, Department of Health and Human Services, and the Food and Drug Administration.

Statutory Authorities

EPCRA section 313 (42 U.S.C. 11023)

PPA (42 U.S.C. 13101-13109)

World Trade Organization Agreements

North American Free Trade Agreement

North American Agreement on Environmental Cooperation

US-Canada Agreements

The Boundary Waters Treaty of 1909

1987 Great Lakes Water Quality Agreement

1997 Canada-U.S. Great Lakes Binational Toxics Strategy