

## Environmental Protection Agency

### FY 2001 Annual Performance Plan and Congressional Justification

#### Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

**Strategic Goal:** Pollution prevention and risk management strategies aimed at cost-effectively eliminating, reducing, or minimizing emissions and contamination will result in cleaner and safer environments in which all Americans can reside, work, and enjoy life. EPA will safeguard ecosystems and promote the health of natural communities that are integral to the quality of life in this nation.

#### Resource Summary (Dollars in thousands)

		FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request	FY 2001 Req. v. FY 2000 Ena.
<b>Goal 04</b>	<b>Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems</b>	<b>\$237,990.3</b>	<b>\$277,597.3</b>	<b>\$301,046.3</b>	<b>\$23,449.0</b>
<b>Obj. 01</b>	Reduce Public and Ecosystem Exposure to Pesticides	\$43,240.2	\$51,892.3	\$55,971.7	\$4,079.4
<b>Obj. 02</b>	Reduce Lead Poisoning	\$30,722.7	\$27,390.6	\$28,213.9	\$823.3
<b>Obj. 03</b>	Safe Handling and Use of Commercial Chemicals and Microorganisms	\$42,868.2	\$66,866.8	\$70,983.3	\$4,116.5
<b>Obj. 04</b>	Healthier Indoor Air	\$29,095.7	\$39,915.5	\$41,159.0	\$1,243.5
<b>Obj. 05</b>	Improve Pollution Prevention Strategies, Tools, Approaches	\$22,346.6	\$23,649.5	\$24,505.5	\$856.0
<b>Obj. 06</b>	Decrease Quantity and Toxicity of Waste	\$17,561.2	\$15,056.6	\$16,016.6	\$960.0
<b>Obj. 07</b>	Assess Conditions in Indian Country	\$52,155.7	\$52,826.0	\$64,196.3	\$11,370.3
	Total Workyears	1,118.9	1,176.1	1,186.5	11.0

#### Background and Context

EPA uses a number of approaches to protect public health and the nation's ecosystems from the risks of exposure to pesticides or toxic chemicals. The underlying principle of the activities in this goal is the application of pollution prevention. Preventing pollution before it may harm the environment or public is cheaper and smarter than costly cleanup and remediation. In 1998, TRI

facilities reported a total of 10.2 billion pounds of pollutants released, treated or combusted for energy. Reducing waste, and reducing the toxic chemicals that are used in industrial processing, protects the environment and also improves efficiency, thereby lowering costs for industry. Pollution prevention involves changing the behavior of those that cause the pollution and fostering the wider use of preventive practices as a means to achieve cost effective, sustainable results. For example, the Design for the Environment and Green Chemistry programs strive to change the behavior of chemists and engineers to incorporate pollution prevention and environmental risk considerations in their daily work.

In Goal 4, the Agency targets certain chemicals of high risk as well as the full range of pollutants addressed by the pollution prevention program. Many chemicals are particularly toxic to children. At high levels, lead, for instance, damages the brain and nervous system and can result in behavioral and learning problems. Despite a dramatic reduction in lead exposure among young children over the last twenty years, there are still approximately 900,000 children in the U.S. with elevated blood lead levels. Exposure to asbestos, PCBs and other chemicals in our buildings and in the environment poses risks to humans as well as wildlife. For other common chemicals, the risks may not be known. The screening and testing of chemicals about to enter the market, combined with the review of the most common chemicals already in use (Chemical Right-to-Know), fill gaps in our knowledge. Contaminants present in the indoor environment may also pose a significant health threat, and certain sensitive populations, especially children, may be disproportionately at risk. Since 1980 the prevalence rate of asthma has increased by 75%, so that now, approximately 17 million Americans suffer from asthma. Nearly 1 in 13 school-aged children has asthma, and the percentage of children with asthma is rising more rapidly in preschool-aged children than in any other age group. Certain contaminants found indoors are known to play a significant role in triggering asthma episodes in people who have the disease, and in some cases, are causally associated with the development of the disease itself.

## **Means and Strategy**

The diversity and fragility of America's environments (communities, homes, workplaces and ecosystems) requires EPA to adopt a multi-faceted approach to protecting the public from the threats posed by pesticide and toxic chemicals. The underlying principle of the activities in this goal is the application of pollution prevention, which is cheaper and smarter than costly cleanup and remediation, as evidenced with Superfund, Resource Conservation and Recovery Act (RCRA), and Polychlorinated Biphenyls (PCB) cleanups.

Under this Goal, EPA ensures that pesticides and their application methods do not present unreasonable risk to human health, the environment, and ecosystems. In addition to the array of risk-management measures entailed in the registration authorities under Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) for individual pesticide ingredients, EPA has specific programs to foster worker and pesticide-user safety, ground-water protection, and the safe, effective use of antimicrobial agents. These programs work to ensure the comprehensive protection of the environment and wildlife in general, endangered species in particular, and to reduce the contribution of pesticides to ecological threats such as pollutant loading in select geographic areas. Within this context, EPA pursues a variety of field activities at the regional, state and local levels, including the

promotion of pesticide environmental stewardship. EPA is also addressing emerging threats such as endocrine disruptors by developing and implementing new screening technologies to assess a chemical's hormonal activity. Finally, EPA promotes the use of sensible Integrated Pest Management (IPM) and the prevention of misuse in the panoply of uses within both the urban and rural environments.

Much remains to be done to safeguard our Nation's communities, homes, workplaces and ecosystems. Preventing pollution through regulatory, voluntary, and partnership actions -- educating and changing the behavior of our public -- is a sensible and effective approach to sustainable development while protecting our nation's health. Two groups with significant potential to effect environmental change are industry and academia and the Agency pursues a number of these pollution prevention programs with both of these groups. Likewise, improved understanding of the risks to health from airborne toxic chemicals indoors may strengthen our ability to reduce residents' exposure through voluntary changes in behavior and through potential product reformulation.

Preventing pollution through partnerships is central to the Administration's Chemical Right-to-Know initiative launched in 1998. This initiative provides the public with information on the basic health and environmental effects of the 2,800 highest production volume (HPV) chemicals in the United States. Most residents come into daily contact with many of these chemicals, yet relatively little is known about their potential impacts. Getting basic hazard testing information is the focus of a the "HPV Challenge Program", a voluntary program recognizing industry's contribution to the public knowledge base on these prevalent chemicals. More than 211 companies have committed to voluntarily provide these test data for more than 1,152 of the HPV chemicals, a remarkable expression of partnership between government and the private sector. Risks to children is a particular focus, and the Agency will supplement the information from industry with additional testing to identify and address chemicals of concern for children's health.

Children's health is also the continuing focus of the multi-agency initiative begun in 2000 to combat asthma in children. Efforts in 2001 will target reductions in the presence of indoor triggers of asthma, such as environmental tobacco smoke and biological contaminants, by educating the public about the disease and the steps they can take to reduce the severity and frequency of asthma attacks. Additional voluntary work will be undertaken by schools to empower their students to manage their asthma symptoms better, by school personnel to improve the indoor environments of their schools, and by health-care personnel to incorporate education about managing environmental asthma triggers into asthma treatment plans for their patients. Partnerships with non-profit environmental and public health organizations with a particular focus on children are being used to bring about voluntary reductions in exposure to asthma triggers found indoors.

Reducing indoor air pollution is a high priority for the Agency. U.S. residents spend most of their time indoors and the pollutants indoors can be in much higher concentrations than what occurs outside. Further, poor indoor air quality is implicated in childhood asthma. Recent studies indicate nearly 1 of 13 school age children have asthma. Over the last 20 years the number of deaths from asthma has increased three-fold. Partnerships, technology transfer and public awareness are key tools in reducing indoor air pollution.

Also central to the Agency's work under this goal in 2001 will be increased attention on documenting and taking action to reduce risk from persistent, bioaccumulative and highly toxic chemicals (PBTs) and from chemicals that have endocrine disruption effects. PBT chemicals are of particular concern not only because they are toxic but also because they may remain in the environment for a long period of time, are not readily destroyed, and may build up or accumulate in plant or animal tissue, and in cases involving mercury, polychlorinated biphenyls (PCBs) and lead, in human tissue. Pollution prevention and controlling releases are the mainstays of protection for chemicals that exhibit these effects.

The Agency mixes both regulatory and voluntary methods to accomplish its job. For example, each year the New Chemicals program reviews and manages the risks of approximately 1,800 new chemicals and 40 products of biotechnology that enter the marketplace. This new chemical review process not only protects the public from the immediate threats of harmful chemicals, like PCBs, from entering the marketplace but it has also contributed to changing the behavior of the chemical industry, making industry more aware and responsible for the impact these chemicals have on human health and the environment. This awareness has led industry to produce safer "greener" alternative chemicals and pesticides. Fewer harmful chemicals are entering the marketplace and our environment today because of the New Chemical Program.

The Design for the Environment (DfE) and Green Chemistry Programs build on and expand the new chemistry efforts. They target industry and academia to maximize the impact of the Agency's pollution prevention efforts. Our DfE Program forms partnerships with industry to find sensible solutions to prevent pollution. In one example, taking a sector approach, EPA has worked with the electronics industry to reduce the use of formaldehyde and other toxic chemicals from the manufacture of printed wiring boards.

The Pollution Prevention (P2) Framework developed in 1998 and 1999 is another example of EPA successfully influencing industry's approach to chemical selection prior to commercialization. The P2 Framework integrates analytical methods and tools that help predict risks of chemicals, based on chemical structure; allows stakeholders to evaluate and compare chemical choices and to identify environmentally preferable products and processes; and helps industry identify risk issues early in product development, when pollution prevention opportunities are most cost-effective.

In several cases, achieving the strategic objectives under this goal is a shared responsibility with other federal and state agencies. For example, EPA's role in reducing the levels of environmental lead exposure involves promotion of federal-state partnerships to lower specific sources of environmental lead, such as lead-based paint and other lead-content products. These partnerships emphasize development of a professional infrastructure to identify, manage and abate lead-based paint hazards, as well as public education and empowerment strategies, which fit into companion Federal efforts (e.g., Centers for Disease Control (CDC), and Department of Housing and Urban Development (HUD)) to monitor and reduce environmental lead levels. Likewise, achieving the goals of the multi-agency effort to substantially increase the government's efforts to combat asthma in children requires effective collaboration between EPA and other Federal agencies.

Intrinsic to the effort to prevent pollution is the minimization of the quantities of waste generated by industry, municipalities and hazardous-waste management operations. Strategies range from fostering materials reuse and recycling and other resource-recovery processes to broad-based campaigns to re-engineer the consumption and use of raw materials or personal conservation of resources. Effective and sustainable programs reduce the need for storage, treatment or disposal of hazardous or municipal wastes, while reducing costs to industry and municipalities.

Since this Goal focuses on how Americans live in communities, it features the Agency's commitment of fulfilling its responsibility for assuring human health and promoting environmental protection in Indian Country. EPA's policy is to work with tribes on a government-to-government basis that affirms the vital trust responsibility that EPA has with 554 tribal governments and remains cognizant of the Nation's interest in conserving the cultural uses of natural resources.

### Research

Currently, there are significant gaps with regard to understanding of actual human exposures to pesticides and toxic substances in consumer products in residential environments and potential human health risks from such exposures to the general population and susceptible subpopulations, such as infants and children. Methods for detecting and estimating human exposures to these chemical stressors are extremely limited. Health effects information is not available for most of these stressors. Tools that are currently available to control or prevent exposures are also limited to certain processes or materials. Research is needed to improve the characterization of health risks associated with community exposures to environmental chemical stressors and to develop more advanced control technologies to mitigate and eliminate human exposures to these stressors. To meet this need, the 2001 research program will develop exposure data, health risk assessment methodologies, and control technologies to improve the characterization of health risks and reduce community exposures to environmental chemical stressors.

## **Strategic Objectives and FY2001 Annual Performance Goals**

### **Objective 01: Reduce Public and Ecosystem Exposure to Pesticides**

- Protect homes, communities, and workplaces from harmful exposure to pesticides and related pollutants through improved cultural practices and enhanced public education, resulting in a reduction (to be determined) in the incidences of pesticide poisonings reported nationwide.

### **Objective 02: Reduce Lead Poisoning**

- Administer federal programs and oversee state implementation of programs for lead-based paint abatement certification and training in 50 states and on tribal lands, to reduce exposure to lead-based paint and ensure significant decreases in children's blood levels by 2005.

### **Objective 03: Safe Handling and Use of Commercial Chemicals and Microorganisms**

- Ensure that of the up to 1800 new chemicals and microorganisms submitted by industry each year, those that are introduced in commerce are safe to humans and the environment for their intended uses.
- EPA will initiate safety reviews on chemicals already in commerce by obtaining data on an additional 10% of the 2800 HPV chem. on the master test list, as part of the implementation of a comprehensive strategy for screening, testing, classifying and managing the risks posed by commercial chemicals.

### **Objective 04: Safe Handling and Use of Commercial Chemicals and Microorganisms**

- 890,000 additional people will be living in healthier residential indoor environments.
- 2,580,000 students, faculty and staff will experience improved indoor air quality in their schools.

### **Objective 05: Improve Pollution Prevention Strategies, Tools, Approaches**

- The quantity of Toxic Release Inventory (TRI) pollutants released, disposed of, treated or combusted for energy recovery, (normalized for changes in industrial production) will be reduced by 200 millions pounds, or 2%, from 2000 reporting levels.

## **Objective 06: Decrease Quantity and Toxicity of Waste**

- Divert an additional 1% (for a cumulative total of 30% or 67 million tons) of municipal solid waste from land filling and combustion, and maintain per capita generation of RCRA municipal solid waste at 4.3 pounds per day.

## **Objective 07: Assess Conditions in Indian Country**

- Baseline environmental information will be collected by 34% of Tribes (covering 50% of Indian Country).

## **Highlights**

EPA seeks to prevent pollution at the source as the first choice in managing environmental risks to humans and ecosystems. Where pollution prevention at the source is not a viable alternative, the Agency will employ risk management and remediation strategies in a cost effective manner. Reducing pollution at the source will be carried out using a multi-media approach in the following environmental problem areas:

### Reduce Public and Ecosystem Exposure to Pesticides

Reducing risk from exposure to pesticides requires a multi-faceted approach. Beyond being exposed through the food we eat, the general public, applicators, and farm workers may be exposed through direct handling, groundwater contamination or aerial spray. One intent of the Food Quality Protection Act (FQPA) is to protect the public by shifting the nation toward safer pesticide use. Appropriate transition strategies to safer pesticides are important to the nation to avoid disruption of food supply or sudden changes in the market that could result from abruptly terminating the use of a pesticide before well-targeted safer equivalents can be identified and made available. For these reasons, the Strategic Agricultural Partnership initiative continues to be an important priority in 2001. The Strategic Agricultural Partnership assists in developing alternative pest management tools and effective implementation approaches. The Agency will work closely with industry, agricultural pesticide users and other stakeholders to develop an effective transition to the safer pesticides and pest management practices envisioned by the FQPA. In 2001, the initiative will expand efforts to reach more farmers, encourage them to adopt safer pesticides, use environmental stewardship and integrated pest management practices, and adopt a “whole farm” approach to environmental protection.

In 2001, through the Certification and Training (C&T) and Worker Protection (WP) programs, EPA will continue increasing agricultural workers’ awareness and knowledge of the dangers of pesticides and good worker safety practices. EPA will continue to protect the Nation’s ecosystems and reduce impacts to endangered species through the Pesticide Environmental Stewardship Program (PESP), and integrated pest management (IPM). The Agency will emphasize efforts with our tribal partners to address pesticide issues and enhance the development of tribal

technical capacity, particularly in the areas of risk management, worker safety, training, and pollution prevention.

Together, the WP and the C&T programs address the problem of worker pesticide exposure. These programs safeguard workers from occupational exposure to pesticides by providing training for workers, employers, and pesticide applicators and handlers. Training and certification of applicators of restricted use pesticides further ensures that workers and other vulnerable groups are protected from undue pesticide exposure and risk. Recertification requirements keep their knowledge current with label changes and application improvements. The Groundwater Strategy, a cooperative effort with states and regions to develop Pesticide Management Plans (PMPs), will further efforts to prevent pesticide pollution of surface and groundwaters. The Endangered Species program will enlist the support of the agricultural community and other interested groups to protect wildlife and critical habitats from pesticides. This voluntary program is carried out through communications and outreach efforts and in coordination with other federal agencies. The Pesticide Environmental Stewardship Program (PESP) and Integrated Pest Management (IPM) play pivotal roles in moving the nation to the use of safe pest control methods, including reduced risk pesticides. These closely related programs promote risk reduction through collaborative efforts with stakeholders to utilize safer alternatives to traditional chemical methods of pest control.

Antimicrobial sterilants and disinfectants are used to kill microorganisms on surfaces and objects in hospitals, schools, restaurants and homes. Antimicrobials require appropriate labeling and handling to ensure safety and efficacy. EPA remains focused on accurate product labeling and product efficacy and on meeting other requirements for antimicrobial sterilants set forth by FQPA.

### Reduce Lead Poisoning

EPA is part of the Federal effort to address lead poisoning and elevated blood levels in children by assisting in, and in some cases guiding, federal activities aimed at reducing the exposure of children in homes with lead-based paint. During FY 2001, EPA will continue implementing its comprehensive program to reduce the incidence of lead poisoning and elevated blood levels in children nationwide. The Agency has established a national program to oversee the training and certification of lead-based paint abatement and inspection professionals. Many states and several Tribes have been authorized by EPA to administer and enforce this program. EPA is responsible for administering and enforcing the program in the remainder of the states and tribal lands.

In FY 2001, EPA will finalize two new proposed regulations addressing renovation activities in housing, and lead paint removal from buildings, bridges and steel structures. EPA will also issue final regulations that will allow for safe and cost-effective disposal of lead painted debris. EPA, (HUD), and the Department of Justice (DOJ) continue to enforce regulations requiring the disclosure of information about lead-based paint during real estate transactions. EPA recently issued a final rule that requires contractors to provide lead hazard information to consumers before renovation or remodeling in homes built before 1978.



In FY 2001, EPA will continue its program to educate the public about childhood lead poisoning. These activities are coordinated with other federal agencies such as HUD and the CDC, as well as state, tribal and local governments.

### Safe Handling and Use of Commercial Chemicals and Microorganisms

Under TSCA, EPA identifies and controls unreasonable risks associated with chemicals. In 1998, the Vice-President called on EPA to launch the Chemical Right-to-Know Initiative, addressing a critical gap in the nation's knowledge about the health and environmental hazards of high production volume chemicals (HPVs). EPA is working with industry to put information about those chemicals into the hands of the public, communities, environmental groups, States and the Regions.

Another Agency priority is implementation of the Endocrine Disruptor Screening Program (EDSP). The EDSP is based on the recommendations of the Endocrine Disruptor Screening and Testing Advisory Committee (EDSTAC), which provided advice and counsel to the Agency on a strategy to screen and test chemicals and pesticides that may cause endocrine disruption in humans, fish, and wildlife. In 1999, EPA began the validation of EDSP screening test protocols which will be completed in 2001. By 2005, EPA anticipates that all high production volume chemicals will be screened for endocrine disrupting potential. The resulting priority chemicals will be tested using the approach and test methods developed from recommendations of the EDSTAC.

In 2001, EPA will also continue efforts in three important program areas: existing chemicals; new chemicals; and national program chemicals (including lead, fibers, dioxin, PCBs, and mercury). The Agency reviews chemicals already in commerce, along with chemicals or microorganisms before commercialization (i.e., "new" chemicals) to determine whether they can be handled and used safely. Another key focus is green chemistry, which identifies opportunities for increasing the design, development and use of inherently safer or "greener" chemicals and chemical processes. For those chemicals whose significant risks are well established (such as PCBs, asbestos, and dioxin), reductions in use and releases are important to reducing exposure of the general population as well as sensitive sub-populations. EPA's PCB control efforts will shift from enforcing PCB use standards toward encouraging phase-out of PCB electrical equipment, ensuring proper waste disposal methods and capacity, and fostering PCB site cleanups. An Agency-wide dioxin strategy will respond to the latest science and address dioxin risk management in a more comprehensive cross-media approach. EPA is also continuing work on its Dioxin Exposure Initiative which focuses on identifying and quantifying the link between dioxin sources and the general population exposure.

### Achieving Healthier Indoor Air

In FY 2001, the Indoor Environments program will continue to emphasize children's health with an emphasis on implementing steps to reduce the number of children affected by asthma from indoor environmental exposure. In particular, the Agency will continue its education and outreach activities which implement portions of "Asthma and the Environment: An Action Plan to Protect Children," the inter-agency plan developed under the President's Task Force On Environmental Health Risks and Safety Risks to Children. EPA's activities are directed at

increasing the extent to which children with asthma, parents/caregivers, and schools understand and take action on the links between the condition of their indoor environments and asthma. EPA works in close collaboration CDC and the National Institutes of Health (NIH) to help ensure that each organization is conducting discrete activities that complement those being conducted by other organizations. In addition, the Agency will continue its efforts to improve indoor air quality in Tribal lands. While many of the issues are the same, radon, ETS, increasing incidents of asthma, Agency efforts often require a greater focus on capacity building and sensitivity to customs and culture.

#### Decrease the Quantity and Toxicity of Waste

Pollution prevention and waste minimization require a comprehensive effort of minimizing the quantity and toxicity of waste generated by industries, the government and individual citizens. EPA's role includes several specific activities addressing industrial hazardous waste and municipal and industrial solid waste.

In the hazardous waste arena, regulated under RCRA Subtitle C, the RCRA program focuses on the most persistent, bioaccumulative and toxic (PBT) chemicals, consistent with the national and international priority on reducing the presence of PBTs in the environment. In 2001, the Agency will encourage and support implementation activities to meet our GPRA commitment of reducing PBT chemicals in RCRA hazardous waste, thereby decreasing human and environmental exposure to toxic wastes. This will include waste reuse and recycling efforts which preserve natural resources and enhancement of industry partnerships to minimize hazardous wastes by building on the tools and coordination activities already established.

The Agency will continue reducing the barriers to safe recycling of hazardous waste through changes to recycling regulatory standards, and ongoing outreach to stakeholders to explore additional options.

EPA is also a leader in reducing generation of municipal and industrial solid waste regulated under RCRA Subtitle D and improving the recovery and conservation of materials through source reduction and recycling. With our stakeholders, we have promoted financing and technology opportunities for recycling/reuse businesses. In 2001, the Agency will serve as a catalyst for innovative source reduction and recycling in many industrial sectors, including waste reduction opportunities for construction and demolition debris, food wastes, tires, electronics equipment, carpet, transport packaging, and plastic beverage packaging.

#### Assess Conditions in Indian Country

EPA places particular priority on working with Federally Recognized Indian Tribes on a government-to-government basis to improve environmental conditions in Indian country in a manner that affirms the vital trust responsibility that EPA has with some 554 Tribal governments. The Agency will concentrate on building Tribal infrastructure and completing a documented baseline assessment of environmental conditions in Indian country to enable EPA/Tribes to identify high priority human health and environmental risks. These assessments will provide a blueprint for

planning future activities through the development of Tribal/EPA Environmental Agreements (TEAs) or similar tribal environmental plans to address and support priority environmental multi-media concerns in Indian country. By the end of 2001, EPA expects to complete key reforms to the Agency's data infrastructure to address Tribes. By the end of 2001, EPA will also complete a baseline assessment of 38% of Indian country using existing information. EPA anticipates that existing information will provide a sufficient basis for sound environmental planning and program implementation in some areas. In other areas, EPA anticipates the baseline assessment will identify key data gaps for resolution. By the end of 2000, EPA will have invested \$2.1 million in these activities.

In 2001, EPA is requesting an additional \$10 million (total of \$52.6 million) for Indian General Assistance Program grants. These resources will allow at least 80 additional Tribes to support at least one or two persons working in their community to build a strong, sustainable environment for the future. These people perform vital work by assessing the status of a Tribe's environmental condition and developing the infrastructure for an environmental program tailored to that Tribe's needs. Another key role of this workforce is to alert EPA of serious conditions requiring attention in the near term so that, in addition to assisting in the building of Tribal environmental capacity, EPA can work with the Tribe to respond to immediate public health and ecological threats.

In accordance with the President's 1994 Memorandum and its own longstanding policy, EPA is considering additional approaches for how EPA and Indian Tribes might work together to protect public health and the environment in Indian country. As part of that effort, EPA is proposing appropriations language that would provide another tool to implement its federal programs while removing existing legal and procedural impediments to working directly and effectively with Tribal governments. The proposed language would allow EPA to award cooperative agreements to federally recognized Indian Tribes or Intertribal consortia if authorized by their Tribal members to assist the Administrator in implementing federal environmental programs for Indian Tribes. The proposed language would improve environmental protection while also building the capacity and expertise of the Tribes to run their own environmental programs.

### Research

In FY 2001, research will continue to develop exposure data, health risk assessment methodologies, and control technologies to improve the characterization of health risks and reduce community exposures to environmental chemical stressors. For example, health effects research will continue to focus on developing mechanistically-based predictive models for human health risk assessment, such as structure-activity relationship (SAR) models to help determine testing needs under Section 5 of TSCA, which addresses new chemicals. The Agency will also issue guidance on the use of SAR computer technologies in FY 2001.

### **External Factors**

The ability of the Agency to achieve its strategic goals and objectives depends on several factors over which the Agency has only partial control or influence. EPA relies heavily on partnerships with States, Tribes, local governments, the public and regulated parties to protect the environment and human health. In addition, EPA assures the safe use of pesticides in coordination with the USDA and FDA, who have responsibility to monitor and control residues and other environmental exposures, as necessary. EPA also works with these agencies to coordinate with other countries and international organizations with which the United States shares environmental goals. This plan discusses the mechanisms and programs that the Agency employs to assure that our partners in environmental protection will have the capacity to conduct the activities needed to achieve the objectives. However, as noted, EPA often has limited control over these entities. In addition, much of the success of EPA programs depends on the voluntary cooperation of the private sector and the general public.

EPA's ability to achieve the goals and objectives is also predicated on an adequate level of resources for direct program implementation by EPA as well as for delegated programs. The objectives in this plan are based on current funding levels. If appropriations are lower or different from requested, some objectives may be difficult or impossible to achieve. Other factors that could delay or prevent the Agency's achievement of some objectives include: lawsuits that delay or stop EPA's and/or State partners' planned activities; new or amended legislation; and new commitments within the Administration. Economic growth and changes in producer and consumer behavior, such as shifts in energy prices or automobile use, could have an influence on the Agency's ability to achieve several of the objectives within the time frame specified.

Large-scale accidental releases (such as large oil spills) or rare catastrophic natural events (such as volcanic eruptions) could, in the short term, impact EPA's ability to achieve the objectives. In the longer term, new environmental technology, unanticipated complexity or magnitude of environmental problems, or newly identified environmental problems and priorities could affect the time frame for achieving many of the goals and objectives. In particular, pesticide use is affected by unanticipated outbreaks of pest infestations and/or disease factors, which requires EPA to review emergency uses to ensure no unreasonable risks to the environment will result. EPA has no control over requests for various registration actions (new products, amendments, uses, etc.), so its projection of regulatory workload is subject to change.

To achieve our collective goal of healthy indoor environments, EPA collaborates with federal, State, Tribal and local government agencies, industry, and non-profit organizations. Partnerships with these organizations are the primary method the Agency uses to reduce public risk. The indoor air quality activities conducted through these partnerships are non-regulatory and rely on effective public outreach and education, incentives, and voluntary actions to protect health to influence individuals (e.g., homeowners, school administrators, parents, building owners) to take action to reduce their risk. A key external factor which may impact the successful attainment of the indoor environments goal is the ability of states with relatively small programs to leverage their resources to achieve adequate results. In many cases, resources are limited and compete with federally mandated regulatory programs.

The Agency's ability to achieve its objective of decreasing the quantity and toxicity of waste could be impacted by the increased flexibility provided to redirect resources under the National Environmental Performance Partnership System (NEPPS). If states redirect resources away from this area, it would impact both annual performance and progress implementing the Agency's strategic plan. To mitigate this potential issue, EPA is working with the Environmental Council of States (ECOS) to develop core measures and coordinating with states to develop, for example, the RCRA Persistent, Bioaccumulative, and Toxics (PBT) list and other tools that will focus state activities on shared EPA and state goals.

In addition, recycling rates are affected by shifts in prices and potential regulatory changes to reduce or eliminate disincentives to safe recycling. While market forces have helped to achieve current rates, better markets for recycled products/recyclables/reusables are needed to encourage increased recycling rates and source reduction. EPA has worked with other agencies to develop the federal government's "buy recycled" program and the Federal Environmental Executive to promote this program and currently has several other ongoing projects that encourage market development.

Achieving our objective for Indian Country is based upon a partnership with Indian Tribal governments, many of which face severe poverty, employment, housing and education issues. Because Tribal Leader and environmental director support will be critical in achieving this objective, the Agency is working with Tribes to ensure that they understand the importance of having good information on environmental conditions in Indian country and sound environmental capabilities. In addition, EPA also works with other Federal Agencies, the Department of Interior (US Geological Survey, Bureau of Indian Affairs, and Bureau of Reclamation), the National Oceanic and Atmospheric Administration, the Indian Health Service and the Corps of Engineers to help build programs on Tribal lands. Changing priorities in these agencies could adversely affect their ability to work with EPA in establishing and implementing strategies, regulations, guidance, programs and projects that affect Indian Tribes.

## Environmental Protection Agency

### FY 2001 Annual Performance Plan and Congressional Justification

#### Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

##### Objective # 1: Reduce Public and Ecosystem Exposure to Pesticides

By 2005, public and ecosystem risk from pesticides will be reduced through migration to lower-risk pesticides and pesticide management practices, improving education of the public and at risk workers, and forming "pesticide environmental partnerships" with pesticide user groups.

##### Resource Summary (Dollars in thousands)

	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request	FY 2001 Req. v. FY 2000 Ena.
<b>Reduce Public and Ecosystem Exposure to Pesticides</b>	<b>\$43,240.2</b>	<b>\$51,892.2</b>	<b>\$55,971.7</b>	<b>\$4,079.5</b>
Environmental Programs & Management	\$29,281.0	\$37,973.4	\$42,007.0	\$4,033.6
Science & Technology	\$844.6	\$804.2	\$850.1	\$45.9
State and Tribal Assistance Grants	\$13,114.6	\$13,114.6	\$13,114.6	\$0.0
Total Workyears	230.2	232.9	234.6	1.7

##### Key Programs (Dollars in thousands)

	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request
Pesticide Registration	\$8,201.8	\$11,346.3	\$12,053.5
Pesticide Reregistration	\$5,265.6	\$4,517.3	\$3,037.4
Endocrine Disruptor Screening Program	\$276.7	\$544.0	\$584.0
Pesticide Applicator Certification and Training	\$10,438.0	\$9,391.2	\$10,587.0
Pesticides Program Implementation Grant	\$13,114.6	\$13,114.6	\$13,114.6

Rent, Utilities and Security	\$0.0	\$3,858.3	\$3,749.0
Administrative Services	\$16.7	\$436.2	\$462.6
Regional Management	0	\$13.8	\$23.0

## **FY 2001 Request**

The FY 2001 budget for this objective requests an increase of \$4,079,500 and 1.7 FTE over the FY 2000 Enacted Budget. Funding will help farmers transition to safer pesticides as a result of stricter FQPA standards. In FY 2001, EPA will utilize a “whole farm approach” to pesticide management and pollution prevention. This approach simultaneously considers numerous risks associated with the agricultural use of pesticides, including spray drift, chemical runoff, pesticide disposal, groundwater protection, worker protection, and pesticide application techniques. This allows us to develop an integrated plan for pollution prevention. EPA will continue its commitment under this objective to protect agricultural workers, to certify and train pesticide applicators, to protect endangered species and ecosystems from the harmful effects of pesticides, to develop and implement environmental stewardship and integrated pest management pollution prevention strategies and to protect our nation’s groundwater from pesticide contamination.

Regional Pesticide Worker Protection efforts will focus on three areas:

1. Coordinate with state and tribal partners to assess compliance and evaluate the effectiveness of Worker Protection Standards.
2. Build stronger links to the farm worker community to provide a field level perspective on the effectiveness of the national program.
3. Continue to build better links to the health care community to support a national effort to improve the recognition and management of pesticide related illnesses.

### Reduce Human Exposure to Pesticide Use

In 2001, through the Certification and Training Program (C&T) and the Worker Protection Program (WP), EPA will increase workers’ awareness and knowledge of pesticides and worker safety. The C&T and the WP programs protect agricultural workers, employers, applicators, handlers and the public from the potential dangers posed by pesticides. The Worker Protection Standards offer protection to over three and a half million people who work with pesticides at more than 560,000 workplaces. The C&T program increases the competence of the applicators in handling and applying pesticides through training and certification (and recertification every five years) of private and commercial applicators of restricted use pesticides. C&T and WP also provide safety training for pesticide handlers and agricultural workers.

EPA will continue efforts to prevent household and other pesticide misuse in rural and urban areas focusing on poor communities where there are proportionate public health risks to residents, especially children. EPA will employ product stewardship with manufacturers and distributors, and

work with states to improve their certification and training programs. Efforts are continuing to improve consumer product labels, pesticide containers and their distribution, and direct enforcement activities to prevent improper sales of agricultural pesticides. The public education campaign continues, which includes working with low income and minority communities to demonstrate safe and effective pest management and control.

In 1999, EPA piloted four projects in the Atlanta, Chicago, San Francisco and Seattle regions. The projects included a broad range of activities such as:

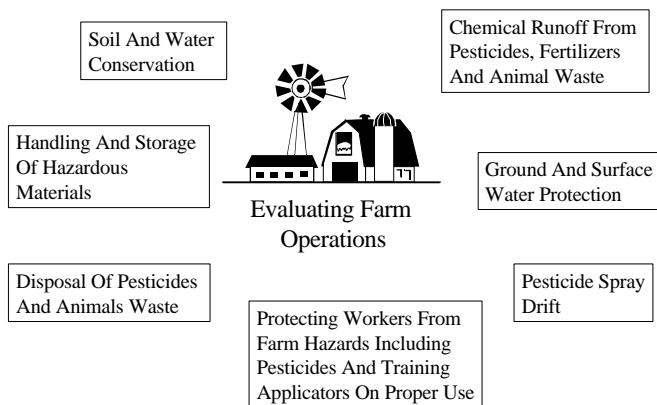
- Development of crop profiles to provide better data on pesticide use
- Pesticide residue studies which may provide more accurate risk assessments for minor use applications
- An analysis of current pesticide use in the grape industry keying on viable alternatives
- A study on mitigation of pesticide risk through biological controls, alternative cropping systems, precision pesticide application and other practices.

On June 26, 1996, the Agency published a notice of proposed rule-making, proposing to establish a new regulatory mechanism - Pesticide Management Plans (PMPs) - to enable states to manage pesticide use in order to protect groundwater from contamination. The proposed rule implements a key component of the Agency's 1991 *Pesticides and Ground Water Strategy*, and reflects many years of discussion and input from States and other stakeholders. A PMP is a 12-

point program of State(or Tribal) assessment and management of pesticide use and contamination potential, designed to protect groundwater from contamination that may pose an unreasonable risk to human health or the environment.

Through the development and use of PMPs, EPA is proposing to restrict the use of certain pesticides by providing States and Tribes the flexibility to protect the groundwater in the most appropriate way for local conditions. This approach capitalizes on the most effective and efficient roles for State, Tribal and Federal governments to collaborate in the protection of the nation's groundwater resources. EPA is proposing to restrict the legal sale and use of five pesticides – atrazine, simazine, cyanazine, alachlor and metolachlor – through EPA-approved PMPs.

### “Whole Farm Approach”



The Strategic Agricultural Partnership Initiative will continue to



expand and develop pest management strategies which demonstrate alternatives to harmful pesticides and assist the agricultural industry in meeting state and Federal safe food standards. EPA will implement an additional 10-15 model agricultural partnership projects that demonstrate farm management practices and provide growers with information to assist a “reasonable transition” away from the highest risk pesticides (those likely to be lost under FQPA implementation). Regions will lead the development of FQPA transition projects with commodity groups and provide strategic and technical assistance on project design, implementation, and evaluation. The “whole farm” approach, conducted in cooperation with USDA and FDA, will focus on area-specific problems. Due to variations in crops, pests and weather patterns in different locales, a regional approach will be employed to address local needs. This approach will rely on partnerships between EPA, state agencies (Departments of Agriculture, Departments of Environment and Land Grant Universities) and agricultural groups (farm bureaus and major commodity groups). The first stage of the initiative evaluates current farm operations including pesticide risk reduction technologies, IPM and Best Management Practices (BMPs), soil and water conservation, handling and storage of hazardous materials and solid waste management. Model or demonstration sites are used for purposes of outreach, education and compliance assistance for other agricultural operations throughout the state.

### Reduce Environmental Exposure to Pesticide Use

In FY 2001, EPA and USDA will expand efforts to provide information about pest control options, organize and deliver pest management educational programs for agricultural producers, consumers, and other stakeholders on reduced risk pesticides and alternative pest control methods, such as Integrated Pest Management (IPM) and Pesticide Environmental Stewardship (PESP), and develop and evaluate new pest management technologies.

The Pesticide Environmental Stewardship Program and Integrated Pest Management are closely related programs that promote risk reduction by using safer alternatives to traditional chemical methods of pest control. PESP entails voluntary partnerships with pesticide users to reduce both health and environmental risks while incorporating pollution prevention strategies. Partners and supporters of PESP play vital roles in developing common sense approaches to pesticide risk reduction. PESP supporters have an interest in risk reduction because they use agricultural products or represent groups which are affected by pesticides. This program was initiated in 1994, prior to FQPA, however, its focus is consistent with the statute’s goals in reducing risk in agricultural and nonagricultural settings. PESP grants provide assistance to partners and supporters in developing and implementing risk reduction strategies. EPA and USDA will continue to encourage and support IPM practices, fostering the managed use of an array of pest control methods (biological, cultural and chemical) that achieve the best results with the least adverse impact to the environment.

The Endangered Species Protection Program (ESPP), started in 1988, is largely voluntary and relies on cooperation between the U.S. Fish and Wildlife Service (FWS), EPA Regions, states, and pesticide users. The Endangered Species Act is intended to protect and promote the recovery of animals and plants that are in danger of becoming extinct because of human activity. Under the Act, EPA must ensure that use of pesticides it registers will not result in harm to the species listed as endangered and threatened, or harm the habitat critical to those species’ survival. To implement

the ESPP, labels of certain pesticides direct users to bulletins with information that will protect endangered and threatened species from harm resulting from pesticide use.

In order to protect listed species from detrimental effects from the use of pesticides, the Agency will do the following:

- Use sound science to assess the risk of pesticide exposure to listed species.
- Attempt to find means to avoid concerns for listed species. When we cannot avoid concerns, we then consult with the scientists at the FWS.
- Implement use limitations by adding a generic label statement; developing county bulletins that contain maps of species' locations and pesticide use limitations; distributing the bulletins and other materials by a wide variety of methods; and providing a toll-free telephone number to assist users in determining whether they need a bulletin and where to obtain one.
- Encourage individual states to develop their own plans by whatever approach they determine is best for them as long as the approach meets the goals of protecting endangered species while minimizing the impact on pesticide users.

States are also a part of the county bulletin review process, along with other agencies. The states are encouraged to include state agricultural, fish and wildlife agencies, as well as pesticide users, in their review process.

Antimicrobial sterilants and disinfectants are used to kill microorganisms on surfaces and objects in hospitals, schools, restaurants and homes. EPA registers and regulates antimicrobial pesticides under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). To obtain registration, manufacturers of antimicrobial products must meet the basic standards, the foremost being:

- The product will not cause unreasonable adverse effects to human health or the environment
- Product labeling and composition comply with the requirements of FIFRA.

Manufacturers are required to submit to EPA detailed and specific information concerning the chemical composition of their product; effectiveness data to document their claims against specific microorganisms and to support the directions for use provided in labeling; labeling that reflects the required elements

Antimicrobials Used in the U.S.

There are approximately 8,000 antimicrobial pesticide products and 300 active ingredients registered with EPA. In 1995, 3.3 billion pounds of active ingredients were used.

- 2.3 billion lbs. hypochlorite/chlorine chemicals for disinfecting water, including drinking water
- 0.7 billion lbs wood preservatives
- 0.3 billion lbs "other" including public health pesticides such as disinfectants and sanitizers used in medical facilities; metal working fluids, painting and coatings.

Today, approximately one billion dollars each year are spent on a variety of different type of antimicrobial products.

for safe and effective use; and toxicology data to document any hazards associated with use of the product.

Increased concern has emerged regarding whether public health products, used to kill microorganisms pathogenic to man on inanimate surfaces and objects in hospitals, schools, restaurants, and homes, work as claimed on the label. The private and public sector communities including competitor registrants, have made the Agency aware of sterilizers and hospital disinfectants which may be ineffective. Sterilizers and disinfectants are increasingly vital to containing infections that are resistant to antibiotics, in clinical settings. EPA has responded to this situation by developing a comprehensive strategy to improve the regulation of antimicrobial pesticides.

One of the main components of the strategy is better coordination with stakeholders and co-regulators. EPA has greatly improved communications with the public, all levels of government, academia, user communities, industry, health professionals, trade organizations, and independent testing groups. The Agency will publish a quarterly newsletter designed to educate the general public about the status and direction of the regulation for antimicrobial products.

The other key link in the strategy to improve the regulation of antimicrobial products involves internal Agency processes. EPA has committed funds to ensure that the tests used to demonstrate the efficacy of antimicrobial products are reliable and reproducible. Internal controls are being perfected to ensure the integrity of data submitted by registrants. Further, the Agency is in the process of developing a complaint system to handle concerns regarding ineffective products. The Agency is actively working to ensure that all antimicrobial products sold and distributed in the marketplace are effective in protecting public health and the environment from potential health risks.

Reducing the risks of pesticide exposure is a particular challenge on tribal lands. Native Americans consume different sorts of foods from the average, and may have other farming practices. Their pattern of exposure may diverge from the general public dietary or exposure information gathered by USDA, FDA or the registrant. What's more, outreach and education tools must be matched to tribal needs. In 2001, the Agency will continue to team with our tribal partners to address pesticide issues and enhance the development of tribal technical capacity, particularly in the areas of risk management, worker safety, training, and pollution prevention. The effectiveness of our field programs on tribal lands is directly related to tribal capacity for pollution prevention. Agency efforts include the following:

- Enhancing tribal environmental program capacity by conducting multi-media risk assessments
- Providing training and technical assistance for Tribal environmental managers to conduct their own assessments and mitigation activities, with a primary emphasis on pollution prevention, to reduce children's exposure to Persistent Bioaccumulative Toxics (PBTs), pesticides, lead and other toxic substances

- Refining risk assessment guidelines pilot tested in FY 2000 by trained tribal environmental professionals who will conduct the work to determine the feasibility, overall effectiveness and affordability of the guidelines

## **FY 2001 Change from FY 2000 Enacted**

### **EPM**

- (+\$1,500,000) Regional Strategic Agricultural Partnerships Initiative with the agricultural community. Broad stakeholder collaborations will link scientists, farmers, industry, and government at the local, state and federal levels. Support for farmers will include research, alternative practices and flexible, locally-based solutions, providing farmers with innovative technical and financial support systems.
- (+\$950,000) Resource increase will expand efforts within the worker protection and certification and training programs to provide information about pest control options and educate pesticide users on reduced risk pesticides and alternative pest control methods, such as the Pesticide Environmental Stewardship Program and Integrated Pest Management.
- (+\$1,212,200) Increase workforce cost of living.
- (-\$687,300) Includes a reduction in lower priority activities dealing with special review, minor use, and the registration of conventional pesticides, in order to fund higher priority program activities like the registration of safer pesticides and the reassessment of food tolerances.
- (+\$250,000) Expansion of urban pesticide misuse activities in FY 2001 to include efforts to prevent the misuse of household pesticides.
- (-\$300,000) Decrease in FY 2000 Congressional Add-ons for wood preservatives and Design for the Environment not carried forward in FY 2001.
- (+\$838,200) Realignment of funding for Antimicrobials Registrations and Reregistrations.

## **Annual Performance Goals and Performance Measures**

### **Preventing Harmful Pesticides Exposure**

In 2001      Protect homes, communities, and workplaces from harmful exposure to pesticides and related pollutants through improved cultural practices and enhanced public education, resulting in a reduction (to be determined) in the incidences of pesticide poisonings reported nationwide.

In 2000      Protect homes, communities, and workplaces from harmful exposure to pesticides and related pollutants through improved cultural practices and enhanced public education, resulting in a reduction (to be determined) in the incidence of pesticide poisonings reported nationwide.

In 1999 The Agency made progress through improved agricultural practices and enhanced public education . The Agency concentrated on assessment of pesticide safety standards; education efforts targeted at workers and health care providers; and continued development of the pesticide environmental stewardship program.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
Environmental Stewardship Strategies	69	71% (cum)	73% (cum)	Complete
Labor population will be adequately trained (cumulative)	48%	50%	56%	Trained
% pesticides with high leaching and persistence potential managed to protect groundwater	0	10%	20%	Percentage

By the end of FY 2001, further refine the baseline for measuring pesticide poisonings and a pilot for measuring progress in reducing pesticide poisonings.

Baseline Measure

Baseline: Develop and assess more informative incident measures, stratifying incidents by type of effect or by toxicity category of pesticide, and expressing incident rates with demoninators such as area treated, pounds of pesticide used, etc. Establish a baseline for measuring pesticide poisonings within a group of states which are representative of national data.

### Aggregate Environmental Risks for Agriculture Pesticides

In 2001 Develop and test indicators of aggregate environmental risk from agricultural use of pesticides.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request
Pilot test indicators of aggregate aquatic environmental risk with comprehensive U.S. agricultural use data.			09/30/2001 Env Indicators
Baseline: Baseline will be established once indicators are validated.			

### Agriculture Partnership

In 2001 Implementation of 10-15 model agricultural partnership projects that demonstrate and facilitate the adoption of farm management decisions and practices that provide growers with a "reasonable transition" away from the highest risk pesticides.

In 2000 Implementation of 10-15 model agricultural partnership projects that demonstrate and facilitate the adoption of farm management decisions and practices that provide growers with a "reasonable transition" away from the highest risk pesticides.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request
Model agricultural partnership pilot projects		10-15	10-15 Addit. Pilots
Baseline: Baseline is the number of partners identified in 1999.			

### Verification and Validation of Performance Measures

#### Performance Measure: Labor Population will be adequately trained

**Performance Database:** Aggregation of training figures from state cooperative extension services (SCES) and voluntary worker protection training verification

**Data Source:** State cooperative extension services and Worker Protection program. SCES represents the education and training arm of state Agriculture Departments which extend programs to counties.

**QA/QC Procedures:** Training records (maintained at state or county level)

**Data Quality Review:** N/A

**Data Limitations:** Dependent on accurate record keeping at state or county level

**New/Improved Data or Systems:** None

**Coordination with Other Agencies**

EPA coordinates with various state, tribal, and federal agencies as well as with private organizations to ensure that our strategic approaches to pollution prevention and risk reduction are comprehensive and compatible with efforts already in place. Achievement of this objective depends in part on successful cooperation with our partners and the successful implementation of our regulatory programs. The number of partnerships with private and public entities serves as an effective indicator of EPA's progress in meeting its stated objectives.

Coordination with state lead agencies and with the U. S. Department of Agriculture (USDA) provides added impetus to the implementation of the Certification and Training program. States also provide essential activities in developing and implementing the Endangered Species, Groundwater, and Worker Protection programs. States are involved in numerous special projects and investigations, including emergency response efforts. The Regions provide technical guidance and assistance to the states and tribes in the implementation of all pesticide program activities.

EPA uses a range of outreach and coordination approaches for pesticide users, for agencies implementing various pesticide programs and projects, and for the general public. Outreach and coordination are essential to protect workers, endangered species, and groundwater; to provide training of pesticide applicators; to promote integrated pest management and environmental stewardship; and to support compliance through EPA's regional programs and those of the states and tribes.

In addition to the training that EPA provides to farm workers and restricted use pesticide applicators, EPA works with the state Cooperative Extension Services designing and providing specialized training for various groups (e.g., training to private applicators on the proper use of personal protective equipment and application equipment calibration, how to handle spill and injury situations, farm family safety, how to prevent drift, and pesticide and container disposal). Other specialized training is provided to public works employees on grounds maintenance, to pesticide control operators on proper insect identification, and on weed control for agribusiness.

### **Statutory Authorities**

Federal Fungicide, Insecticide and Rodenticide Act (FIFRA)

Federal Food, Drug and Cosmetic Act (FFDCA)

Food Quality Protection Act (FQPA) of 1996

Clean Water Act

## Environmental Protection Agency

### FY 2001 Annual Performance Plan and Congressional Justification

#### Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

##### Objective # 2: Reduce Lead Poisoning

By 2005, the number of young children with high levels of lead in their blood will be significantly reduced from the early 1990's.

##### Resource Summary (Dollars in thousands)

	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request	FY 2001 Req. v. FY 2000 Ena.
<b>Reduce Lead Poisoning</b>	<b>\$30,722.7</b>	<b>\$27,390.6</b>	<b>\$28,213.9</b>	<b>\$823.3</b>
Environmental Program & Management	\$17,010.5	\$13,678.4	\$14,501.7	\$823.3
State and Tribal Assistance Grants	\$13,712.2	\$13,712.2	\$13,712.2	\$0.0
Total Workyears	113.2	98.1	95.3	(2.8)

##### Key Programs (Dollars in thousands)

	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request
Lead Risk Reduction Program	\$16,911.3	\$12,807.1	\$13,573.2
Grants to States for Lead Risk Reduction	\$13,712.2	\$13,712.2	\$13,712.2
Administrative Services	\$0.0	\$75.1	\$77.3

##### FY 2001 Request

##### Lead Risk Reduction Program

During 2001, EPA will implement the Lead Abatement Program in all fifty states through EPA-approved state, territorial or tribal programs or, in some cases, through direct implementation



by the Agency. In the lead regulatory program, EPA will promulgate four major rules: 1) establishing health-based standards for lead in paint, soil and dust; 2) setting standards for training and certification for lead-based paint abatement activities in bridges and superstructures, and 3) renovation and remodeling activities; and 4) establishing new disposal standards for lead-based paint debris. EPA has been working with other Federal Agencies including HHS, HUD, DOD, DOE CPSC, and DOJ on developing a Federal Strategy to eliminate lead poisoning under the auspices of the President's Task Force on Environmental Health and Safety Risks to Children. These activities will make significant contributions to the objective of reducing the blood lead levels of our nation's most vulnerable children.

Lead affects virtually every system of the human body. Exposure to high doses of lead can cause coma, convulsions, and even death. Exposure to low levels of lead may cause harm gradually.

While potentially harmful to individuals of all ages, lead exposure is especially harmful to children. Their rapidly developing nervous systems are particularly sensitive to the effects of lead. In addition, children absorb a greater portion of lead than adults. Excessive exposure to lead in children may cause learning disabilities, lower intelligence, behavioral problems, growth impairment, permanent hearing and visual impairment, and other damage to the brain and nervous system.

The concentration of lead in a child's blood is typically used as an index of lead exposure. Recent studies have identified previously unrecognized effects of exposure to lead at lower levels and there has been increasing concern about blood-lead levels once thought to be safe. Since 1975, the Centers for Disease Control and Prevention (CDC) have lowered the blood-lead level considered elevated for children from 40 ug/dl (micrograms per deciliter) to 10 ug/dl. (The evidence of health effects below 10 ug/dl is not sufficiently strong to warrant concern).

Ingestion of lead-contaminated dust and soil through normal hand-to-mouth activity is the primary pathway of lead exposure to U.S. children under six years of age. Dust is contaminated by lead when: lead-based paint deteriorates; lead-based paint is disturbed in the course of renovation, repair, or abatement activity; or lead is tracked into, blown into, or otherwise enters the home from soil in the yard or other external sources (e.g., workplace). Soil contaminated with lead from deterioration of exterior lead-based paint, industrial emissions, and/or deposition of lead from past uses of leaded gasoline may be ingested directly or contribute to indoor levels of lead-contaminated dust when tracked into the home. Children may also be exposed to lead through ingesting lead-based paint chips from flaking walls, windows, and doors or from chewing on surfaces covered with lead-based paint. Other sources of lead exposure include, but are not limited to, lead-contaminated food and drinking water and occupational exposure to dust and airborne lead particles.

Considerable progress has been made in reducing environmental lead levels. The Federal government has taken steps to eliminate sources of lead including phasing-out leaded gasoline by EPA and banning of the production and sale of lead-based paint for residential use in 1978 by the Consumer Product Safety Commission (CPSC). In addition, EPA has implemented more stringent standards for lead in drinking water, and the domestic canning industry voluntarily eliminated the use of lead in solder to seal food cans.

Consistent with these improvements, the percentage of children with elevated blood-lead levels has declined over the last 20 years. The National Health and Nutrition Examination Survey (NHANES) conducted by the National Center for Health Statistics indicates that over the past two decades the average blood-lead level in children has decreased from 12.8 micrograms/deciliters (ug/dl) to 2.8 ug/dl. According to NHANES III Phase 2, completed in 1994, approximately 900,000 U.S. children under six had blood-lead levels equal to or exceeding the 10 ug/dl.

Lead exposure affects children across all socioeconomic strata and in all regions of the country. Children in poor inner-city families, however, are disproportionately affected because lead-based paint hazards are more prevalent in older housing and the overall ambient level of environmental lead tends to be higher in inner cities. Studies by the Centers for Disease Control indicate that children living in central cities are three to four times more likely to have blood-lead levels equal to or exceeding 10 ug/dl than those outside central cities, with the highest prevalence in cities where populations exceed 1 million.

According to EPA's report on the HUD National Survey of Lead-Based paint in Housing, 83 percent of privately-owned, occupied homes built before 1980, or 64.4 million homes, contain some lead-based paint. The likelihood, extent, and concentration of lead-based paint vary with the age of the building. Eighty-eight percent of privately-owned, occupied housing units constructed before 1940, 92 percent of units constructed between 1940 and 1959, and 76 percent of units constructed between 1960 and 1979 contain some lead-based paint. Over 12million (or 19 percent) of these pre-1980 homes with some lead-based paint have children aged 7 years or younger in residence. (The HUD National Survey presents results for children aged 7 years or younger. Title X, which was enacted after the survey was conducted, focuses upon children younger than 6 years.

EPA, under the 1992 Residential Lead-Based Paint Hazard Reduction Act (Title X), assists and guides federal activities aimed at reducing the exposure of children in homes with lead-based paint. Other Federal agencies, such as the Departments of Housing and Urban Development (HUD) and Health and Human Services (HHS), via the National Institute for Occupational Safety and Health and the Centers for Disease Control and Prevention, also play important roles. In the past six years, EPA has made great strides in protecting children from lead poisoning through a combination of rulemaking, education, research, and partnerships. EPA has promulgated regulations to set up a federal infrastructure, including the lead accreditation, certification and workplace standards rule for targeted housing, the lead real estate notification and disclosure rule (with HUD), standards identifying lead hazards in paint, dust and soil, and standards for the disposal of lead painted debris. The Agency has also recently proposed rules on identifying hazardous levels of lead in paint, soil and dust. The public education programs and tools developed include a national clearinghouse to provide the public with information on lead; grants to states and tribes to establish accreditation; certification and workplace standards programs for target housing; and a recently promulgated rule requiring disclosure of information about hazards during renovation and remodeling of housing with lead-based paint.

#### Grants to States for Lead Risk Reduction

By 2001, EPA will have approved those states and Tribes that intend to run Section 402 programs for lead accreditation certification, and workplace standards in target housing. All states and Tribes, however, will not adopt the program, and we anticipate that EPA will be required to run a Federal lead program in 15 to 20 states and in most of the tribal lands and U.S. territories. Federally run state programs will require additional resources.

With implementation of the training, certification and accreditation program by states, territories or tribes, or in some cases by EPA, additional data will become available to help measure progress in reducing childhood lead poisoning and elevated blood-lead levels. In the future, EPA will be able to measure progress in reducing lead-based paint exposures through the collection of data associated with the Lead Abatement Program. In addition, the Agency will know how many professionals become certified as risk assessors, inspectors, workers or supervisors. This data will be used to measure the growth of a well-trained workforce capable of performing abatements safely and reliably.

Starting in 2001, a national infrastructure will be in place to ensure that homeowners and renters have access to qualified lead abatement professionals that are properly trained to identify and safely reduce lead hazards in the home.

#### **FY 2001 Change from FY 2000 Enacted**

##### EPM

- (+\$378,200) Increase in workforce cost of living.
- (-\$228,250 -2.6 FTE) Reflects disinvestment required to meet reduced Agency FTE ceiling.
- (+\$600,000) Reflects a redirection of resources in support of EPA's direct implementation of lead-based certification and training requirements in States that are not adopting this program.

## Annual Performance Goals and Performance Measures

### Lead-Based Paint Abatement Certification and Training

- In 2001 Administer federal programs and oversee state implementation of programs for lead-based paint abatement certification and training in 50 states and on tribal lands, to reduce exposure to lead-based paint and ensure significant decreases in children's blood levels by 2005.
- In 2000 Administer federal programs and oversee state implementation of programs for lead-based paint abatement certification and training in 50 states, to reduce exposure to lead-based paint and ensure significant decreases in children's blood levels by 2005.
- In 1999 EPA continued building the lead-based paint abatement certification and accreditation program by approving 30 state and territory and two tribal programs. In 17 states that do not take on the program, EPA will run certification and accreditation.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
Develop state programs for the training, accreditation and certification of lead-based paint abatement professionals.	27	30-35		States
A Federal training, accreditation and certification program will be established and administered in states which choose not to seek approval from EPA to administer.	28	15-20		Federal
Develop tribal programs for training, accreditation and certification of lead-based paint abatement professionals. (cum)		4	6	Trib.Prog
<p>Baseline: Measure is number of states in which either a Federal or state program is operating. Approved programs will lead to additional homes abated and certified clean of lead. Baseline for number of abatements and certified professionals will be established in 2000. Two tribal programs were approved in FY 1999.</p>				

### Lead Regulatory Standards

- In 2001 Prepare final rules for disposal of lead-based paint debris and establish standards regarding hazardous levels of lead in paint, dust and soil.
- In 2000 Prepare final rules for disposal of lead-based paint debris and establish standards regarding hazardous levels of lead in paint, dust and soil.
- In 1999 In FY 1999, EPA initiated two regulations necessary for a national program to address the hazards from lead-based paint. The Lead Debris Disposal Rule was proposed in December 1998. Comment review and final rule development for the Lead Hazard Standards Rule continued in 1999.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
Lead Debris Disposal Rule	Comments	Comments	1 Final	Rule
Lead Hazard Standards Rule - develop final	Comments	Comments	1 Final	Rule
Baseline: Regulations and standards, where none previously existed, will promote safer homes and workplaces, disposal rule reduces costs of lead paint abatement. Hazard standards set consistent guidelines for lead paint abatement.				

**Training, Accreditation and Certification for Lead Paint**

- In 2001 Prepare rules on training, accreditation and certification requirements for renovation and remodeling activities and training, accreditation and certification requirements for lead-based paint activities in buildings and superstructures.
- In 2000 Prepare rules on training, accreditation and certification requirements for renovation and remodeling activities and training, accreditation and certification requirements for lead-based paint activities in buildings and superstructures.
- In 1999 Development continued training, accreditation and certification rules: 1) renovation and remodeling activities and 2) deleading on bridges and structures. When these rules are promulgated, a full set of national standards for safe, effective reduction of lead-based paint hazards will be place.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
Lead Renovation Information Rule	Final			Rule
Develop proposed rules for lead paint abatement/ renovation & remodeling and bldg./super. rule	2 Proposed	2 Proposed	2 Final	Rules
Baseline: Rule development initiated in 1998; no consistent standard for abating lead paint for renovation or buildings/superstructures existed prior to Title X.				

**Coordination with Other Agencies**

The success of EPA’s lead program depends in large part on coordination with other Federal agencies, states and Indian tribes. In 2001, EPA will promulgate two rules which will require close coordination with HHS, HUD and the Occupational Safety and Health Administration (OSHA). EPA will also work closely with state and Federally recognized Indian tribes to ensure that 1) authorized state and tribal programs continue to comply with requirements established under the Toxic Substances Control Act (TSCA); and 2) the ongoing Federal target accreditation housing certification and training program for abatement contractors continues to be administered effectively. In addition, EPA has been working with HHS, HUD, DOD, DOE, CPSC, and DOJ to develop a Federal strategy to eliminate lead poisoning under the auspices of the President’s Task Force on Environmental Health and Safety Risks to Children.

**Statutory Authorities**

Toxic Substances Control Act (TSCA) section 4 , 5, 6, 8, 12(b) and 13 (15 U.S.C. 2603-5, 2607, 2611 and 2612)

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) sections 3, 4, 5, 6, 11, 18, 24, and 25 (7 U.S.C. 136a, 136a-1, 136c, 136d, 136i, 136p, 136v, and 136w)

## Environmental Protection Agency

### FY 2001 Annual Performance Plan and Congressional Justification

#### Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

#### Objective # 3: Safe Handling and Use of Commercial Chemicals and Microorganisms

By 2005, of the approximately 2,000 chemicals and 40 genetically engineered microorganisms expected to enter commerce each year, we will significantly increase the introduction by industry of safer or "greener" chemicals which will decrease the regulatory management by EPA.

#### Resource Summary (Dollars in thousands)

	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request	FY 2001 Req. v. FY 2000 Ena.
<b>Safe Handling and Use of Commercial Chemicals and Microorganisms</b>	<b>\$42,868.2</b>	<b>\$66,866.8</b>	<b>\$70,983.3</b>	<b>\$4,116.5</b>
Environmental Program & Management	\$31,509.1	\$50,216.7	\$52,754.0	\$2,537.3
Science & Technology	\$11,359.1	\$16,650.1	\$18,229.3	\$1,579.2
Total Workyears	340.9	435.7	428.7	(7.0)

#### Key Programs (Dollars in thousands)

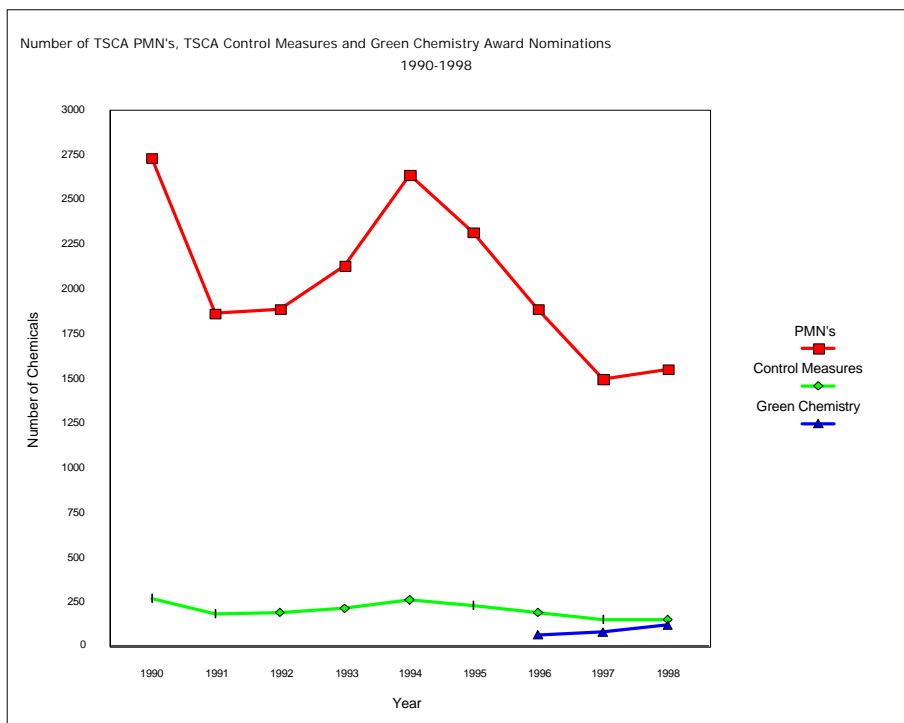
	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request
Endocrine Disruptor Screening Program	\$1,308.5	\$5,444.5	\$3,890.0
New Chemical Review	\$14,659.5	\$13,261.4	\$13,697.6
Existing Chemical Data, Screening, Testing and Management	\$14,225.3	\$20,394.5	\$24,412.4
National Program chemicals: PCBs, Asbestos, Fibers, and Dioxin	\$3,268.3	\$5,753.6	\$5,648.5
Rent, Utilities and Security	\$0.0	\$0.0	\$4,189.7

## FY 2001 Request

This objective includes work in four broad program areas, including existing chemicals (chemicals in commerce), new chemicals (chemicals in the process of commercialization), national program chemicals (including mercury, fibers, dioxin, and PCB's), and the endocrine disruptor screening and testing program. These programs are pivotal to reducing current and future risk by promoting the design, development, and application of safer chemicals as well as safer industrial processes and technologies. The major program focus in FY 2001 is the Chemical Right-to-Know (CRTK) Initiative. Currently there is little information available on the potential hazards of the 2,800 chemicals produced in the highest volumes (one million pounds or greater) in the U.S. Working in partnership with industry, the Agency will ensure that basic screening-level testing on these chemicals is made publicly available.

### New Chemicals Program

The Toxic Substances Control Act (TSCA) requires EPA to review a chemical or microorganism before it is manufactured commercially (i.e., a "new" chemical) to determine whether it can be handled and used safely.

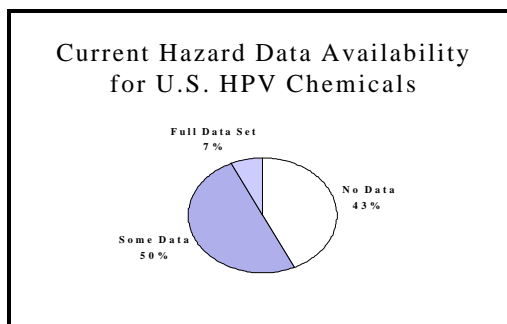


If the review shows that an unreasonable risk may be posed to people or the environment, control measures are put in place to ensure the chemical's safety in the marketplace. Since 1979, EPA has reviewed more than 33,000 premanufacture notices (PMN) and taken actions to control risks for about 10% of these chemicals and microorganisms. As part of its review of new chemical substances, the Agency has developed

an array of innovative, efficient screening mechanisms. A number of these tools have been made available to industry to assist in the development and improvements of safer chemicals.



The Agency fosters the production of safer chemicals in a variety of ways, through regulatory intervention, through voluntary programs, and through outreach and technical assistance. Looking at commercial chemicals, EPA sees tremendous opportunities for increasing the introduction and use of safer or “greener” chemicals as another way to build on the success of the New Chemicals program. Safer or “greener” chemicals and processes are less toxic, result in lower exposure, are more energy efficient, generate less (or less toxic) waste, or have other similar attributes. The more such chemicals are available to replace riskier chemicals currently in use, the greater will be the opportunity to achieve safer workplaces and communities.



Green Chemistry Challenge Awards are made annually to the top entries for new safer chemicals, safer manufacturing processes and alternative solvents. As part of a new chemical review for commercial chemicals in the process of commercialization, the Agency routinely works with industry to share any options and suggestions it may have on process improvements, or to produce new chemicals more safely. The New Chemicals Program also examines new biotechnology products to ensure that potential risks have been evaluated and that adequate testing has been conducted before they are released into the environment. In many cases, biotechnology products are safer substitutes or may contribute to source reduction. Recent regulatory changes have led to an increased rate of new biotechnology chemicals submitted for review. Other outreach and technical assistance to encourage safer chemicals and chemical production and use include green chemistry and green engineering textbooks and other publications, a reference compendium, laboratory manuals, symposia and actual course work materials, all developed in partnership with industry, professional organizations and universities.

### Existing Chemicals Program

A crucial element of EPA’s approach to promoting industry’s introduction of safer chemicals and processes is to fulfill the mandate under TSCA to identify and control unreasonable risks associated with chemicals which are already in commerce. The identification of existing chemicals that pose risks provides additional incentives for industry to look for safer new chemicals or processes. Chemical information, especially data on exposures and health and environmental effects, is essential for screening, assessing and managing chemical risks. In dealing with the more than 75,000 chemicals currently in commerce, EPA has worked in partnership with other Federal agencies, industry, and other customers, to develop both traditional regulatory and innovative non-regulatory approaches to control unreasonable risks. Today, risk management controls are already in place or planned for many chemicals whose risks are well-characterized, such as asbestos and polychlorinated biphenyls (PCBs). In 2001, the Agency will expand the range of existing chemicals it will screen, as part of the Chemical Right-to-Know Initiative. The Agency will continue working with other countries in the Organization for Economic Cooperation and Development’s (OECD’s)

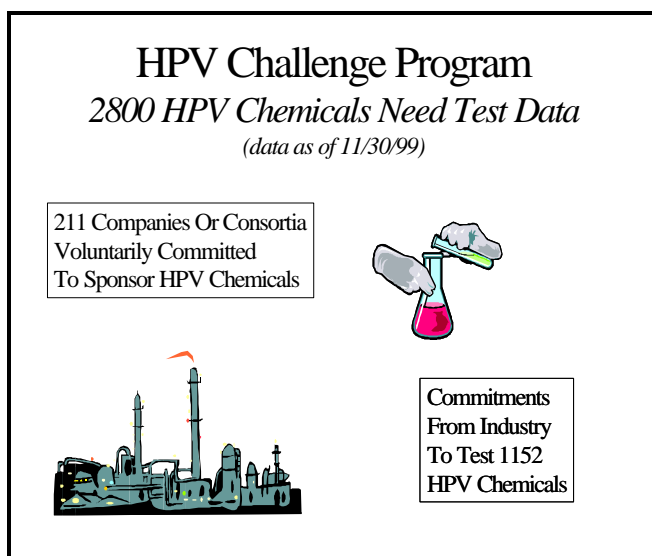
Existing Chemicals Program by working with U.S. industry to nominate existing high production volume chemicals for sponsorship in the OECD.

### Chemical Right-to-Know Initiative

This initiative will focus on the 2,800 highest production volume (HPV) chemicals manufactured in or imported (in quantities of at least one million pounds) to the U.S. We have little hazard information in the public domain for many of these chemicals that we use daily. Only 7 percent of the 2,800 have a full set of basic information on health and environmental effects. Only 25 percent of consumer chemicals have a full set of basic information.

Without this information, we may not be able to effectively identify and evaluate the human health and environmental risks posed by these chemicals. In addition, relatively little is known about the unique impact on children's health of chemicals that are widely used in children's products or otherwise have high potential for exposure to children. Similarly, relatively little is known about "PBT's"-the class of chemicals that are the most persistent, bioaccumulative, and toxic. PBT's are toxic chemicals that do not degrade over time in the environment, and build up in plant and animal tissue.

Through the Chemical-Right-to-Know Initiative, basic screening-quality information for all 2,800 High Production Volume chemicals will be available to the public through a voluntary industry challenge program and a series of test rules for those data not obtained through the voluntary program. The resulting hazard data will be broadly disseminated to the public in an easy-to-use format.



Chemicals that children are disproportionately exposed to will also be subject to additional testing, under a parallel voluntary children's health testing initiative that will be launched in 2000. Much of the focus of the Agency in FY 2001 will be on small groups (or categories) comprised of some of the 2,800 High Production Volume chemicals. Such categories of chemicals can be considered together because of their similar structure or toxicological properties, and are examined as a group. The Agency will be actively engaged in assessing the validity

of such categories of chemicals, and allowing the public to access the hazard data on these chemicals as the data are obtained from industry. In addition, EPA will amend its Inventory Update Rule in FY 2001 to develop a Chemical Use Inventory (CUI) System as another tool to aid in carrying out risk reduction strategies. Use information will allow the Agency to identify chemical exposure pathways and potential unsafe uses, better assess risks associated with exposures, and identify household chemicals.

The underlying need for the Chemical Right-to-Know Initiative is the lack of critical toxicological and environmental effects information on HPV chemicals already prevalent in the marketplace. This Initiative will help prioritize EPA's chemical risk assessment and management activities and increase the amount of information on chemical exposures, hazards and risks that EPA can provide to the public. Communities will be empowered with this new information to take action to reduce their potential risks, complementing Agency efforts. Further, information on toxic chemicals will be made available to state and local governments to help them conduct risk assessment and management activities.

### National Program Chemicals

Some chemicals were introduced into commerce before the risks were known. A number of these chemicals are both prevalent and high-risk. The Agency has established a national program to manage reductions in use, safe removal, disposal or containment of these chemicals, as appropriate. Significant risks are well established for PCBs, asbestos, and dioxin, for example, and reductions in use and releases are important to reducing exposure of the general population and also sensitive subpopulations. Risk reduction efforts on these chemicals will continue to meet the mandates under TSCA and fulfill the commitments made in domestic and international agreements.

In 2001, EPA's PCB control efforts will continue encouraging phase out of PCB electrical equipment, ensuring proper storage or waste disposal methods and capacity, and fostering PCB site cleanups. Recent rulemakings have provided industry with the opportunity to propose alternative risk-based PCB cleanups, which the Agency will review and determine whether the proposal is accepted. Also, the Agency will continue to review existing approvals for facilities that treat, store and/or dispose of PCBs, on a five to ten year renewal cycle. The Agency will also pursue opportunities for improved risk reduction for mercury, and for certain industrial fibers that pose risks in the workplace. Outreach and technical assistance will continue in the asbestos program for schools, in coordination with the Occupational Safety and Health Administration and the states.

EPA is committed to developing an Agency-wide dioxin strategy that would respond to new scientific findings concerning the risk of dioxin and address dioxin risk management in a more comprehensive cross-media approach. EPA will continue efforts on reducing dioxin exposure, focusing on identifying and quantifying the link between dioxin sources and the general population exposure. Gaining this understanding is central to the successful implementation of an effective dioxin strategy.

## Endocrine Disruptor Program

EPA established the Endocrine Disruptor Screening and Testing Advisory Committee (EDSTAC), to provide advice and counsel to the Agency on a strategy to screen and test chemicals and pesticides that may cause endocrine disruption in humans, fish, and wildlife. EDSTAC's recommendations were published in 1998. During 1999, EPA began work on two major activities to implement the screening and testing program: the standardization and validation of mammalian screening assays and development of the priority setting database. Work will continue in both of these areas in FY 2000. EPA will complete work on the priority setting data base in FY 2000 and will complete validation of the mammalian Tier 1 screens in 2001. EPA will require screening chemicals in commerce for endocrine disrupting potential in FY 2002. It is expected that by 2005, all high production volume chemicals will have been screened for endocrine disrupting potential and testing will have been initiated on some of the resulting priority chemicals using the methods validated by EPA.

### Research

There are over 20,000 pesticide products containing 620 active ingredients on the market. Each year, 1 billion pounds of active ingredients in conventional pesticides are applied in the United States. There are over 80,000 existing chemicals on the Toxic Substances Control Act (TSCA) inventory and each year an additional 2,000 chemicals are added. Release of these chemicals into the environment through agricultural and nonagricultural application and other means poses serious risks to both human health and ecosystems (e.g., plant and wildlife). To reduce human health and ecological risks in communities, homes, work places and ecosystems associated with release of pesticides and other toxic chemicals, research is needed to develop/improve methods to evaluate hazard on human health endpoints, models to improve the biological basis for human health risk assessment, and methods to identify ecological hazards, predict ecological risk, and characterize environmental stressor interactions.

Test methods developed under this research program will be incorporated into test guidelines under which manufacturers will be required to submit data to the Agency on pesticides in accordance with the Fungicide, Insecticide, and Rodenticide Act (FIFRA) and toxic substances in accordance with TSCA.

### *Human Health Research*

Humans are exposed to thousands of chemicals either singly or in various combinations every day through the air, drinking water, food, and dust. The goal of the health effects research program is to develop and validate methods to detect, characterize and quantify adverse human health effects that result from exposure to pesticides and other toxic substances; develop and validate models to predict the human health effects of exposure to pesticides and other toxic substances; and provide data on the health effects of selected pesticides and other toxic chemicals, alone or in combination.

In FY 2001, health effects research will continue to focus on development of mechanistically-based predictive models for human health risk assessment, such as structure-

activity-relationship models to help determine testing needs under Section 5 of TSCA, which addresses new chemicals. Research will also be conducted to address the needs for methods to evaluate the special sensitivities of certain subpopulations, such as children, based on age, genetic factors and health status. The methods will be used to evaluate endpoints of toxicity that are qualitatively different from those of concern for the general population.

Exposure research will support the Agriculture Health (AgHealth) Study in FY 2001. The Agency will cooperate with NCI, NIEHS, and NIOSH in studying the health of men and women in agriculture. The goal of EPA's involvement is to evaluate how accurately the study questionnaire classifies pesticide application activities and enables the prediction of applicator exposure and dose. The study will allow comparisons between different metrics for estimating exposure and dose, identify and quantify key exposure factors, determine if there is an association between pesticide application and biomarker levels in family members, evaluate simple cost-effective methods for other pesticide exposure studies, and provide recommendations that may lead to reduced pesticide exposures.

The information developed from application of methods developed under this research program will significantly increase understanding of the impacts of specific classes of pesticides and toxic substances on human health. The Agency will incorporate these methods into its collection of testing guidelines under which manufacturers will be required to submit data to the Agency on pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and toxic substances under the Toxic Substances Control Act (TSCA).

### *Ecological Research*

Over the long term, ecosystems degradation poses one of the most serious risks to human health and economic sustainability. Our Nation's ecosystems provide valuable renewable resources such as food, fiber, water storage, and wood. Stresses to the environment can impact these resources and other critical self-purifying environmental processes. Understanding the effects of exposures to environmental stressors and the uncertainties surrounding risk associated with our current definitions of stressors on our environment is an important long-term research goal. Ecosystems protection remains a high priority area due to the need for better understanding of environmental stressors and their impacts on the health and sustainability of ecosystems. The mechanisms and consequences of changes in the biological, chemical and physical attributes of ecosystems due to stressors are poorly understood and represent significant challenges to the research community.

In FY 2001, the Agency will continue to support research to improve our understanding of ecosystem stressors. Ecosystem effects efforts will continue to focus on: 1) developing and validating predictive models (e.g., biologically-based dose-response, structure-activity-relationship) to identify and characterize ecological hazard and risk, 2) developing hazard identification techniques for numerous ecological health end points for various wildlife species, and 3) evaluating data on the direct stressor effects of toxic chemicals, including pesticides, on experimental ecosystems, including wildlife species, and on interactions of such exposures with other anthropogenic and/or natural stressors. This program is consistent with the Agency Strategic Plan for research.

In addition, risk assessment research will continue to develop the tools, methodology, and data to conduct probabilistic assessments of ecological risk from exposure to pesticides, which includes development of user friendly models that link distribution of exposure to distribution of toxicity to estimate the magnitude and probability of effects. Also included is model validation and sensitivity analyses of the model to define the areas of research with the best likelihood of reducing uncertainty in model predictions.

This research program is also supported through the Agency's Postdoctoral Initiative. The FY 2001 request continues the third year of the effort to enhance our intramural research program by supporting 3.0 additional postdoctoral positions under this objective. This enhancement continues to build upon the positive response by the academic community to EPA's announcement of 50 postdoctoral positions for FY 1999.

### **FY 2001 Change from FY 2000 Enacted**

#### EPM

- (-\$845,390; -9.1 FTE) Reflects disinvestment required to meet reduced Agency FTE ceiling.
- (+\$827,300) Increase in workforce cost of living.
- (+\$3,154,000) Reflects investment in Chemical Right-to-Know Initiative in response to substantially greater voluntary participation by industry in High Production Volume Challenge. Greater than expected submission of chemical test plans and results requires additional resources for data management, QA/QC, analysis, and public communication. Investment also supports development of non-animal test procedures.
- (+\$282,400) Reflects investment to help industry use EPA tools to assess risks of new chemicals prior to submission of Pre-Manufacture Notices (PMN's), saving industry and EPA resources in administration of new chemicals review function.
- (+\$500,000) Reflects investment to support collection and management of TSCA Inventory Update data, providing exposure information needed to augment hazard data (being obtained via CRTK Initiative) in assessing risks of toxic chemicals in commerce.
- (-\$2,019,600) Portion of Congressional Add-on for the endocrine disruptor screening program not carried forward in FY 2001.

#### Research

#### S&T

- (+\$800,000 extramural S&T) In FY 2001, the Agency will cooperate with NCI, NIEHS, and NIOSH on the AgHealth Study. The goal of EPA's involvement is to evaluate how

accurately the study questionnaire classifies pesticide application activities and enables the prediction of applicator exposure and dose. The study will allow comparisons between different metrics for estimating exposure and dose, identify and quantify key exposure factors, determine if there is an association between pesticide application and biomarker levels in family members, evaluate simple cost-effective methods for other pesticide exposure studies, and provide recommendations that may lead to reduced pesticide exposures. This research will enhance the Agency's ability to meet its performance goal of developing exposure data needed to reduce community exposures to environmental stressors.

- (+\$881,500, +1.0 workyears) The R&D program, including infrastructure support costs, is spread across eight of the ten goals in the Agency's GPRA/budget structure. Based on a review of actual infrastructure utilization under each goal (i.e., utilization of workyears and associated PC&B, travel, operating expenses, and working capital fund), adjustments are being made across goals to more accurately reflect expectations for use in FY 2001.

## Annual Performance Goals and Performance Measures

### New Chemicals and Microorganisms Review

In 2001      Ensure that of the up to 1800 new chemicals and microorganisms submitted by industry each year, those that are introduced in commerce are safe to humans and the environment for their intended uses.

In 2000      Ensure that of the up to 1800 new chemicals and microorganisms submitted by industry each year, those that are introduced in commerce are safe to humans and the environment for their intended uses.

In 1999      EPA used TSCA authorities to review 1,717 premanufacture notices (PMNs) and exemptions. EPA took control actions on 20 of the 31 notices involving PBTs. EPA received 172 toxicity tests on over 103 chemicals.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
TSCA Pre-Manufacture Notice Reviews	1717	1800	1800	Notices

Baseline:      Over 33,000 PMN's reviewed; increasing trends in number of 'greener' or safer chemicals reviewed.

### Green Chemistry Challenge Awards

In 2001      Continue to stimulate development of new safe ("green") chemicals and safe chemical processes through public recognition for outstanding achievements in this field.

In 2000      Continue to stimulate development of new safe ("green") chemicals and safe chemical processes through public recognition for outstanding achievements in this field.

In 1999 EPA received 136 nominations in five categories, more than two and a half times its target. The efforts upon which these nominations were based produced reductions in use and emissions of hazardous substances, savings in capital investments, reduced worker exposure, and improved product yields.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request
Green Chemistry Challenge Award	134	50	Applications
In the Green Chemistry Challenge Award Program, number of alternative feedstocks, processes, or safer products identified/used by industry.			50 Product/process
Baseline:	Cumulative number of companies, organizations and individuals (160) competing for Green Chemistry Award.		

**Testing of Chemicals in Commerce for Endocrine Disruption**

In 2001 Complete standardization and validation of mammalian screens and tests. Begin testing chemicals in commerce for endocrine disrupting potential.

In 2000 Begin testing chemicals in commerce for endocrine disrupting potential.

In 1999 The Agency completed a number of key activities in FY 1999 including the High-Throughput Pre-Screening (HTPS) feasibility demonstration study, initiated the development of a Priority Setting Database, and started work on standardization of several screens and tests for use in the EDSP.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request
Develop program to screen 5,000 chemicals for endocrine disruption potential	Developed		Program
Initiate Validation and Screening Protocols		2 Initiated	2 Completed Protocols
Baseline:	Universe of 87,000 chemicals including pesticides, commodity chemicals, food additives, cosmetics and others. Screening and testing strategy completed in 1998.		

**Chemical Right-to-Know Initiative**

In 2001 EPA will initiate safety reviews on chemicals already in commerce by obtaining data on an additional 10% of the 2800 HPV chem. on the master test list, as part of the implementation of a comprehensive strategy for screening, testing, classifying and managing the risks posed by commercial chemicals.

In 2000 EPA will initiate safety reviews on chemicals already in commerce by obtaining data on an additional 10% of the 2800 HPV chem. on the master test list, as part of the implementation of a comprehensive strategy for screening, testing, classifying and managing the risks posed by commercial chemicals.

In 1999 EPA challenged industry to take responsibility for collecting data on the effects of the chemicals they manufacture and over 200 companies and consortia had voluntarily committed to make public, before the end of 2005, basic hazard data on over 1,150 of the approx. 2,800 HPV chemicals.

Performance Measures:	FY 1999	FY 2000	FY 2001
-----------------------	---------	---------	---------



	Actuals	Estimate	Request	
TSCA Chemical Use Inventory Rule	1 Proposed		1 Final	Rule
Under Chemical Right-to-Know Initiative, secure voluntary agreements from chemical manufacturers to test high production volume chemicals		1000		Chemicals
Through chemical testing program, obtain test data for high production volume chemicals on master testing list.		50	500	Chemicals
Baseline:	Baseline is the number of chemicals for which voluntary testing agreements are secured or for which test data are obtained, from start of Chemical Right-to-Know Initiative. Of 2,800 high volume productions chemicals, 7% have full data.			

### Address Toxic Fiber Risks

- In 2001 Reduce exposure to toxic fibers by identifying fibers of concern and addressing risks through outreach, voluntary initiatives, and regulatory actions.
- In 2000 Reduce exposure to toxic fibers by identifying fibers of concern and addressing risks through outreach, voluntary initiatives, and regulatory actions.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
Develop Asbestos Worker Protection Rule		1 Proposed	1 Final	Rule
Baseline:	Current level of exposure of public and workers to asbestos and other fibers of concern (e.g. ceramic).			

### Safe PCB Disposal

- In 2001 Reduce the industrial burden and costs of managing the safe disposal of PCBs
- In 2000 Reduce the industrial burden and costs of managing the safe disposal of PCBs
- In 1999 Technical Corrections to the 1998 PCB Disposal Amendments was issued on 6/24/99. The PCB Transformer Reclassification Rule will be promulgated in FY 2000. EPA published a notice in the FR in October 1999 soliciting additional information to support the Non-Liquid PCB Use Authorization Rule.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
Revisions to PCB Disposal Amendments, Non-liquid PCB use authorization, Transboundary movement of PCBs	1			Proposed
Safe Disposal of Transformers		20,000	20,000	Transformers
Safe Disposal of Capacitors		35,000	35,000	Capacitors
Safe Disposal of Bulk Waste		660,000,000	660,000,000	Kg Bulk Waste

Develop Final Transformer Reclassification Rule 1 Final Rule

Baseline: Amount of PCB's that were in storage for disposal as of 1995; cost estimates baselines prepared for rulemakings.

### Research

#### **Research on Commercial Chemicals and Microorganism**

In 2001 Develop exposure data, and health risk assessment methodologies, and control technologies to improve the characterization of health risks and reduce community exposures to environmental chemical stressors

In 2000 Provide methods and models to evaluate the impact of environmental stressors on human health and ecological endpoints for use in guidelines, assessments, and strategies.

In 1999 Completed summary of in vitro methods used to sort chemicals acting through one-electron reactive mode of toxic action, which will provide the Agency with an additional approach to the classification of potential ecological hazard posed by new and existing chemicals.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request
-----------------------	--------------------	---------------------	--------------------

Peer reviewed publication on the in vitro screening methods for one-electron reactions.

Develop an animal model to assess susceptibility of the developing immune system to environmental contaminants.			1	model
---	--	--	---	-------

Guidance in the use of Structure Activity Relationships (SAR) computer technologies.			1	guidance
--	--	--	---	----------

Baseline: Improve in vitro hazard identification methods for one-electron mechanisms of toxicity among industrial chemicals.

#### **Verification and Validation of Performance Measures**

##### **Performance Measure: TSCA Premanufacture Notice Reviews**

**Performance Database:** New Chemicals Management Information Tracking System (MITS) tracks premanufacture notices (PMNs), low volume and test market exemptions; gives number of PMNs submitted and final disposition, whether regulated or not regulated; time span from beginning of PMN program (1979) to present.

**Data Source:** As needed, industry submits requests for review to the Agency, including information on chemicals to be manufactured and imported, chemical identity, manufacturing process, use, worker exposure, environmental releases and disposal.

**QA/QC Procedures:** LAN server contains confidential business information (CBI) support documents on each of these chemicals; data undergo QA/QC by EPA before being uploaded to LAN. EPA always checks for consistency among similar chemicals in databases.

**Data Quality Review:** Review of industry data; EPA staff scientists and contractors perform risk screening and assessment which could lead to regulation.

**Data Limitations:** None known

**New/Improved Data or Systems:** None planned

### **Coordination with Other Agencies**

EPA's chemical testing data provides critical information for the Occupational Safety and Health Administration's (OSHA) worker protection programs, the National Institute for Occupational Safety and Health (NIOSH) for research, and the Consumer Product Safety Commission (CPSC) for informing consumers about products through labels. EPA frequently consults with these agencies on project design, progress and the results of chemical testing projects.

Mitigation of existing risk is a common interest for other federal agencies addressing issues of asbestos and PCB's. EPA will continue to coordinate interagency strategies for assessing and managing risks from asbestos and other fibers. Coordination on the safe PCB disposal is an area of ongoing emphasis with the Department of Defense, and particularly the Navy, which has special concerns regarding ship scrapping. PCB's and mercury storage and safe disposal are also important issues requiring coordination with the Department of Energy as they develop alternatives and explore better technologies for handling high-risk chemicals.

## Research

EPA is among six agencies within the federal government that conduct intramural human and environmental health research (EPA and HHS (NIEHS, NCI/NIH, CDC, FDA, and ATSDR)). The Agency conducts research in all elements of the human health risk assessment paradigm (e.g., exposure, effects, risk assessment, and risk management), making our contribution unique within the federal government. EPA is widely recognized both nationally and internationally for its work in identifying the relationship between human health effects and exposure to environmental pollutants. Basic research on the mechanisms underlying these effects and problem driven research programs contribute significantly to the Agency's ability to fulfill its goals and objectives under several environmental mandates. Collaborations with other federal and international research organizations create an atmosphere in which the impact of the individual programs is strengthened and the overall positive impact on public health is significantly increased. For example, in 2001, the Agency will cooperate with NCI, NIEHS, and NIOSH on the AgHealth Study, which is a study of the health of men and women in agriculture. The goal of EPA's involvement is to evaluate how accurately the study questionnaire classifies pesticide application activities and enables the prediction of applicator exposure and dose.

## **Statutory Authorities**

Toxic Substances Control Act (TSCA) section 4 , 5, 6, 8, 12(b) and 13 (15 U.S.C. 2603-5, 2607, 2611 and 2612)

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) sections 3, 4, 5, 6, 11, 18, 24, and 25 (7 U.S.C. 136a, 136a-1, 136c, 136d, 136i, 136p, 136v, and 136w)

Federal Food, Drug, and Cosmetic Act (FFDCA)

## Research

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

Toxic Substances Control Act (TSCA)

Federal Food, Drug, and Cosmetic Act (FFDCA)

## Environmental Protection Agency

### FY 2001 Annual Performance Plan and Congressional Justification

#### Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

#### Objective # 4: Healthier Indoor Air

By 2005, fifteen million more Americans will live or work in homes, schools, or office buildings with healthier indoor air than in 1994.

#### Resource Summary (Dollars in thousands)

	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request	FY 2001 Req. v. FY 2000 Ena.
<b>Healthier Indoor Air</b>	<b>\$29,095.7</b>	<b>\$39,915.5</b>	<b>\$41,159.0</b>	<b>\$1,243.5</b>
Environmental Program & Management	\$16,144.2	\$27,883.6	\$29,729.1	\$1,845.5
Science & Technology	\$4,793.5	\$3,873.9	\$3,271.9	(\$602.0)
State and Tribal Assistance Grants	\$8,158.0	\$8,158.0	\$8,158.0	\$0.0
Total Workyears	146.2	126.7	144.0	17.3

#### Key Programs (Dollars in thousands)

	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request
Air,State,Local and Tribal Assistance Grants: Other Air Grants	\$8,158.0	\$8,158.0	\$8,158.0
Indoor Air: School	\$3,717.7	\$4,288.4	\$5,120.9
Indoor Air Research	\$2,818.7	\$0.0	\$0.0
Indoor Air: Homes	\$3,268.2	\$1,955.1	\$3,388.5
Indoor Air: Buildings	\$992.0	\$1,672.7	\$1,693.4
Administrative Services	\$0.0	\$196.8	\$212.8

## **FY 2001 Request**

### Health Effects of Indoor Air Pollution

Americans spend about 90 percent of their time indoors, where they are exposed to levels of pollutants that are often higher than outdoors. As a result, indoor air pollution poses high risks to human health, especially to sensitive populations, and has ranked among the top four environmental risks in relative risk reports. Estimates of the economic costs to the nation of poor indoor air quality, including lost worker productivity, direct medical costs for those whose health is adversely affected, and damage to equipment and materials, are on the order of tens of billions of dollars per year. (Report to Congress on Indoor Air Quality, EPA/400/1-89-001). In January 2000, the National Academy of Sciences affirmed the significance of indoor triggers of asthma and the alarming increase in asthma rates nationwide (Clearing the Air: Asthma and Indoor Air Exposures, (ISBN) 0-309-06496-1, January 2000).

Indoor air pollutants continue to have significant impacts in our homes, schools, and workplaces.

- Nearly 1 in 13 school-grade children has asthma, and there is substantial evidence that indoor environmental exposures play a significant role in triggering asthma symptoms, and, in some instances, are causally linked to the development of the disease.
- Radon is the second leading cause of lung cancer and is responsible for an estimated 15,000 to 22,000 deaths per year (source: February 1998 BEIR VI, National Academy of Sciences). Nearly one out of every 15 homes is estimated to have radon concentrations above EPA recommended action level.
- In schools, the General Accounting Office estimates that 9.9 million students and 570,000 teachers and school staff suffer illnesses annually due to poor indoor air quality.
- Young children are exposed to Environmental Tobacco Smoke (ETS) in approximately 27% of U.S. homes, increasing their risk for asthma and causing thousands of lung infections and other diseases.
- Many of the pollutants of concern in combating exposure to Urban Air Toxics are also found indoors, and are emitted by indoor sources such as consumer products and building materials.

### Indoor Environments Program Strategy

EPA has two major strategies to meet its human health objective for indoor air quality:

- EPA raises public awareness of actual and potential indoor air risks so that individuals can take steps to reduce exposure. These outreach activities provide essential information to the public and to professional and research communities about indoor air risks. Outreach takes

the form of educational literature, media campaigns, hotlines, and clearinghouse operations. Underpinning EPA's outreach efforts is a strong commitment to environmental justice, community based risk reduction, and customer service. For example, the media campaign undertaken in partnership with the Advertising Council seeks to educate people about asthma, and the role that environmental triggers found indoors can play in the worsening of the disease.

- EPA uses partnerships and technology transfer to improve the way in which all types of buildings, including schools, homes, workplaces, and other large buildings are designed, operated, and maintained to bring about healthier environments indoors. To support these voluntary approaches, EPA incorporates the most current science available as the basis for recommending reduction actions.

In order to encourage individuals, schools, and industry to take action to get risk reduction in their indoor environments, EPA must reach people at the local level. To do this, EPA uses assistance agreements and cooperative partnerships to collaborate with organizations such as the American Academy of Pediatrics, the Asthma and Allergy Foundation of America, the National Association of Counties, the National Association of County and City Health Officials, the National Education Association, the American Lung Association, the Consumer Federation of America Foundation, the National Environmental Health Association, and the National Council of La Raza. These partnerships position EPA to successfully reach and educate its target audience which includes physicians who treat children with asthma, school personnel who control the environments where children spend many hours each day, county and local environmental health officials, and susceptible minority and disadvantaged populations. Through this national partner network of over 30 organizations and about 900 local field affiliates, EPA leverages the personnel, expertise, and credibility of these groups to provide the tools to their target audiences and to the general public to make informed decisions about reducing risk in their indoor environment.

#### Indoor Environments: Children's Health Emphasis - Asthma and ETS

EPA is very concerned about the rise of asthma incidence in children which some say has reached epidemic proportions. The number of children with asthma has more than doubled in the past 15 years, with about 5.5 million children affected. Annually, there are 150,000 hospitalizations due to asthma. From 1977 to 1995, there was a three-fold increase in the number of deaths from asthma, and each year over 10 million school days are missed due to this disease. The cost of asthma to the U.S. economy was estimated to be \$6.2 billion in 1990 (NIH Publication No. 55-807, September 1996) and \$15 billion in 1996 (Research in Human Capital and Development 1998: 12:35-47).

In 2001, EPA will continue to implement the Administration's cross-Agency initiative to reduce childhood asthma caused by indoor air pollution. EPA is working, as part of the Administration's multi-agency asthma initiative, to ensure that indoor environmental management is an integral part of asthma care in the United States. There is no known cure for asthma at this time. The medical community is in agreement, and it is established in national guidelines, that both medical treatment and environmental management are needed to effectively control asthma.

However, indoor environmental management is often not practiced and often not part of the prescription for managing asthma. EPA is targeting two primary audiences to help address indoor asthma triggers nationwide -- the medical community and the general public.

First, the Agency is working to improve the medical community's awareness of and attention to indoor asthma triggers and their role in triggering asthma attacks in asthmatics. EPA is coordinating with HHS to convene a series of conferences with managed care organizations to discuss current asthma care practices and to encourage greater emphasis on avoidance of asthma triggers as part of a comprehensive asthma treatment regimen. Work accomplished in this area in FY 2000 will lead to a national summit of health care and managed care organizations in FY 2001 to share lessons learned about how to better integrate medical treatment and environmental management.

Second, EPA will continue, with the help of the Advertising Council, to raise the awareness of the general public about indoor asthma triggers. Particular attention will be paid to children with asthma and their care givers, and low income adults with asthma in a multi-tiered national media campaign. Support and direction will be provided to asthma groups that educate low-income residents about the environmental components of asthma in the home setting, and funding will continue to increase the introduction of school-based asthma education programs, such as the American Lung Association's "Open Airways," into hundreds of additional schools nationwide, with an emphasis on reaching inner city schools with minority populations. The program teaches students with asthma to identify and control their exposure to the asthma trigger in their environment, and helps staff, and teachers understand the steps they can take to improve their school's asthma management.

EPA will expand the implementation of the "Indoor Air Quality Tools for Schools" program to improve the environment inside schools in FY2001, to encompass several thousand additional schools. Adoption of these low-cost/no-cost guidelines for proper operation and maintenance of school facilities will result in a healthier indoor environment for all students and staff, but will be of particular help to children with asthma, lessening the degree to which they are exposed to indoor asthma triggers. On an on-going basis EPA will evaluate the training materials for these school-based projects to ensure that they effectively and efficiently address the environmental issues. In addition, EPA will maintain a uniform tracking system to document program progress.

EPA will collaborate with HHS, CDC, Americorps/Vista, and other community organizations to focus on in-home asthma education as a proven and practical method of helping children and their parents/guardians identify and reduce indoor environmental asthma triggers. The Agency will work with housing groups, home health educators, community groups, and building operators to design, conduct, improve, and track efforts which substantially reduce indoor environmental triggers for asthma in low-income housing.

EPA will also continue work to reduce asthma and other childhood disease by implementing programs designed to reduce the number of homes where young children are exposed to ETS. ETS is a key causal factor for many childhood respiratory problems including 150,000-300,000 cases of pneumonia and bronchitis each year in children under 18 months of age, as well as middle ear fluid



build-up in children. Asthmatic children are especially at risk since ETS exposure increases the number of episodes and severity of symptoms for up to 1,000,000 asthmatic children. Recent studies have suggested links between ETS, sudden infant death syndrome, and low birth weight. The Agency will continue its multi-media campaign on environmental tobacco smoke which targets the parents of young children, counseling them not to expose children to smoke inside the home. EPA will continue to work in collaboration with the CDC, states, and local organizations to develop and make available tools and resources which motivate parents and guardians to make their homes smoke-free. EPA will continue grant support to state and local tobacco control programs to help reduce the proportion of homes in which children are exposed to secondhand smoke.

### Indoor Environments: Homes, Schools, and Buildings Base Programs

EPA continues to work toward bottom line results for the Indoor Environment base programs including implementation of the IAQ “Tools for Schools” kit and the “Open Airways” program in elementary schools, office buildings managed with good Building Air Quality practices, home radon tests completed, home mitigation accomplished, and new homes built with radon-resistant features. EPA provides assistance to the public, other governmental agencies, and non-governmental organizations to help meet the program’s objective to reduce indoor environmental pollutants.

Through the State Indoor Radon Grant Program, EPA provides assistance to the states for the development and implementation of state programs to assess and mitigate radon, thereby enhancing the effectiveness of state and local activities for radon risk management. The grant program helps: 1) establish the basic elements of an effective Radon Program in states that have not yet done so and support innovation and expansion in states that currently have programs in place, and 2) strengthen the Federal/state partnership by helping states develop radon program elements and activities.

In FY 2001, States will be determining whether to implement multimedia mitigation plans under the Safe Drinking Water Act to address radon in indoor air. States electing to implement multimedia programs will be working with stakeholders to develop and submit their plans to EPA.

### **FY 2001 Change from FY 2000 Enacted**

#### EPM

- (+ \$1,300,000) Public Information Campaign: Expand the Indoor Environments multi-media campaigns specifically to educate the public, and especially parents of children with asthma, about ways to reduce and avoid childhood asthma episodes through educating parents and asthmatics about the indoor environmental triggers of asthma.

#### S&T

- (-\$1,899,900) Funding for the assessment and mitigation of the impacts of exposure to multiple indoor contaminants on human health through the Metropolitan Development

Association of Syracuse and Central New York, a Congressional earmark, will not be continued.

- (+\$1,400,000) Funding is required to support program laboratories in Las Vegas, Nevada and Montgomery, Alabama to enhance their abilities to study the effects of ETS and factors contributing to asthma.

## Annual Performance Goals and Performance Measures

### Healthier Residential Indoor Air

In 2001 890,000 additional people will be living in healthier residential indoor environments.

In 2000 890,000 additional people will be living in healthier residential indoor environments.

In 1999 End-of-Year results are expected in December 2000.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
People Living in Healthier Indoor Air	30-Dec-2000	890,000	890,000	People

Baseline: Performance Baseline: 1. By 2001, increase the number of people living in homes built with radon resistant features to 2,980,000 from 600,000 in 1994. (cumulative) 2. By 2001, decrease the number of children exposed to ETS from 19,500,000 in 1994 to 17,530,000. (cumulative) 3. By 2001, increase the number of people living in radon mitigated homes to 1,464,000 from 780,000 from 1994. (cumulative)

### Healthier Indoor Air in Schools

In 2001 2,580,000 students, faculty and staff will experience improved indoor air quality in their schools.

In 2000 2,580,000 students, faculty and staff will experience improved indoor air quality in their schools.

In 1999 1,050,000 students, faculty, and staff experienced improved indoor air quality in their schools.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
Students/Staff Experiencing Improved IAQ in Schools	1,050,000	2,580,000	2,580,000	Students/Staff

Baseline: Performance Baseline: The nation has approximately 110,000 schools with an average of 520 students, faculty and staff occupying them. The IAQ Tools for Schools Guidance implementation began in 1997, and the program's projection for 2001 is that an additional 5000 schools will implement the guidance. (additional, not cumulative since there is not an established baseline for good IAQ practices in schools)

## **Verification and Validation of Performance Measures**

### Performance Measure - People Living in Radon Resistant Homes

Performance Database: Survey

Data Source: National Association of Home Builders (NAHB) Surveys

QA/QC Procedures: N/A – Data is obtained from external organizations

Data Quality Review: N/A

Data Limitations: Susceptible to external factors that may make it difficult to rely on consistent collection and timely analysis of data.

New/Improved Data or Systems: None

### Performance Measure: People Living in Radon Mitigated Homes

Performance Database: External

Data Source: Data from radon industry

QA/QC Procedures: N/A – Data is obtained from external organizations

Data Quality Review: N/A

Data Limitations: Susceptible to external factors that may make it difficult to rely on consistent collection and timely analysis of data.

New/Improved Data or Systems: None

### Performance Measure: Children Under 6 not Exposed to Environmental Tobacco Smoke (ETS) in the Home

Performance Database: National Health Interview Survey

Data Source: Centers for Disease Control (CDC), NCHS

QA/QC Procedures: NA – Data is obtained from external organizations

Data Quality Review: N/A

Data Limitations: Susceptible to external factors that may make it difficult to rely on consistent collection and timely analysis of data.

New/Improved Data or Systems: None

Performance Measure: Students/Staff Experiencing Improved Indoor Air Quality (IAQ) in Schools

Performance Database: IAQ Tools for Schools Database and Tracking System

Data Source: EPA

QA/QC Procedures: Internal controls used during tracking system design and data collection.

Data Quality Review: N/A

Data Limitations: Database relies on voluntary self- reporting, mainly from school personnel. Data are not yet sufficient to translate number of schools with good practice to actual reduction in harmful exposure or health effects in schools.

New/Improved Data or Systems: Pilot project to examine relationship between IAQ practices and health effects in school buildings.

Performance Measure: People with asthma who have reduced exposure to indoor asthma triggers

Performance Database: National Health Interview Survey

Data Source: Centers for Disease Control (CDC), NCHS

QA/QC Procedures: N/A – Data is obtained from external organizations

Data Quality Review: N/A

Data Limitations: Susceptible to external factors that may make it difficult to rely on consistent collection and timely analysis of data.

New/Improved Data or Systems: None

### **Coordination with Other Agencies**

EPA serves a unique role in programs related to safety, consumer products and schools because of its experience and track record in raising public awareness of actual and potential indoor air risks, in addition to past work on indoor air quality issues associated with consumer products, and its expertise in the areas of indoor air quality in schools. EPA also plays a lead role in the President's Task Force for Environmental Asthma Issues.

EPA works with federal, state, and local government agencies, industry, non-profit organizations, individuals as well as other nations to promote more effective approaches to identifying and solving indoor air quality problems. EPA works with: the Department of Health and Human Services to develop and conduct programs aimed at reducing children's exposure to known indoor triggers of asthma, including environmental tobacco smoke; the Department of Housing and Urban Development on home safety issues especially those affecting children; the Consumer Product Safety Commission (CPSC) to identify and mitigate the health hazards of consumer products designed for indoor use; the Department of Education to encourage construction of schools with good indoor air quality; and the Department of Agriculture (USDA) to encourage USDA Extension Agents to conduct local projects designed to reduce risks from indoor air quality.

As co-chair of the inter-agency Committee on Indoor Air Quality (CIAQ), EPA works with the CPSC, the Department of Energy, the National Institute for Occupational Safety and Health and the Occupational Safety and Health Administration to review EPA draft publications, arrange the distribution of EPA publications and coordinate the efforts of Federal agencies with those of state and local agencies concerned with indoor air issues.

### **Statutory Authorities**

Radon Gas and Indoor Air Quality Research Act of Title IV of the Superfund Amendments and Reauthorization Act (SARA) of 1986

Toxic Substances Control Act (TSCA) section 6 and TSCA Titles II and III (15 U.S.C. 2605 and 2641-2671)

Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)

Clean Air Act (CAA)

Safe Drinking Water Act (SDWA)

## Environmental Protection Agency

### FY 2001 Annual Performance Plan and Congressional Justification

#### Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

#### Objective # 5: Improve Pollution Prevention Strategies, Tools, Approaches

By 2005, reduce by 25% (from 1992 level) the quantity of toxic pollutants released, disposed of, treated, or combusted for energy recovery. Half of this reduction will be achieved through pollution prevention practices.

#### Resource Summary (Dollars in thousands)

	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request	FY 2001 Req. v. FY 2000 Ena.
<b>Improve Pollution Prevention Strategies, Tools, Approaches</b>	<b>\$22,346.6</b>	<b>\$23,649.5</b>	<b>\$24,505.5</b>	<b>\$856.0</b>
Environmental Program & Management	\$16,347.1	\$17,650.0	\$18,506.0	\$856.0
State and Tribal Assistance Grants	\$5,999.5	\$5,999.5	\$5,999.5	\$0.0
Total Workyears	87.1	93.2	89.2	(4.0)

#### Key Programs (Dollars in thousands)

	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request
Design for the Environment	\$4,724.9	\$4,741.9	\$4,946.9
Pollution Prevention Program	\$9,449.5	\$8,333.2	\$8,534.4
Pollution Prevention Incentive Grants to States	\$5,999.5	\$5,999.5	\$5,999.5
Common Sense Initiative	\$484.6	\$0.0	\$0.0
Administrative Services	\$0.0	\$31.8	\$33.2
Regional Management	0	\$7.1	\$7.9

## **FY 2001 Request**

Pollution prevention (P2) is designed to prevent contaminants from entering the environment, in contrast to risk management and remediation, which are designed to control pollutants that have already been introduced. Under the Pollution Prevention Act of 1990, it is the policy of the United States “that pollution should be prevented or reduced at the source whenever feasible,” as the preferred approach to environmental protection. Compared to approaches that controlled, treated, or cleaned up pollution, P2 can often be more effective in reducing health and environmental risks to the extent that it:

- ▶ reduces releases to the environment;
- ▶ reduces the need to manage pollutants;
- ▶ avoids shifting pollutants from one media (air, water, land) to another; and
- ▶ protects natural resources for future generations by cutting waste and conserving materials.

Preventing pollution can be cost-effective to industry in cases where it reduces excess raw materials and energy use. P2 can also reduce the need for expensive “end-of-pipe” treatment and disposal, enable firms to avoid potential liability, and support quality improvement incentives in place at facilities. Current EPA strategies include institutionalizing preventive approaches in EPA’s regulatory, operating, and compliance/enforcement programs and facilitating the adoption of pollution prevention techniques by states, tribes, the academic community and industry. EPA uses market incentives, environmental management tools and new technologies to promote wider adoption of P2 measures.

Much progress has been made in carrying out these strategies, though more work remains. Perhaps the fastest growing opportunities lie in private sector partnerships, which enable EPA’s knowledge of P2 principles and techniques to be combined with industry-specific expertise in production and process design. Another opportunity for building P2 practices into industrial operations lies in partnerships with the academic community. By developing and providing educational tools for universities to train the next generation of engineers, we plant the seeds needed to sustain P2 practices throughout industry.

### FY 2001 Key Program Activities

In FY 2001, EPA will work to achieve the pollution prevention objective by pursuing a coordinated set of initiatives, tailoring programs and projects to the concerns and interests for each arena. Every type of organization and each individual consumer has a part to play in preventing pollution. P2 approaches can be flexibly applied to almost any endeavor. The Agency will promote effective pollution prevention through the following programs and activities:

#### **G** Pollution Prevention Incentive Grants to States

The States are the primary sources for businesses and communities that are seeking assistance in identifying and applying prevention approaches. EPA has provided seed money to help states in promoting innovation and developing state capacity. By the close of FY 2001, EPA will

have completed cooperative projects with five states to demonstrate the feasibility and benefits of integrating P2 into state environmental programs. Another key program for states, the Pollution Prevention Incentives for States (PPIS) program, fosters the development of new P2 approaches by providing grants to states in the areas of technical assistance and training, education and outreach, regulatory integration, demonstration projects, legislative activities and awards programs.

## **G** Pollution Prevention Program

*(a) Pollution Prevention as Guiding Principle.* The Environmental Justice P2 Program administers grants to low income, minority and federally recognized tribal communities to develop innovative P2 projects and capacity building approaches to address environmental concerns. The program was established as a response to the 1992 report, "Environmental Equity: Reducing Risk for All Communities," which found that low income, minority and tribal communities experience a higher incidence of environmental problems than does the general population. The program addresses toxics-related and other environmental concerns across all environmental media.

*(b) Sustainable Business Practices.* Businesses can often reduce costs significantly by implementing effective P2 programs. Sometimes the savings are not readily apparent because of the structure of the company's internal accounting system. The Agency will play a strong role in promoting business adoption of voluntary Environmental Management Systems (such as ISO 14000) and in encouraging businesses to modify their management accounting systems to fully and explicitly account for environmental costs. These strategies will improve the current business management framework in ways that will enable companies to more easily choose prevention practices.

*(c) Government Actions.* EPA has the lead in carrying out Executive Order 13101 and its predecessor, Executive Order 12873, section 503. These orders require the Federal government to use its purchasing power - about \$200 billion in goods and services each year - to create a demand for products and services that have a reduced impact on the environment (i.e., environmentally preferable products, or EPPs). The Agency finalized guidance in 1999 to help executive agencies identify and purchase environmentally preferable products and services. In FY 2001, EPA will expand an ongoing demonstration project to additional national standard setting organizations such as The American Society for Test Materials (ASTM) and Underwriters' Lab (UL). The demonstration project will help to extend government experience with environmentally preferable products to the private sector.

The Agency's pollution prevention specialists will continue to provide expert information and assistance to EPA media offices (e.g., air, water) in building pollution prevention into regulatory approaches. In FY 2000, EPA will incorporate P2 approaches into the Industrial Combustion Coordinated Rule and the Surface Coatings rule under the National Emissions Standards for Hazardous Air Pollutants (NESHAP). The experience gained from these rulemakings will facilitate the development in FY 2001 of a P2 module for EPA's *Planning your Regulation Workshop*.

*(d) Safer Products.* EPA is moving forward with efforts to provide information consumers can use to make environmentally friendly choices, through the use of Environmentally Preferable



Products (EPP). The Consumer Labeling Initiative is designed to improve household product labels to better present environmental, safe use, health, and other information. Proper labeling is especially important for products that are used by or around children, so that parents can prevent unnecessary risks to children from possible exposure to toxic chemicals.

*(e) PBT Initiative.* The Agency is concerned about persistent, bioaccumulative and toxic (PBT) substances, such as mercury, dioxin, and DDT, because these pollutants can cause developmental and neurological defects in fetuses and young children. Many PBTs are also suspected endocrine disruptors. To address continuing issues associated with PBTs, EPA launched a cross-office, cross-media PBT initiative in FY 1999. Through this effort, the Agency seeks to prevent, minimize and, when possible, eliminate PBTs which are harmful to both human health and the environment. The initiative's cross-media approach is designed to stop the transfer of PBT pollutants across media using all of EPA's tools: regulatory, compliance assistance, enforcement, research, voluntary actions, prevention, and international negotiations. The PBT Initiative fosters cross-agency collaboration on activities related to priority PBTs by building on actions by individual national program offices and regions, and by providing resources for priority PBT activities that further this agency-wide effort.

By the beginning of FY 2001, the Agency-wide PBT Strategy will be established, specific National Action Plans for priority PBTs will be completed, and full-scale implementation of those plans, particularly for mercury, will be underway. The second set of priority pollutants will also be selected for the development of agency-wide National Action Plans. Critical measurement and monitoring efforts will be in their second year, facilities will be collecting PBT chemical release data under the new TRI rule, and submissions under TSCA for approval of new PBT chemicals for entry into commerce will be under close scrutiny. New activities for FY 2001 are to include:

- Implementation of Sector-based Action Plans
- Increased focus on regional/state implementation projects
- Major emphasis on dioxin
- The fruition of measuring, monitoring and data collection

## **G** Design for the Environment

One of the Agency's key P2 industry sector-based programs focuses on fostering cleaner technologies and the reduction of risks to health and the environment through the adoption of safer chemicals and workplace practices. EPA's Design for the Environment (DfE) Program works in partnership with industry to develop comparative risk, performance, and cost information about alternative technologies, chemicals, and processes; in order to make environmentally informed decisions. Through this program, EPA has entered into partnerships with more than 15 industries, including printing and graphics; textile and garment care; electronics and computers; automotive manufacturing, repair, and refinishing; industrial and institutional laundries; foam furniture manufacturing; paints and coatings; and others. In 2001, EPA will begin a new DfE project with formulators in the garment and textile industry (i.e., textile finishes and dyes).

DfE partnership projects support the reduction of risks to health and the environment through the development of a better understanding of workplace and environmental hazards, through identifying incentives to encourage the adoption of safer workplace practices, and through providing technical support towards the re-design of safer chemicals, mixtures, formulas, products, and technologies. In particular, DfE partnerships have already begun to see changes in either the use of chemicals or workplace practices in industrial and institutional laundry product formulations, dry-cleaning and garment care, and in the electronics industry. DfE's partnerships in the flexographic ink and foam furniture product industries are wrapping-up the technical aspects of these partnerships and launching outreach activities within FY 2000/2001.

DfE has completed comparative assessments on over 500 chemicals and continues to evaluate several hundred additional chemicals each year. The switch to alternative cleaner, safer chemistries and/or the adoption of P2 practices in the workplace results in the reduction of the use of hazardous chemicals. These use reductions will translate into lower quantities of hazardous chemicals released, disposed of, treated, or combusted for energy recovery; contributing to the overall objective of achieving a 20 % reduction in such quantities.

EPA is developing programs to incorporate pollution prevention strategies into academic training. The Design for the Environment (DfE) Program has worked with a network of community colleges to help these institutions build P2 principles into their curricula. Through the development of curricula and training materials, students are provided a framework of understanding of environmental issues to make environmentally sound decisions in their professional capacities.

The current focus of the Green Engineering Program is also on education. Green Engineering looks to educate engineering students to build P2 principles into the design and operation of industrial processes. To this end, EPA is publishing a Green Engineering textbook and other educational materials. Engineering departments are awaiting the completion of Green Engineering products to help support their reaccreditation efforts. The Accreditation Board of Engineering and Technology (ABET) has established new environmental criteria, which engineering departments need to meet by 2001.

In 2001, the Buy Clean initiative will apply the principles of the EPP program to indoor environmental quality, with an emphasis on its potential for reducing risk to schoolchildren from exposure to indoor air pollutants. Concentrations of environmental chemicals can be anywhere from several to thousands of times higher indoors than outside, and many indoor air pollutants are known to trigger asthma episodes in children. The initiative will begin with a focus on products used in schools, placing priority on any products containing chemicals that could contribute to respiratory irritation, asthma or other health effects of concern. EPA will develop procurement guidelines for schools and create market incentives for manufacturers to make products that lead to improved indoor environmental quality. EPA will work with one school district to develop criteria/tools for the purchase of environmentally preferable products that will lead to an improvement in the indoor environmental quality of schools and in student health and performance.

The pollution prevention approaches discussed above are aimed at providing assistance and incentives to various sectors of society to promote new habits and new ways of doing business that are sustainable, cost-effective and beneficial to the environment. These activities promote greater ecological efficiency and therefore help to reduce the generation and release of production-related waste.

### **FY 2001 Change from FY 2000 Enacted**

#### **EPM**

- (-\$315,860; -3.4 FTE) Reflects the disinvestment required to meet the reduced Agency FTE ceiling, reducing assistance provided to industry in implementing environmental management systems required for ISO14000 certification.
- (-\$181,600) Increase for workforce cost of living.
- (+\$2,000,000) Reflects an increase in support for projects, designed and run by communities, tribes and other local organizations, under the Environmental Justice Pollution Prevention program. Projects target local P2 solutions to environmental problems, providing seed monies and capacity building for disadvantaged communities.
- (+\$200,000) Reflects an increase in support the Design for the Environment program, enabling this highly praised program to initiate a new industry sector partnership for developing clean products and production processes.
- (+\$515,600) Reflects an increase in support for the Persistent Bioaccumulative Toxics (PBT's) Initiative, enabling the development of national action plans on an additional set of priority PBT chemicals.
- (+\$282,000) Reflects an increase in support for publicizing the economic benefits of reducing waste at the source.
- (-\$2,150,000) Reflects completion of funding for four Congressionally-mandated projects.

## Annual Performance Goals and Performance Measures

### Toxic Release Inventory (TRI) Pollutants Released

- In 2001 The quantity of Toxic Release Inventory (TRI) pollutants released, disposed of, treated or combusted for energy recovery, (normalized for changes in industrial production) will be reduced by 200 millions pounds, or 2%, from 2000 reporting levels.
- In 2000 The quantity of Toxic Release Inventory (TRI) pollutants released, disposed of, treated or combusted for energy recovery, (normalized for changes in industrial production) will be reduced by 200 millions pounds, or 2%, from 1999 reporting levels.
- In 1999 Total releases of toxic chemicals decreased by 38.8million pounds from 1995 thru 1997. The 1997 TRI data, however, reflect a continued increase in production related wastes. This increase is accompanied by a continued increase in the use of pollution prevention practices by industry.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
Reduction of TRI pollutants released	1.1 Billion lbs. increase	200 Million	200 Million	lbs.
Baseline:	Estimated 1999 reporting of 10 billion pounds released.			

### Managing PBT Chemicals

- In 2001 Initiate further actions pursuant to PBT Strategy and Level I PBT National Action Plans including a plan to address unique environmental health threats to Tribes and special populations.
- In 2000 Integrate second group of 6-10 PBT chemicals into National Action Plans for PBT chemicals
- In 1999 EPA published a draft agency-wide PBT Strategy and draft Mercury Action Plan. EPA initiated ten new projects with primary focus on reducing mercury use and emissions. EPA also completed seven draft national action plans, which address 11 of the remaining priority PBTs.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
Initiate risk reduction actions in accordance with National Action Plan	11			Chemicals
Integrate level II chemicals into National Action Plans.		6-10		Chemicals
Number of prevention and reduction projects		10	10	Actions
Publish final list of additional priority PBTs.			1	List
Baseline:	Baseline is 15 high priority actions initiated pursuant to PBT Strategy and National Action Plan.			

**Improvement of Indoor Environmental Quality in Schools**

In 2001 Work with one school district to develop criteria/tools for procurement of products that will improve indoor environmental quality; identify two high priority product categories and set health-based product criteria for use in one pilot school district.

In 2000 Work with one school district to develop criteria/tools for procurement of products that will improve indoor environmental quality; identify two high priority product categories and set health-based product criteria for use in one pilot school district.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
Agreement reached with school district on purchasing criteria for two product categories.		1	2	Agreements

Baseline: Improved indoor environmental quality in schools. (Baseline to be determined as part of this project)

**Safer Alternative Cleaning Technologies**

In 2001 From the 1998 baseline, expand P2 practices in the garment and textile care industries by achieving a 35% increase in the use of safer alternative cleaning technologies.

In 2000 From the 1998 baseline, expand P2 practices in the garment and textile care industries by achieving a 25% increase in the use of safer alternative cleaning technologies.

In 1999 Overall, the DfE program has formed partnerships with industry to reduce million of pounds of hazardous chemicals, reduce worker exposure, increase awareness of safer practices, and develop environmentally preferred products. Dry cleaners reduced perc use by 11 million pounds in 1998.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
Percentage increase in the use of alternative cleaning technologies by garment care industry.	10%	25%	35%	Use-cumulative

Baseline: In 1997, 83 million pounds perchloroethylene used; 1998 figure not yet available. Safer cleaning technologies replace use of perchloroethylene.

**Cleaner Products/Technologies**

In 2001 Achieve a 5% increase in use of cleaner flexographic ink technologies and cleaner (water-or non-solvent-based) adhesives or bonding techniques in foam furniture products.

In 2000 Achieve a 5% increase in use of cleaner flexographic ink technologies and cleaner (water-or non-solvent-based) adhesives or bonding techniques in foam furniture products.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
For inks, track size of flexographic ink industry and market share (\$ and lbs) of cleaner inks. Baseline 1998.		5%	10% (cum)	Use
For adhesives, track size of cleaner adhesive industry market share.			5% Increase	Market Share
For eco-friendly detergents, track the number of laundry detergent formulator industry partners.			8	Partners
Baseline: Baseline usage under development.				

**Pollution Prevention Outreach Efforts**

- In 2001 Broaden outreach efforts on P2 methods to colleges, universities and tribal schools, sponsoring college training network and modifying curricula to better reflect tribal values
- In 2000 Broaden outreach efforts on P2 methods to community colleges and tribal schools, sponsoring community college training network and modifying curricula to better reflect tribal values

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
Number of P2/DfE curricula (comm. coll. and tribal) instructor workshops and training modules developed		14	22	Ed. Tools
Adoption of Green curriculum by chemical engineering departments.			25	Departments
Baseline: Baseline is number of workshops and curricula developed from start of project in 2000 and 16 chemical engineering departments attended workshops in 1999.				

**Verification and Validation of Performance Measures**

**Performance Measure: Reduction of TRI pollutants released**

**Performance Database:** TRIM: Toxic Release Inventory Modernization, formerly TRIS (Toxic Release Inventory System) - contains information on source reduction measures employed by reporting facilities

**Data Source:** Facilities reporting under TRI. For example, in FY 1997, 21,490 facilities filed 71,670 TRI reports.

**QA/QC Procedures:** Automated edits and error checks during data preparation by industry respondents; automated edits, error checks, data scrubs, corrections and normalization by EPA during data entry

**Data Quality Review:** GAO Report: Toxic Substances: EPA Needs More Reliable Source Reduction Data and Progress Measures (09/23/94, GAO/ RCED-94-93). Report reviewed EPA's progress to implement source reduction reporting requirements; results of voluntary program to reduce emissions of 17 highly toxic chemicals; and activities to disseminate source reduction information to meet state and industry needs.

**Data Limitations:** Program activities that implement requirements of PPA affect many other sources of pollution besides TRI releasers. PPA section 6604(b) is a partial enumeration of EPA activities under the PPA. TRI releasers are identified by regulation and are a narrower category of facilities. TRI release data covers only a fraction of the total releases.

**New/Improved Data or Systems:** EPA is developing regulations for improving reporting of source reduction activities by TRI reporting facilities.

### **Coordination with Other Agencies**

This objective spans a broad range of pollution prevention activities, which will yield reductions in waste generation in both the public and private sectors. For example, the Environmentally Preferable Product initiative, which implements Executive Orders 12873 and 13101, is promoting the use of cleaner products by federal agencies, which can stimulate demand for the development of such products by industry.

This effort includes a number of demonstration projects with other federal departments/agencies, such as the General Services Administration (use of safer products for indoor painting and cleaning), Department of Defense (use of safer paving materials for parking lots), and Defense Logistics Agency (safer solvents). The program also works with the National Institute of Standards and Technology, the International Standards Organization, and other groups to develop standards for Environmental Management Systems.

### **Statutory Authorities**

Toxic Substances Control Act (TSCA) sections 4 and 6 and TSCA Titles II, III, and IV (15 U.S.C. 2605 and 2641-2692)

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) sections 3, 4, 5, 6, 11, 18, 24, and 25 (7 U.S.C. 136a, 136a-1, 136c, 136d, 136i, 136p, 136v, and 136w)

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

Clean Air Act (CAA) section 309 (42 U.S.C. 7609)

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

Emergency Planning and Community Right-to-Know Act (EPCRA) (42 U.S.C. 11001-11050)

Resource Conservation and Recovery Act (RCRA) (42 U.S.C. 6901-6992k)



## Environmental Protection Agency

### FY 2001 Annual Performance Plan and Congressional Justification

#### Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

#### Objective # 6: Decrease Quantity and Toxicity of Waste

By 2005, EPA and its partners will increase recycling and decrease the quantity and toxicity of waste generated.

#### Resource Summary (Dollars in thousands)

	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request	FY 2001 Req. v. FY 2000 Ena.
<b>Decrease Quantity and Toxicity of Waste</b>	<b>\$17,561.2</b>	<b>\$15,056.6</b>	<b>\$16,016.60</b>	<b>\$960.0</b>
Environmental Program & Management	\$14,488.2	\$11,983.60	\$12,943.60	\$960.0
State and Tribal Assistance Grants	\$3,073.00	\$3,073.00	\$3,073.00	\$0.0
Total Workyears	120.6	105.5	107.3	1.8

#### Key Programs (Dollars in thousands)

	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request
RCRA State Grants		\$3,073.0	\$3,073.0
Waste Minimization		\$2,413.2	\$1,913.3
Source Reduction		\$2,299.0	\$1,950.9
Recycling		\$4,232.9	\$3,639.3
Common Sense Initiative		\$634.5	\$379.5
Administrative Services		0	\$26.7

## **FY 2001 Request**

Pollution prevention and safe recycling are two of the nation's best tools for environmental protection. Well implemented, systematic source reduction and recycling programs solve waste management problems at their source, lowering pressure on the environment at a number of critical points: production of raw materials; subsequent processing into finished products; and, eventual transport and disposal at a waste management facility. At the same time, the best programs save industry and municipalities money.

The Resource Conservation and Recovery Act (RCRA) calls for EPA to exercise national leadership in promoting a reduction in the amount of waste generated, and improved recovery and conservation of materials through recycling. The RCRA program emphasizes a national policy that focuses on a hierarchy of preference for waste management options - reduce, reuse or recycle - that cut the need for eventual storage, treatment or disposal. In the 1990 Pollution Prevention Act, Congress essentially codified this 'decision tree' for waste management, reaffirming the need for strong source reduction and recycling programs for both hazardous and municipal solid wastes.

The activities in this objective encompass the Agency's work to reduce toxic chemicals in industrial hazardous waste streams, reduce the generation of municipal, hazardous and other solid waste, and recycle hazardous and municipal solid waste. Reducing toxic chemicals in industrial waste streams will result in more efficient use of natural resources, and decrease human exposure to toxic wastes. Source reduction and recycling of municipal solid waste will divert waste from landfills and combustors, reduce water and air pollution by conserving natural resources, and reduce generation of global warming gases --while also conserving energy.

In the hazardous waste arena, the Agency will further develop waste minimization partnerships with industry. In line with the national and international priority on reducing the presence of persistent, bioaccumulative and toxic chemicals (PBTs) in the environment, the RCRA program is implementing a strategy to focus reduction efforts on waste streams of most concern by first identifying them, then working with industry and communities to find ways to reduce them. Reducing the most hazardous chemicals will eliminate some of the risk that occurs when waste is released into the environment through accident, mismanagement or residual emissions.

A draft RCRA Waste Minimization PBT Chemical List was issued in November 1998 ranking chemicals according to four factors: (1) a combined ability for chemicals to be persistent, to accumulate in human and animal tissues (bio-accumulate) and result in toxic effects in humans (e.g., cancer) or pose other ecological problems; (2) quantities of chemical present in hazardous waste and frequency of occurrence; (3) documented presence of chemical in the environment, and (4) whether these chemicals are of RCRA concern (e.g., hard to treat, hard to remediate, etc.). The Agency received public comments on the draft list, as well as the factors used to develop it. In 2000, EPA will finalize the factors and the list as part of the larger PBT Initiative (PBTI).

In 2001, waste minimization efforts will maintain a two-pronged approach addressing partnerships and technical guidance/outreach to industry. The Agency is in a multi-year partnership with the New England states to reduce the generation of industrial municipal waste containing

mercury by working with companies and sectors that produce appliances and instruments containing mercury. The goal of this partnership is to encourage broader use of low/no mercury technologies in a variety of industrial sectors. In 2001, the Agency also plans to publish the first national PBT reduction progress report based on Toxics Release Inventory (TRI) and Biennial Reporting System (BRS). Analysis of quality assured data in 2000 is essential to publishing a report that measures progress of industry sectors toward the national GPRA reduction goal. EPA will make available technical documentation of PBT reduction successes to industries and other stakeholders via the Internet.

In 2001, the Agency will review existing information on hazardous waste recycling with a goal of developing actions to increase recycling rates in areas where current recycling rates are low or declining.

The Agency plans to reduce burdens on small businesses and encourage hazardous waste recycling through RCRA program improvements. These re-invention efforts will streamline RCRA requirements for the printing, electronics, and metal finishing industries. In 2001, the Agency will begin work to finalize rules proposed in 2000 which streamline regulations for solvent-bearing industrial wipes and towels, and for the recycling of lead-containing cathode ray tubes found in many electronic products. In 2000, the Agency will complete a final rule allowing longer storage periods for metal finishing wastes that is expected to encourage greater recycling of these wastes by small plating businesses. As a follow-on effort, the Agency will discuss with the metal finishing industry and key stakeholders other potential regulatory and non-regulatory initiatives to increase recycling and safe management of metal finishing wastes.

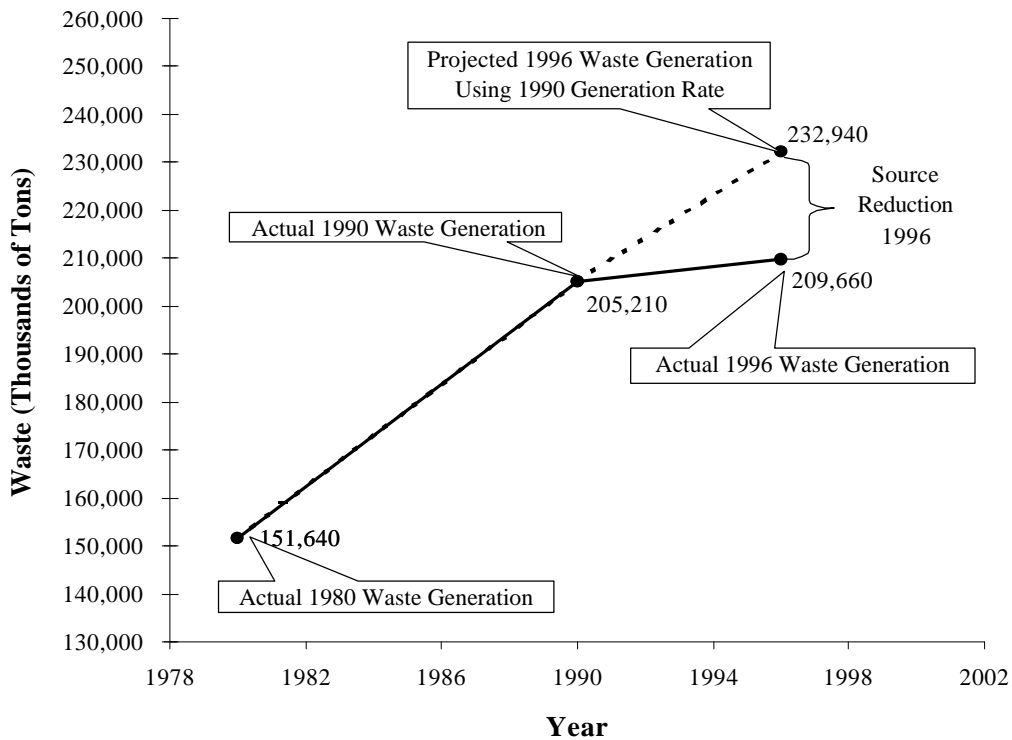
In 2001, the Agency will examine potential RCRA improvements in site-specific projects initiated under the Project XL program, which encourages experimentation with alternative regulatory requirements that may yield superior environmental results. Currently, there are 11 XL Projects with RCRA components. Several are examining alternative regulatory approaches that should result in increased recycling of hazardous wastes, while maintaining appropriate environmental protections.

Reducing the amount and toxicity of hazardous waste has clear benefits, yet only a small portion of the nation's total volume of waste is affected. Annual generation of municipal solid waste (MSW) has grown steadily from 88 million to 217 million tons between 1960 and 1997. The RCRA municipal solid waste program provides national leadership, technical assistance and outreach for businesses, industry, and municipalities implementing source reduction and recycling systems in their plants, facilities and communities, as well as for states and tribes whose laws provide the structure for these activities. Municipal solid waste includes waste generated from residences, commercial establishments, institutions, and industrial non-process operations. The program implements a coordinated mix of strategies to manage wastes, including source reduction (also called waste prevention), recycling (including composting), combustion, and landfilling. Preference is given to strategies that maximize the diversion of waste from disposal facilities, with source reduction (including reuse) as the highest priority followed by recycling.

## Calculating Source Reduction for MSW Using Personal Consumption Expenditures (PCE) as the Driving Factor

With the selection of consumer spending as the driving factor, the chart below uses actual data from the *1997 Update* on MSW generation and data on consumer spending. This figure includes these data and illustrates the 23 million tons of source reduction achieved in 1996 relative to 1990.

### Calculation of Source Reduction in 1996



The Table below explains the previous figure in more detail, including the main steps involved in calculating source reduction in 1996.

**Calculation of Source Reduction in 1996**

<b>Source Reduction Equation Components</b>	<b>1990</b>	<b>1996</b>
<b>1. Waste Stream:</b> Actual Waste Generation (Thousands of Tons)	205,210	209,660
<b>2. Driving Factor:</b> Consumer Spending (Millions of Dollars)	4,132,000	4,690,700
<b>3. Rate:</b> Waste Generation Rate (Tons per Million Dollars)	49.66	44.70
<b>4. Projected 1996 Waste Generation Using 1990 Generation Rate</b> (Thousands of Tons)	Not Applicable	232,940
<b>5. Source Reduction in 1996</b> (Thousand of Tons)	<b>Not Applicable</b>	<b>23,280</b>

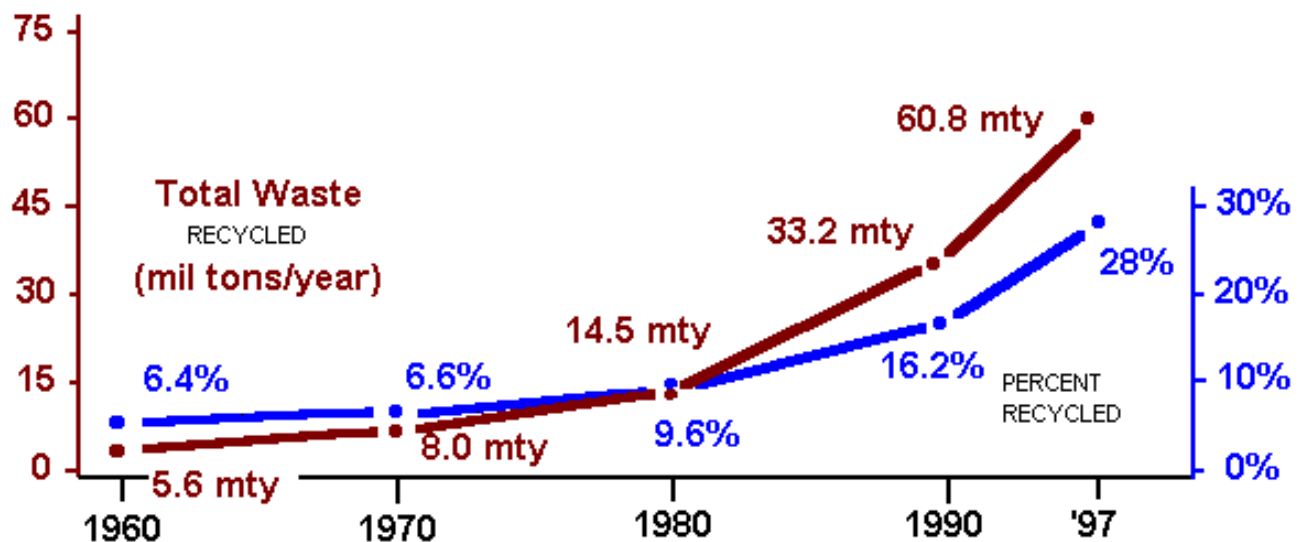
In 2001, the RCRA recycling and source reduction projects will continue to create markets for recyclable materials collected from the waste stream to be used in the production of new products. The Agency will focus efforts on financing and technology opportunities for recycling/reuse businesses. EPA will continue to promote waste prevention efforts by sharing its new source reduction measurement methodology to allow the tracking of progress when a source reduction program is initiated at the local, state, or national level and by emphasizing the use of unit based pricing of solid waste services, the Pay as You Throw approach to financing solid waste management.

The Agency will promote the economic, environmental (including climate change), and social benefits of natural resource conservation achieved through source reduction and recycling. The Agency will be providing technical assistance to local government officials on ways to improve the efficiency and cost-effectiveness of recycling collection programs by calling attention to the techniques used by some 20 record-setting community recycling programs. The Agency will share technical information on cost effective waste reduction programs through satellite-broadcast workshops, training, and outreach materials that can be used by local communities and other partners in developing effective systems for containing costs while maintaining or improving environmental protection. In 2001, the WasteWise program will be in the second year of a campaign to seek federal sector partners to promote source reduction, recycling and buy-recycled programs within federal agencies. EPA hopes to have dozens of additional partners resulting from federal sector expansion. Partners joining the WasteWise program set and achieve goals in three areas: preventing waste, collecting recyclables, and increasing the purchase or manufacture of recycled projects. In the program's fifth year, WasteWise partners reduced over 7.7 million tons.

As a result of the successful implementation of our direct hands-on effort to promote the implementation of Pay as You Throw programs, in 2001 efforts will rely on providing technical assistance to local governments through less costly electronic means.

The Jobs Through Recycling (JTR) program has been successful in stimulating markets for recycled materials through creation of new recycling and reuse business. Examples of efforts taken to foster the recycling market include information dissemination and exchange, and networking. In 2001, the Agency will continue to promote financing and technology opportunities for recycling/reuse businesses through its JTR network. EPA will substantially reduce direct assistance grants to support buy-recycled programs because strong, self-sustaining programs geared to industry, business, and state and local governments have been established. Rather, the Agency will focus on increasing source reduction and recycling of targeted portions of the solid waste streams and work with partners to identify, analyze and share information. The Agency will emphasize

## WASTE RECYCLING RATES - 1960 TO 1997



Characterization of MSW in the US: 1998 Update, US EPA, Washington, DC

waste reduction opportunities for construction and demolition debris, food wastes, tires, electronics equipment, carpet, transport packaging, and plastic beverage packaging.

The Comprehensive Procurement Guidelines program establishes guidelines for federal and state purchasing to help improve the market for products made from materials recovered from the solid waste stream. These guidelines, along with the Recovered Materials Advisory Notices, set minimum recovered materials content for certain designated items. EPA will continue to develop new Comprehensive Procurement Guidelines and will issue new guidelines biannually as required in Executive Order 13101.

**FY 2001 Change from FY 2000 Enacted**

**EPM**

- (+\$513,000) Increased costs associated with the workforce based on the Agency’s overall payroll pricing.
- (+\$140,000) Increase in the Municipal Solid Waste (MSW) program will provide funds for developing the MSW characterization report and promote financing and technology opportunities for recycling/reuse businesses through the Jobs Through Recycling Program.

**Annual Performance Goals and Performance Measures**

**Reducing PBTs in Hazardous Waste Streams**

In 2001 Reduce persistent, bioaccumulative and toxic chemicals in hazardous waste streams by expanding the use of State and industry partnerships and Regional pilots.

In 2000 Issue final list on RCRA persistent, bio-accumulative and toxic (PBT) chemicals.

In 1999 The schedule for finalizing the PBT List was delayed due to changes in the scope of effort. Based on public comments, EPA decided to expand the list to include other multi-media data. The schedule has been extended to include peer review of underlying data. EPA anticipates final publication in 2/00.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
Issue final guidance on PBT Identification	0			document
Issue final PBT list.		1		list
Prepare a trends report that shows Toxic Release Inventory changes from 1991 to 2000.			1	report
Baseline:	1991 Toxic Release Inventory data will be used to determine reductions.			

**Municipal Solid Waste Source Reduction**

In 2001 Divert an additional 1% (for a cumulative total of 30% or 67 million tons) of municipal solid waste from land filling and combustion, and maintain per capita generation of RCRA municipal solid waste at 4.3 pounds per day.

In 2000 Divert an additional 1% (for a cumulative total of 29% or 64 million tons) of municipal solid waste from land filling and combustion, and maintain per capita generation of RCRA municipal solid waste at 4.3 pounds per day.

In 1999 Data Unavailable

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request	
Millions of tons of municipal solid waste diverted.	not available	64	67	million tons
Daily per capita generation of municipal solid waste.	not available	4.3	4.3	lbs. MSW
Baseline:	1990 levels established at 17% of MSW diverted and 4.3 pounds MSW per capita daily generation.			

**Verification and Validation of Performance Measures**

**Goal 4 Objective 6**

**Performance Measure: Millions of tons of municipal solid waste diverted; Daily per capita generation of municipal solid waste**

**Performance Database:** In the non-hazardous waste program, no national databases are in place or planned.

**Data Source:** The baseline numbers for municipal solid waste source reduction and recycling are developed using a materials flow methodology employing data largely from the Department of Commerce which can be found in an EPA report titled “Characterization of Municipal Solid Waste in the United States.”

**QA/QC Procedures:** Quality assurance and quality control are provided by the Department of Commerce’s internal procedures and systems. The report prepared by the Agency is then reviewed by a number of experts for accuracy and soundness.

**Data Quality Review:** The report, including the baseline numbers and current progress, is widely accepted among experts. Since the report is produced by EPA, no reporting from outside sources will be required.



**Data Limitations:** Non-hazardous waste data limitations stem from the fact that the baseline and annual progress numbers are based on a series of models, assumptions, and extrapolations and, as such, are not an empirical accounting of municipal solid waste generated or recycled.

**New/Improved Data or Systems:** Since these numbers are widely reported and accepted by experts, no new efforts to improve the data or the methodology have been identified or are necessary.

### **Coordination with Other Agencies**

In addition to business, industry and other non-governmental organizations, EPA will work with federal, state, tribal, and local governments to encourage reduced generation of waste as well as the safe recycling of wastes. Frequently, successful projects require multiple partners to address the multi-media nature of effective source reduction and recycling programs. The Agency's re-invention efforts have brought a range of stakeholders together to examine alternatives in specific industrial sectors, and several regulatory changes have followed which encourage hazardous waste recycling.

As federal partners, EPA and the U.S. Postal Service (USPS) work together on several municipal solid waste projects. For instance, rather than dispose of returned/unwanted mail, EPA and the USPS developed and implemented successful recycling procedures and markets, including the return of unwanted mail (advertisements, catalogues, etc.) to the Post Office for recycling rather than disposal by the recipient. EPA also works with the Small Business Administration to provide developmental and continued support to recycling businesses.

EPA has worked with the Council on Environmental Quality (CEQ) and the Federal Environmental Executive (FEE) on the White House Initiative on Recycling, involving business, industry, non-government organizations and all levels of government. EPA is teaming with numerous other federal agencies to respond to the Initiative's goal of reinvigorated federal leadership for sustainable recycling. Agencies with which EPA is working include the Departments of Agriculture, Commerce, Education, Energy, Health and Human Services, Interior, Justice, and Treasury. Other agencies include the Office of Management and Budget, USPS, CEQ, General Services Administration and the FEE. These joint efforts are intended to increase coordination and lend focus to federal recycling activities, to avoid duplication of effort and increase access by the public to federal information and assistance.

### **Statutory Authorities**

Solid Waste Disposal Act as amended by the Hazardous and Solid Waste Amendments of 1984.

## Environmental Protection Agency

### FY 2000 Annual Performance Plan and Congressional Justification

#### Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

##### Objective # 7: Assess Conditions in Indian Country

By 2003, 60% of Indian Country will be assessed for its environmental condition and Tribes and EPA will be implementing plans to address priority issues.

##### Resource Summary (Dollars in thousands)

	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request	FY 2001 Req. v. FY 2000 Ena.
Assess Conditions in Indian Country	\$52,155.7	\$52,826.1	\$64,196.3	\$11,370.2
Environmental Program & Management	\$9,570.4	\$10,197.7	\$11,610.9	\$1,413.2
State and Tribal Assistance Grants	\$42,585.3	\$42,628.4	\$52,585.4	\$9,957.0
Total Workyears	80.7	84.0	87.4	3.4

##### Key Programs (Dollars in thousands)

	FY 1999 Enacted	FY 2000 Enacted	FY 2001 Request
Tribal General Assistance Grants	\$42,585.4	\$42,628.4	\$52,585.4
Administrative Services	\$27.1	\$97.0	99.8
Regional Management	\$0.0	\$41.4	\$45.9

##### FY 2001 Request

Under Federal environmental statutes, the Agency has numerous responsibilities for assuring human health and environmental protection in Indian country. Since 1984, EPA policy has been to

work with Tribes on a government-to-government basis that affirms the vital trust responsibility that EPA has with every federally-recognized Tribal government. Under the Administrator's 1994 Action Plan for the EPA Indian Program, EPA endeavors to address Tribal environmental priorities, ensure compliance with environmental laws, provide field assistance, assure effective communication with Tribes, allow flexibility in grant programs, and increase resource investments for Tribal operations. Agency-wide EPA Tribal funding (located in Goals 1,2,3,4,5,6,7,9 and 10) has grown from \$38 million in FY 1993 to \$188 million in FY 2001, an increase of 400%.

A lack of comprehensive environmental data severely impacts our ability to properly identify risk to human health and the environment in Indian country. Progress toward building Tribal and EPA infrastructure and completing a documented baseline assessment of environmental conditions in Indian country will enable EPA/Tribes to identify high priority human health and environmental risks. These assessments will provide a blueprint for planning future activities through the development of Tribal/EPA Environmental Agreements (TEAs) or similar Tribal environmental plans to address and support priority environmental multi-media concerns in Indian country.

By the end of 2001, EPA expects to complete key reforms to the Agency's data infrastructure to address Tribes. By the end of 2001, EPA will also complete a baseline assessment of 38% of Indian country using existing information. EPA anticipates that existing information will provide a sufficient basis for sound environmental planning and program implementation in some areas. In other areas, EPA anticipates the baseline assessment will identify key data gaps for resolution. By the end of 2000, EPA will have invested \$2.1 million in these activities.

Under the authority of the Indian Environmental General Assistance Program (GAP) Act of 1992, EPA provides grants to Tribal governments and intertribal consortia for developing the capacity to administer multi-media programs. EPA is requesting an additional \$10 million in 2001 (total of \$52.6 million) so that 80 additional Tribes will have at least one or two persons working in their community to build a strong, sustainable environment for the future. These people perform vital work by assessing the status of a Tribe's environmental condition and developing the infrastructure for an environmental program tailored to that Tribe's needs. In addition to developing, for example, the environmental education programs and solid waste management plans needed in almost every Tribal community, a key role of these personnel is to alert EPA to serious conditions requiring attention in the near term so that, in addition to assisting in the building of Tribal environmental capacity, EPA can work with the Tribe to respond to immediate public health and ecological threats.

The EPA has strived to work effectively with Indian Tribes since before the promulgation of its formal Indian Policy in 1984. Vital to that policy are the principles that the Agency has a government-to-government relationship with Tribes, and that "EPA recognizes Tribes as the primary parties for setting standards, making environmental policy decisions and managing programs for reservations, consistent with agency standards and regulations." To that end, EPA "encourage[s] and assist[s] Tribes in assuming regulatory and program management responsibilities," primarily through its Treatment in the Same Manner as a State (TAS) process under several environmental statutes. See, e.g., 33 U.S.C. § 1377 & 42 U.S.C. § 7601(d).

EPA's policy has been and will continue to be that Tribes develop the capability to implement federal programs themselves. However, in working with Tribes, EPA has realized that TAS does not suit the needs of all Tribes. Some Tribes with pollution sources and other environmental problems may be too small to support a fully delegated or approved environmental programs. Other Tribes are wary of seeking TAS status because it may lead to costly litigation that may in turn lead to a diminishment of Tribal sovereignty. As a result few Tribes have sought TAS under EPA's various regulatory programs. In the absence of EPA-approved Tribal programs, EPA generally faces practical challenges in implementing the federal programs in Indian country. EPA will continue to encourage and work with Tribes to develop their capability to implement Federal environmental programs.

In accordance with the President's 1994 Memorandum and its own longstanding policy, EPA is considering additional approaches for how EPA and Indian Tribes might work together to protect public health and the environment in Indian country. As part of that effort, EPA is proposing appropriations language that would provide another tool to implement its federal programs while removing existing legal and procedural impediments to working directly and effectively with Tribal governments. The proposed language would allow EPA to award cooperative agreements to federally recognized Indian Tribes or Intertribal consortia if authorized by their tribal members to assist the Administrator in implementing federal environmental programs for Indian Tribes. These cooperative agreements would be made notwithstanding the Federal Grant and Cooperative Agreement Act requirements that federal agencies use a contract when the principal purpose of a transaction is to acquire services for the direct benefit or use of the United States. Cooperative agreements, rather than a contract under the federal acquisition regulation, are the preferred funding mechanism, since they better reflect the government-to-government relationship. They would be made using funds available to EPA for direct implementation of federal environmental programs on Indian lands. These cooperative agreements would not be awarded using funds designated for State financial assistance agreements.

The proposed language would promote Tribal participation when EPA is directly implementing federal environmental programs in Indian country or for Tribes. It would also help Tribes build the capacity to achieve TAS status if they wish to do so. While EPA would retain final decision-making authority and ultimate responsibility for all regulatory activities where EPA directly implements federal programs, the proposed language would allow for varying degrees of Tribal involvement in assisting EPA in carrying out the federal program depending upon a Tribe's interest and ability in carrying out specific work. Some Tribes might perform much of the work for EPA necessary to develop and carry out federal environmental programs. Other Tribes might gradually increase their involvement as their capacity to assist EPA increases over time. In this way, the proposed language would improve environmental protection while also building the capacity and expertise of the Tribes to run their own environmental programs.

**FY 2001 Change from FY 2000 Enacted**

**EPM**

- (+4.9 FTE) These workyears will be used for GAP grant oversight and program and technical assistance to Tribes as well as implementation of the baseline assessment.
- (+\$663,200) This increase supports the aforementioned workyear increase as well as cost of living and other intramural increases under this objective.
- (+\$835,000) This increase supports the continuation of a baseline assessment of environmental conditions on tribal lands. In order to assure that Tribes have adequate information with which to make environmental decisions, EPA strives toward completing a documented baseline assessment of environmental conditions in Indian country to enable EPA/Tribes to identify high priority human health and environmental risks.

**STAG**

- (+\$10,000,000) for the Indian General Assistance Program grants will allow Tribes to build the capacity to implement their own environmental programs and to develop baseline data by which future environmental progress can be measured. The additional resources will primarily fund Tribes without an environmental presence to begin developing critically needed environmental infrastructure. Tribes that already have environmental presence will be able to develop more sustainable and comprehensive core environmental programs.

**Annual Performance Goals and Performance Measures**

**Tribal Environmental Baseline/Environmental Priorities**

- In 2001 Baseline environmental information will be collected by 34% of Tribes (covering 50% of Indian Country).
- In 2000 16% of Tribal environmental baseline information will be collected and 12 additional tribes (cumulative total of 57) will have tribal/EPA environmental agreements or identified environmental priorities.
- In 1999 10% of Tribal environmental baseline information was collected and 46 additional tribes have tribal/EPA environmental agreements or identified environmental priorities.

Performance Measures:	FY 1999 Actuals	FY 2000 Estimate	FY 2001 Request
Tribal environmental baseline information collected	10	16	% Baseline
Tribes with Tribal/EPA environmental agreements or identified environmental priorities	46	12	Tribes

Baseline: There are 580 tribal entities that are eligible for GAP program funding. These entities are the ones for which environmental assessments of their lands will be conducted.

## **Verification and Validation of Performance Measures**

### **Goal 4 Objective 7**

#### **Performance Measure: Number of environmental assessments for Tribes.**

**Performance Database:** The database is available monitoring data and other environmental assessment information. Gaps will be identified where data does not exist to determine the environmental condition for a Tribe. Gaps will be identified by media and, as appropriate, EPA program. In limited instances, data may be collected to fill key data gaps.

**Data Source:** Data will be collected from EPA National Data sets in Envirofacts, Regional Records on grant programs in GICS and other data collection activities, Tribal office records on Tribal and Federally funded data collection and other assessment activities. As needed, data also will be sought from State records.

**QA/QC Procedures:** Data sources will be referenced and data will be identified as to date of data, program or purpose of data collection, and, to the extent known, applicable QA/QC procedures that were in place for the data collection activity. All new data collection activity will be in accordance with current Agency QA/QC procedures.

**Data Quality Review:** Reports will be compiled for each Tribe using a data collection process that involves appropriate program staff in both file and record review. Each draft report will be subject to review by EPA (HQ and Regional) and the applicable Tribe prior to being issued by the American Indian Environmental Office (AIEO). Existing data collection began in FY 99 and will continue through mid FY01. Reviews of draft reports that summarize existing data are expected to be conducted throughout FY00 and FY01.

**Data Limitations:** Data will be incomplete. These reports will assess the condition of the environment in Indian country primarily by using available information. Some parts of the environment are more thoroughly studied than others. Therefore the assessments will be more complete in some areas than in others. Areas where the condition is unknown will be identified.

**New/Improved Data or Systems:** The National program office will review and analyze the data limitations and data gaps discovered during the development of these Tribal assessments. AIEO, NPM's, and Regional Offices in cooperation with the Tribes will determine the appropriate follow-up activities to address data inadequacies and gaps through contract resources, grant work plans and environmental program negotiations.

### **Coordination with Other Agencies**

The following examples describe coordination efforts that involve resources associated with this goal, and in some cases Goals 2 and 5 as well.

#### Clean Water Action Plan

With the Department of the Interior, EPA co-chairs an Inter-Agency Tribal Coordinating Committee (ITCC) chartered by the federal Clean Water Action Plan (CWAP) Steering Committee to help federal teams work with Tribes to implement the CWAP in Indian country. For example, in 1999 the ITCC worked with the CWAP Unified Watershed Assessment (UWA) action team to sponsor four Tribal workshops to provide Tribes with federal data and technical assistance as the Tribes prepare Unified Watershed Assessments (UWAs). More than 150 Tribal representatives attended these workshops. In some areas, EPA Regional and Department of Agriculture/Natural Resources Conservation Service field staff are providing additional technical assistance to Tribes working on their UWAs. The ITCC will continue to provide guidance, assistance and support to the CWAP steering committee and work with other CWAP action teams and Tribes to implement the CWAP.

#### Domestic Policy Council

With the Bureau of Indian Affairs, the Agency co-chairs the Subgroup on the Environment & Natural Resources of the White House Domestic Policy Council's Working Group on American Indians & Alaska Natives. The Subgroup has completed, distributed to all Tribes and placed on the Internet a "Tribal Environment and Natural Resources Assistance Handbook" that summarizes resources/programs available across the federal government to help Tribes manage their environment/natural resources. The Subgroup is also conducting a Regional pilot project to explore intergovernmental problem-solving options for federal agencies and Tribes that would address Tribal environmental and natural resources issues in a more comprehensive and timely manner than Tribal involvement in the late stages of an Agency's decisionmaking via review of draft NEPA documents. In 2000, the Subgroup intends to complete a review/revision of the existing four-Agency (EPA, Bureau of Indian Affairs, Indian Health Service, and Housing and Urban Development) Memorandum of Understanding regarding cooperation on environmental matters (see below).

#### EPA/BIA/IHS/HUD Memorandum of Agreement

Under the existing Memorandum of Agreement, the Bureau of Indian Affairs and EPA collaborate on review of National Environmental Policy Act (NEPA) documents from federal agencies to determine whether Tribal resources are adversely affected by the agencies' proposed actions. EPA and BIA are beginning to work together to coordinate EPA's work with Tribes to develop Tribal/EPA Environmental Agreements with BIA's work with Tribes on Integrated [Natural] Resource Management Planning. Regional EPA Offices (for example: Regions 5 and 8) are developing and implementing more comprehensive MOUs to coordinate federal activities affecting/addressing Tribal public health and environmental resources.

## EPA/BIA Interagency Cooperation on Environmental Compliance

EPA and BIA are developing a working relationship on matters of pollution prevention and compliance assistance. For example, EPA is training BIA field staff on how to conduct their own pollution prevention and environmental compliance audits. EPA is also assisting BIA in audits of a number of selected BIA facilities that are likely to demonstrate environmental compliance issues common to many similar BIA facilities.

## Solid Waste Interagency Workgroup

EPA and a large number of Agencies including the Bureau of Indian Affairs, the Indian Health Service, the Federal Aviation Administration, the National Oceanic and Atmospheric Administration, and the Departments of Housing and Urban Development, Agriculture (Forest Service and Rural Utilities Service), and Defense are working collaboratively to identify, prioritize and close solid waste dumps in Indian country. The Group is focusing on 146 of the highest priority sites from the Indian Health Service's 1997 Report to Congress, entitled "Open Dumps on Indian Lands," which contains an inventory of 1,162 open dumps in Indian Country. Additional agencies are likely to participate as the workgroup further defines its goals and strategy.

## Baseline Assessment of Environmental Conditions in Indian country

As EPA completes review of its existing data bases for information on environmental conditions in Indian country, the Agency has begun work with the US Geological Survey to access water quality data not yet accessible through existing national-scale Interagency efforts. EPA will then work with IHS to share data on water sanitation infrastructure location, condition, wastewater discharges and drinking water quality. Finally, EPA will work with BIA and Health and Human Service's Administration for Native Americans to incorporate appropriate information these Agencies may have on Tribal environments/natural resources.

## Other Examples of Interagency Coordination

Under a two- party Interagency agreement, EPA works extensively with the Indian Health Service to cooperatively address the drinking water and wastewater infrastructure needs of Indian Tribes. EPA and the Department of Interior are meeting to develop training for Tribes on the roles and responsibilities of Natural Resource Damage Trustees under Superfund authorities, with a pilot effort planned for Tribes in the Oklahoma/Kansas/Missouri mining belt. EPA is actively participating in the Department of Defense's Defense Environmental Restoration Task Force. EPA worked closely with the Department of Energy, Sandia Pueblo and Isleta Pueblo to approve the first temporary unit, on-site cleanup of RCRA wastes in Region 6 prior to disposal in an onsite corrective action management unit. Sandia Lab estimates the on-site treatment and disposal will save \$5 million in clean up costs. EPA Region 1 and ATSDR are evaluating the exposure of mercury to Tribal members in Indian country. ATSDR is assisting the Tribes and EPA in developing a Tribal fish consumption survey and looking at existing data (fish tissue analysis and air data) to determine if testing of human hair, blood, or urine is warranted due to the level of mercury exposure.



## **Statutory Authorities**

Indian Environmental General Assistance Program (GAP) Act of 1992 as amended (42 U.S.C. 4368b)