FY 2017
EPA Budget in Brief

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Budget in Brief

Table of Contents

EPA's Mission

The mission of the Environmental Protection Agency (EPA) is to protect human health and the environment. We achieve this by striving to keep pollution out of the air we breathe, the water we drink and swim in, and harmful chemicals out of the food we eat and the lands where we build our homes and our communities. The agency's FY 2017 budget supports implementation of the EPA's priorities through focused efforts to develop and implement creative, flexible, cost-effective, common sense and sustainable actions to protect public health, and to safeguard the environment. Today's environmental problems require critical thinking about the complex interactions of environmental pollutants and new tools that promote innovation, incentives and partnerships. The EPA's FY 2017 budget continues to build on the Administration and agency priorities set in FY 2015 and 2016. The FY 2017 budget maintains our focus on our core work, sustains funding necessary to operate the agency effectively, and continues focused efforts in cybersecurity that were started in FY 2016.

The issue of highest importance facing the agency over the next few years will continue to be greenhouse gas (GHG) mitigation and climate change adaptation. The EPA will continue to use a variety of approaches to address these challenges including traditional regulatory tools; innovative market-based techniques; public- and private-sector partnerships; community-based approaches; and programs that encourage voluntary adoption of cost-effective technologies and practices.

The FY 2017 budget reflects the EPA's commitment to increase our engagement with local communities and address what really matters to people, to make a visible difference with new approaches and tools to accelerate environmental progress. The agency will build on our ongoing efforts to enhance the livability and economic vitality of neighborhoods; strengthen our relationship with America's agricultural community; address impacts of climate change; support green infrastructure and resiliency; and reduce air pollution along roadways, railways, and at ports. The EPA also will build on efforts to promote more sustainable, healthier communities by restoring land, developing prevention programs, improving response capabilities, and maximizing the impact of cleanup actions. Central to our strategy is maintaining a strong and effective enforcement program, modernizing and streamlining how we work, and effectively leveraging technology and the efforts of our partners. The EPA will continue to rebuild internal capacity that has been lost through several years of reductions, provide training and information technology support for our workforce, modernize our business process for long-term sustainability and make strategic choices in FY 2017 that support the EPA of the future. We will take into consideration the impacts of our decisions on disadvantaged communities through increased analysis, the most up-to-date science, and enhanced community engagement.

We will work to provide all parts of society—communities, individuals, businesses, and federal, state, local, and Tribal governments—access to usable and understandable information so that they may participate effectively in managing human health and environmental risks. The EPA's work is guided by the best possible scientific information and a commitment to transparency and accountability.

The EPA is proud to be a good steward of taxpayer resources and to deliver environmental protection efficiently. To learn more about how the agency accomplishes its mission, including information on the organizational structure and regional offices, please visit: http://www.epa.gov/aboutepa/.

FY 2017 Annual Performance Plan

The EPA's FY 2017 Annual Performance Plan and Budget of $8.267 billion is $127 million above the FY 2016 Enacted budget of $8.139 billion. The agency will increase its FTE level to 15,078 appropriated FTE, which is an increase of 39.9 FTE above FY 2016. Resources will address our highest priorities and sustain efforts for critical next steps where sound implementation and support are necessary to make progress on priority actions in: addressing climate change and improving air quality; taking action on toxics and chemical

safety; protecting water; cleaning up communities and advancing sustainable development; supporting state, Tribal and local partnerships; strengthening the EPA as a forward looking organization; and maintaining core enforcement strength.

We will make steady progress and build on the work we have done with our partners which includes raising awareness that social justice includes environmental justice. We will move beyond planning and into implementation in areas like the Clean Power Plan and water infrastructure finance. Across all our programs, we continue to focus on meaningfully transforming the way we do business to provide greater benefit to all stakeholders, including taking advantage of the advances in technology. In FY 2017, we will continue E-Enterprise, program evaluation, and Lean efforts focused on a new, more results-driven approach that emphasizes customer-facing, integrated, and less burdensome interactions for the regulated community as well as greater efficiency for states and the EPA.

FY 2016-2017 Agency Priority Goals

This budget highlights the EPA's five FY 2016-2017 Agency Priority Goals that advance the agency priorities and the agency's Strategic Plan. Additional information on Priority Goals can be found at http://www.performance.gov/.

Reduce greenhouse gas emissions from cars and trucks.

Through September 30, 2017, the EPA, in coordination with Department of Transportation's fuel economy and fuel consumption standards programs, will implement vehicle and commercial truck GHG standards with a focus on industry compliance to ensure the significant reductions in GHGs and oil consumption called for under the standards are realized. The light-duty and heavy-duty standards for model years 2012-2025 are projected to reduce GHG emissions by more than 6.3 billion metric tons and reduce U.S. oil consumption by more than 12.5 billion barrels over the lifetime of the affected vehicles and commercial trucks.

Advance resilience in the nation's water infrastructure, while protecting public health and the environment, particularly in high-risk and vulnerable communities.

By September 30, 2017, the EPA will provide technical assistance and other tools to 25 urban communities to advance green infrastructure planning and implementation efforts to increase local climate resilience and water quality protections in stormwater infrastructure. The EPA will also provide tools and training for 1,000 operators of small water utilities to improve resilience in drinking water, wastewater, and stormwater systems. Trainings will be targeted based on regional threats, such as drought and flooding.

Clean up contaminated sites to enhance the livability and economic vitality of communities.

By September 30, 2017, an additional 18,600 sites will be made ready for anticipated use (RAU), thereby protecting Americans' health and the environment, one community at a time.

Assess and reduce risks posed by chemicals and promote the use of safer chemicals in commerce.

By September 30, 2017, the EPA will complete more than 3,400 assessments of pesticides and other commercially available chemicals to evaluate risks they may pose to human health and the environment. These assessments are essential in determining whether products containing these chemicals can be used safely for commercial, agricultural, and/or industrial uses. For example, assessments can help determine the potential for chemicals to disrupt endocrine systems or to pose risks to honey bees and other pollinators by outdoor use of pesticides.

Strengthen environmental protection through business process improvements enabled by joint governance and technology.

By September 30, 2017, the EPA will reduce burden by one million hours, add five new functionalities to the E-Enterprise Portal, and begin development on two projects selected through E-Enterprise Leadership Council joint governance.

FY 2017 Funding Priorities

Addressing Climate Change and Improving Air Quality

One of the most significant challenges for current and future generations is the threat from a changing climate. The issues of highest importance facing the agency over the next few years will continue to be GHG mitigation and climate change adaptation. The FY 2017 budget prioritizes climate change and reflects the President's 2013 Climate Action Plan. The Clean Power Plan is the top priority for the EPA and the central element of the U.S. domestic climate mitigation agenda. The agency is working differently by utilizing innovative approaches and providing opportunities for greater flexibility and enhanced partnership with the states. The recently finalized carbon pollution standards for new and existing power plants under Sections 111(b) and 111(d) under the Clean Air Act are an example.

The President's Climate Action Plan frames the EPA's strategies to address climate change, and among other initiatives, tasks the EPA with addressing GHGs from the transport sector. The next phase of light- and heavy-duty vehicle standards will build upon the success of the current standards and will offer further opportunities to reduce GHG emissions, decrease the nation's oil use, and benefit consumers and business by reducing the cost of transporting. The agency also committed to perform, in coordination with the National Highway Traffic Safety Administration (NHTSA) and the California Air Resources Board (CARB), a Midterm Evaluation of the Model Year 2022-2025 light-duty GHG standards. To support the Midterm Evaluation, the agency will perform a comprehensive feasibility evaluation of advanced technologies in FY 2017.

While we continue to make progress addressing GHG emissions, further efforts are required to put the country on an emissions trajectory consistent with the President's long-term climate goals. There are significant non-regulatory opportunities for GHG mitigation that can be achieved by leveraging synergies across existing EPA voluntary activities in waste, water, and pollution prevention.

As required by the Clean Air Act the EPA will continue to administer the National Ambient Air Quality Standards (NAAQS) by taking federal oversight actions, when necessary, and by developing guidance for use by state, tribal, and local air agencies to ensure continued health and welfare protection. In FY 2017, the agency will continue a strong emphasis on supporting communities in their efforts to combat localized effects of air pollution.

Making a Visible Difference in Communities Across the Country

Communities face multiple pollution problems and are looking for holistic solutions. To accelerate efforts to protect communities, the agency is providing resources for community outreach programs in FY 2017 to support efforts that include helping meet community needs in capacity building, planning, and implementation. The EPA supports the goals of urban, suburban and rural communities to grow in ways that improve the environment, human health and quality of life for their residents. With the support of partners across all levels of government, communities can do this using approaches that also strengthen the economy, help adapt to climate change, improve resiliency to disasters, use public resources more efficiently, revitalize neighborhoods, and improve access to jobs and amenities. Through its cleanup programs, the EPA will continue to use approaches that promote sustainable healthier communities by restoring the land, developing prevention programs, improving response capabilities and maximizing the impact of cleanup actions. The EPA has made it a priority to work at the community level along with other federal agencies, states and other stakeholders to improve the health of American families and protect the environment all across the country. We will continue to build on these relationships in FY 2017.

Adaptation and resiliency to the effects of climate change constitutes a significant emerging challenge for communities. The agency will continue to engage communities to be full partners in agency programs that make a visible difference in their community by working to provide holistic central mechanisms to support, assist, and engage with disadvantaged communities and vulnerable populations, including Tribal populations, rural communities and children. Decisions to address climate change impacts will need to be made by local leaders. However, many small communities lack the capacity to build resilience to climate change and have expressed a strong need for technical assistance to integrate climate adaptation planning into their work. In FY 2017, $2.9 million is included to conduct resiliency planning exercises and capacity-building efforts in Alaska Native Villages. However, the EPA does not have the staff to directly provide technical assistance to every community. In FY 2017 the agency is working to enhance a set of flexible community-oriented grants that can provide access to the expertise communities need as they address environmental aspects of local issues. The FY 2017 budget includes over $9 million for these efforts. In addition, the Environmental Justice (EJ) program will continue to emphasize fostering greater collaboration and leveraging of resources across the EPA and the rest of the federal family. Supporting the creation of such collaborations in vulnerable and overburdened communities will ensure that they attain the necessary capacity and skills to fully benefit from specialized agency programs. Within the EJ program, the agency will increase funding of $5.0 million to build community capacity and $1.0 million for technical assistance and training.

Under local planning and zoning codes that account for the environmental impacts of development, the private sector can more easily construct market-ready "green" buildings serving a range of housing needs. Communities can benefit from tools, technology and research that better engage citizens and inform local decision making to support smart and sustainable growth, including the significant long-term decisions they face for drinking water and water infrastructure. By making sustainable infrastructure investments, communities can successfully build innovative and functional systems on neighborhood streets and sidewalks to deal with the run-off from stormwater and still provide easy access for pedestrians, bicyclists, on-street parking and other beneficial uses. In FY 2017, the agency will continue to allocate $4.9 million for advanced monitoring technology that will empower communities in making these local decisions.

Many communities across the country regularly face risks posed by intentional and accidental releases of hazardous substances into the environment. Approximately 166 million people (roughly 53 percent of the U.S. population), including 55 percent of all children in the U.S. under the age of five, live within three miles of a Superfund, Resource Conservation and Recovery Act (RCRA) Corrective Action, or Brownfields site that received EPA funding. This population is more likely to be minority, lower income, and linguistically isolated, and less likely to have a high school education in comparison to the U.S. population as a whole. In FY 2017, the agency is investing over $1.32 billion to continue to apply the most effective approaches to preserve and restore land by developing and implementing prevention programs, improving response capabilities, and maximizing the effectiveness of response and cleanup actions under RCRA, Superfund, Leaking Underground Storage Tanks (LUST) and other authorities. This strategy will help ensure that human health and the environment are protected and that land is returned to beneficial use in the most effective way.

Leveraging Technology

In FY 2017, the EPA will continue to modernize the business of environmental protection through the E-Enterprise strategy – jointly governed by states and the EPA – which is rethinking how government agencies deliver environmental protection. Under this strategy, the agency will continue streamlining its business processes and systems to reduce reporting burden on states and regulated facilities, and improve the effectiveness and efficiency of regulatory programs for the EPA, states and tribes. Within the E-Enterprise business strategy context, the agency will continue to pilot projects, such as the E-Enterprise Portal and Federated Identity Management prototypes, that transform an array of disjointed but similar functions in states and tribes to a more coordinated and open platform of services to make environmental data reporting, reporting and sharing faster, simpler and less expensive.

The EPA has taken steps to transform information management, where tools and technologies will greatly improve the EPA's internal analytic capability and transparency projects – with the added benefit of allowing the public to do much more with the EPA's data. This is not just an effort to save money; the EPA is looking

toward the future for ways to better serve the American people. These efforts include new and enhanced ways to gather data, conduct analysis, perform data visualization and use "big data" to explore and address environmental, business, and public policy challenges. By looking at environmental problems and opportunities in a holistic manner, cross-media impacts can be identified, leading to creative and more efficient solutions. Across the agency's IT budgeting, acquisition, portfolio review, and governance processes, we have adopted practices that improve delivery of capability to users, driven down lifecycle costs, and ensured proper leveraging of shared services in compliance with the Federal Information Technology Acquisition Reform Act (FITARA).

We remained focused on the need to address the emerging issue of cybersecurity. We will build on and sustain work begun in FY 2016, significantly enhancing foundational capabilities and continuing to close gaps in the security architecture. In addition, these resources will enable the agency to improve the capabilities for detecting, responding to and protecting against attacks on data stores, capturing and integrating threat intelligence sources, and developing mobile device controls.

Leveraging technology will enable the agency to move from a heavily paper-based evidence gathering process to a digitally-based rapid electronic process. The vision is to better identify patterns of problems, be more efficient and effective in data collection and records management, increase transparency on programmatic and compliance status and allow for quicker responses where appropriate, while improving accountability across the full spectrum of the agency's programs.

Maintaining and Strengthening a Forward Looking Environmental Protection Organization

In FY 2017, the agency will continue to seek opportunities to develop and enhance the EPA as a Forward Looking Organization. To address ongoing resource challenges and new and existing environmental priorities, the EPA must continue to transform itself through revising business practices utilizing technology and ensuring its workforce is properly equipped and trained.

FY 2017 efforts will be designed to further develop the use of Lean methods, tools and techniques throughout the organization and within the co-regulator community, building upon resources allocated in FY 2016. The agency also is making necessary investments to improve internal IT services to support productivity and address the issue of cybersecurity. It is especially important to instill a culture of continuous business process improvement (using Lean principles, for example) throughout the agency. Employees at all levels at the EPA will be equipped and empowered to use Lean methods for eliminating non-value added activities so that they can focus more directly on the tasks at hand – from hiring and procurement to permitting and enforcement – that support the EPA's mission of protecting the public's health and the environment.

Since FY 2012 the EPA has released over 250 thousand square feet of office space nationwide, resulting in a cumulative annual rent avoidance of nearly $9.2 million across all appropriations. These savings help offset the EPA's escalating rent and security costs. Consolidations and moves also are planned for Potomac Yard North at Headquarters and a set of Regional Offices that will allow the EPA to release another estimated 336 thousand square feet of office space. For FY 2017, the agency is requesting $247.6 million for rent, $32.6 million for utilities, and $49.1 million for security. The EPA will continue to explore opportunities to reconfigure workplaces and initiate space optimization projects with the potential for the greatest long-term cost and energy savings. The agency is implementing a long-term space consolidation plan that will reduce the number of occupied facilities, consolidate space within remaining facilities, and reduce square footage wherever practical.

The agency will continue to address concerns expressed by employees through the Employee Viewpoint Survey (EVS) by directing additional resources and further developing labor and employee relations efforts through high quality management-level training.

Taking Action on Toxics and Chemical Safety

Chemicals and toxic substances are ubiquitous in our everyday lives and products. They are used in the production of everything from our homes and cars to the cell phones we carry and the food we eat. Chemicals often are released into the environment as a result of their manufacture, processing, use, and

disposal. Vulnerable populations, including low-income, minority, and indigenous populations, as well as children, may be disproportionately affected by, and thus particularly at risk from exposure to chemicals. Keeping communities safe and healthy requires action to reduce risks associated with exposure to chemicals in commerce, our indoor and outdoor environments, and products and food. The $67.2 million provided in FY 2017 for the Chemical Risk Review and Reduction Program will allow the EPA to sustain its success in managing the potential risks to human health and the environment and will provide regional staff to work on TSCA issues.

In FY 2017, the EPA's pesticide licensing program will continue to evaluate new pesticides before they reach the market and ensure that pesticides already in commerce are safe when used in accordance with the label as directed by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the Federal Food, Drug, and Cosmetic Act (FFDCA), and the Food Quality Protection (FQPA). The EPA will register pesticides in a manner that protects consumers, pesticide users, workers who may be exposed to pesticides, children, and other sensitive populations. The program also will continue the registration review process for older pesticides that tend to have more significant risks. For all pesticides in review, the EPA will evaluate potential impacts on the environment with particular attention to endangered species and the effects of pesticides on honey bees and other pollinators.

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

Protecting Water: A Precious, Limited Resource

In FY 2017, the EPA will continue the complex work necessary to implement the Water Infrastructure Finance and Innovation Act (WIFIA), by beginning to finance projects for large, innovative drinking water and wastewater infrastructure projects of regional or national significance. WIFIA funding of $20 million is requested to begin making these loans, including covering administrative costs.

While much progress to improve water quality has been made over the last two decades, America's waters remain imperiled from increased demand, land use practices, population growth, aging infrastructure, and the impacts of climate change. Preserving and restoring the integrity of these waters is critical not only for protecting human health and the environment but also to property values, tourism, and commercial and recreational fishing, hunting, and other economic considerations. The EPA will continue its partnerships with other federal agencies, states, tribes, municipalities, and private parties to address these complex challenges through a combination of traditional and innovated strategies, such as promoting green infrastructure and sustainable solutions, building resiliency, developing new targeting tools, and developing and implementing nutrient limits, along with the agency's core water quality work.

Dependable, available drinking water and sanitation in communities depends on working, modern infrastructure, but leaking water collection and distribution systems, and inadequate drinking water and wastewater treatment continue to plague municipalities across the country. In FY 2017 the agency is requesting $2 billion for the Clean Water and Drinking Water State Revolving Funds (SRFs). Since their inception, the SRFs have been funded at over $62 billion, with over $22 billion of that investment occurring since 2009. It is estimated that between 13,000 and 24,000 jobs result from every billion dollars in SRF funding. The SRFs will continue to provide public health and environmental benefits along with the positive employment and economic benefits of infrastructure investment.

New Era of State, Tribal, and Local Partners Partnership

Supporting our state and tribal partners, the primary implementers of environmental programs on the ground, is a long-held priority of the EPA. Funding to states and tribes in the State and Tribal Assistance Grants (STAG) account continues to be the largest percentage of the EPA's budget request, at 39.7 percent in FY 2017. The FY 2017 budget increases Categorical Grants by $77 million from the FY 2016 enacted budget. This reflects the agency's recognition of and commitment to supporting our partners and leveraging limited resources to deliver environmental protection to all Americans.

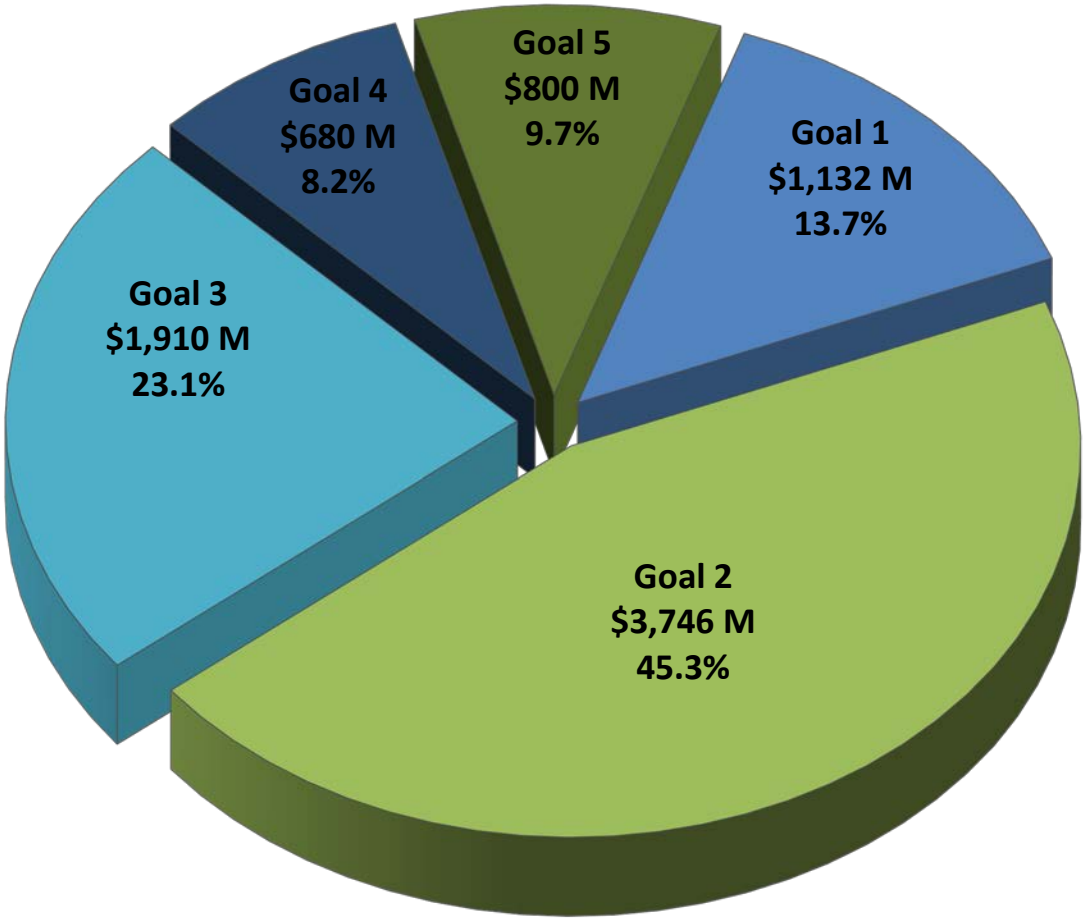
In FY 2017, the EPA's programs and activities will continue to support strategic partnerships between key implementers of environmental programs through the E-Enterprise business strategy. An integral part of an agencywide effort to launch a new era of state, local, Tribal, and international partnerships, E-Enterprise is jointly governed by states and the EPA to modernize government agencies' delivery of environmental protection in the U.S. The FY 2017 budget includes $15.7 million in funding to support states' role in E-Enterprise efforts including supporting coordination and governance for the Environmental Council of the States and state grants to provide broader state participation in E-Enterprise joint governance and implementation of projects resulting in greater efficiency across the environmental enterprise.

Eliminated Programs

The EPA continues to examine its programs to find those that have served their purpose and accomplished their mission. The FY 2017 President's Budget eliminates a number of programs totaling $85.4 million including Beaches Protection Categorical Grants, Multipurpose Categorical Grants, State Indoor Radon Grants, Targeted Airshed Grants, and Water Quality Research and Support Grants.

Environmental Protection Agency's FY 2017 Budget by Goal

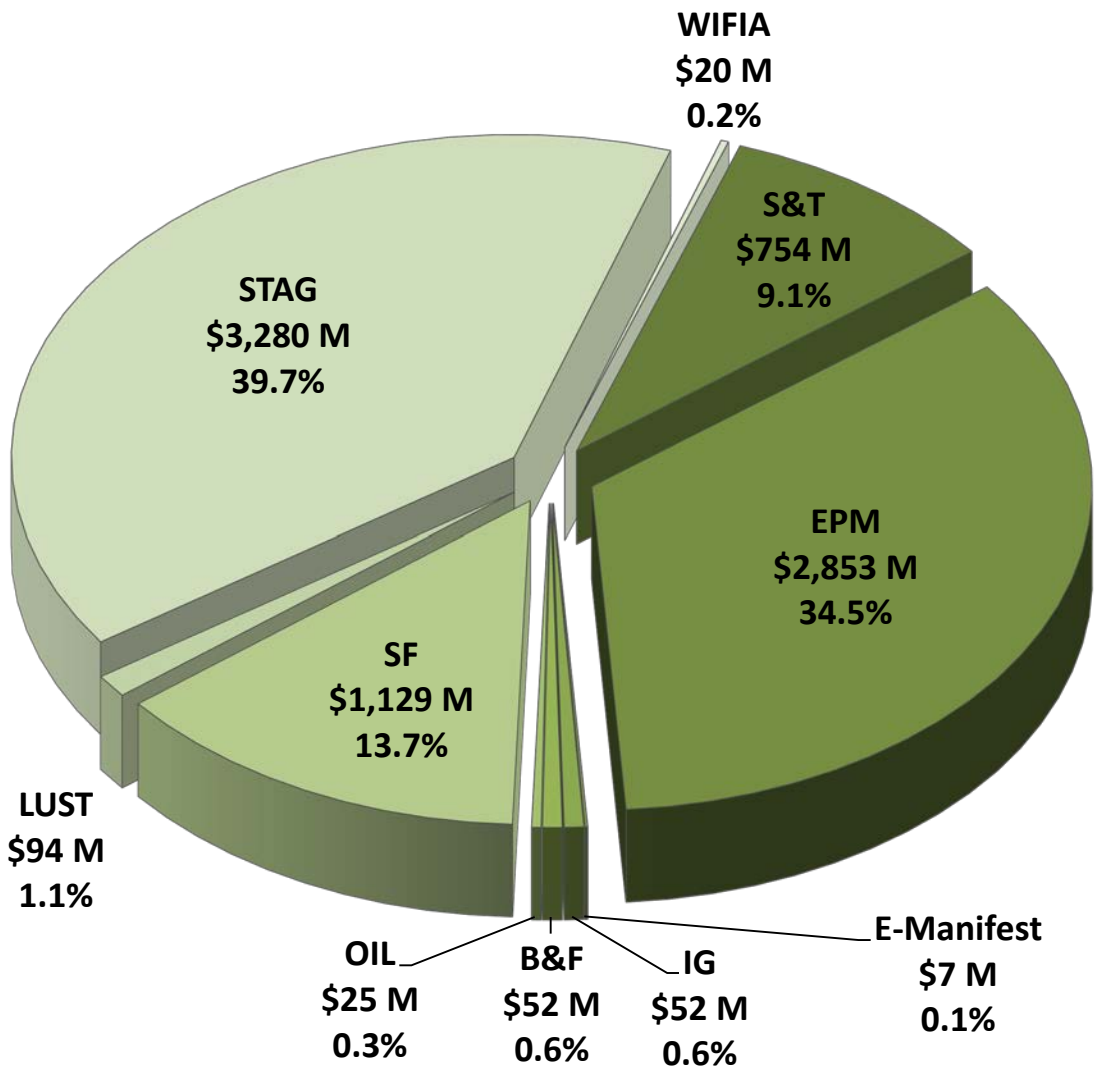
Total Agency: $8,267 Million



Notes: Totals may not add due to rounding.

Environmental Protection Agency's FY 2017 Budget by Appropriation

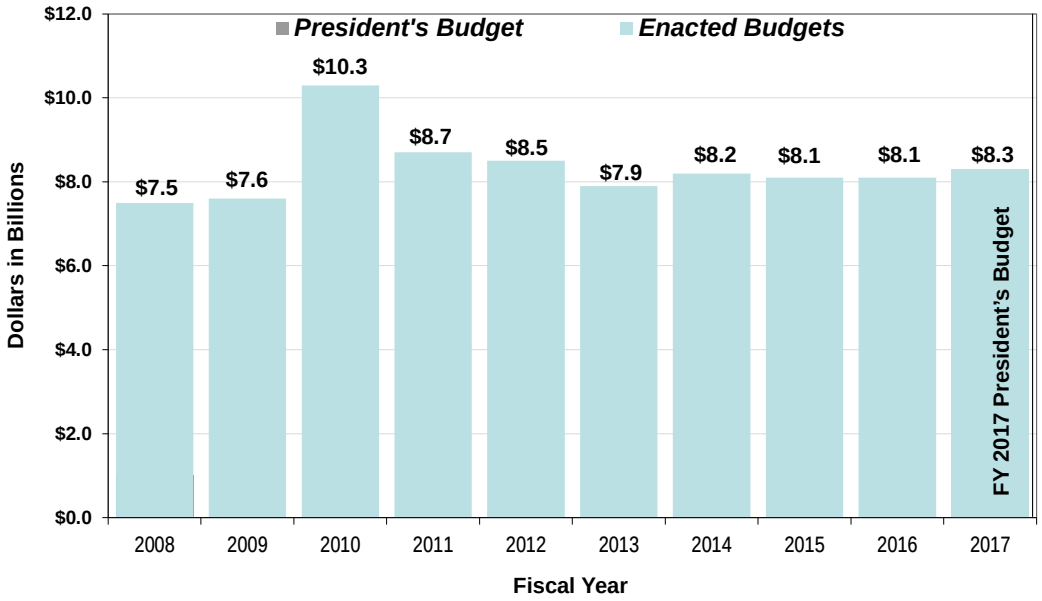
Total Agency: $8,267 Million



Notes: Totals may not add due to rounding.

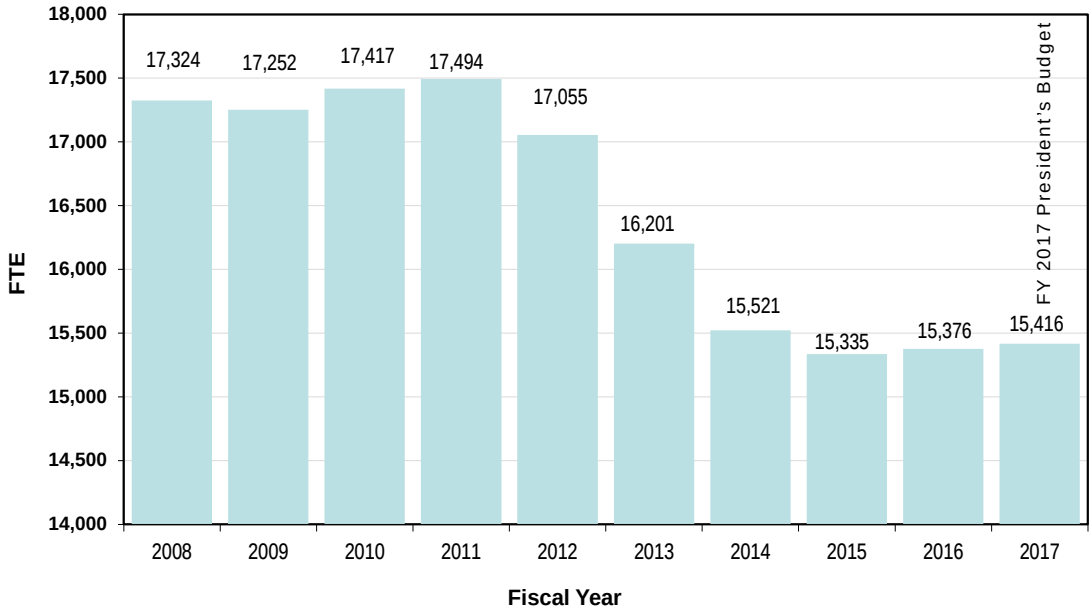
EPA's Enacted Budget FY 2008 to 2017

(Dollars in Billions)



Notes:
All agency totals include applicable rescission.
FY 2006 Enacted excludes Hurricane Katrina Relief supplemental funding.
FY 2009 Enacted excludes ARRA funding.
FY 2013 Enacted excludes Hurricane Sandy Relief supplemental funding.

EPA's FTE Ceiling History*

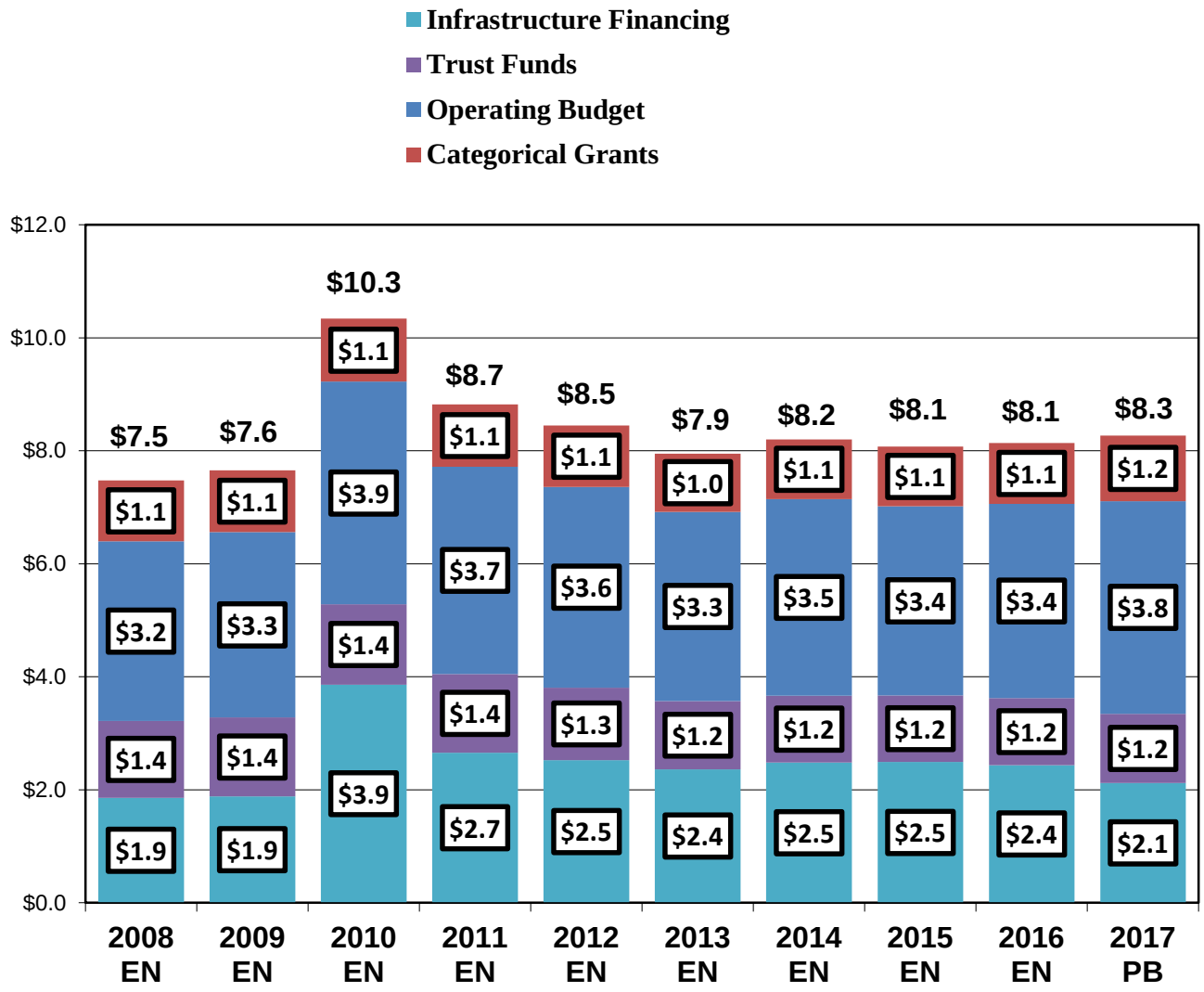


* FTE (Full Time Equivalent) = one employee working full time for a full year (52 weeks X 40 hours = 2,080 hours), or the equivalent number of hours worked by several part-time or temporary employees.

Reimbursable FTE are included.

Environmental Protection Agency's Resources by Major Category

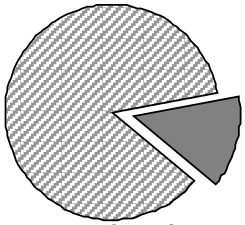
(Dollars in Billions)



Notes:
Totals may not add due to rounding
The Operating Budget includes funding provided for the Great Lakes Restoration Initiative
FY 2008 Enacted includes a 1.56% rescission and $5 M rescission to prior year funds
FY 2009 Enacted reflects a $10 M rescission to prior year funds
FY 2009 Enacted excludes ARRA funding
FY 2010 Enacted reflects a $40 M rescission to prior year funds
FY 2011 Enacted reflects a 0.2% rescission and $140 M rescission to prior year funds
FY 2012 Enacted reflects a 0.16% rescission and $50 M rescission to prior year funds
FY 2013 Enacted reflects operating levels after sequestration and excludes Hurricane Sandy Relief supplemental appropriation of $608 M
Reflects a 0.2% rescission and $50 M rescission to prior year funds
FY 2014 Enacted does not have a rescission
FY 2015 Enacted reflects a $40M rescission to prior year funds
FY 2016 Enacted reflects a $40M rescission to prior year funds

Goal 1: Addressing Climate Change and Improving Air Quality

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



13.7% of Budget

Resource Summary

(Dollars in Thousands)

	FY 2015 Enacted	FY 2016 Enacted	FY 2017 President's Budget	Difference FY 2016 EN to FY 2017 PresBud
1 - Address Climate Change	$190,665	$194,196	$279,821	$85,625
2 - Improve Air Quality	$751,499	$818,286	$794,820	($23,466)
3 - Restore and Protect the Ozone Layer	$16,694	$16,686	$17,454	$768
4 - Minimize Exposure to Radiation	$33,841	$34,701	$39,644	$4,943
Goal 1 Total	**$992,698**	**$1,063,870**	**$1,131,739**	**$67,869**
Workyears	2,501	2,597	2,628	31

NOTE: Numbers may not add due to rounding.

Introduction

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

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

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

hospital visits, respiratory and cardiovascular diseases, and even premature death—especially for certain vulnerable populations like the elderly, and children.

Since passage of the Clean Air Act Amendments (CAAA) in 1990, nationwide air quality has improved significantly. From 2003 to 2014, population-weighted ambient concentrations of fine particulate matter and ozone have decreased 29 percent and 18 percent, respectively. However, even with this progress, in 2014, approximately 57 million people in the U.S. lived in counties with air that did not meet health-based standards for at least one pollutant. Long-term exposure to elevated levels of certain air pollutants has been associated with increased risk of cancer, premature mortality, and damage to the immune, neurological, reproductive, cardiovascular, and respiratory systems. Short-term exposure to elevated levels of certain air pollutants can exacerbate asthma and lead to other adverse health effects and economic costs, such as missed workdays.

The air issues of highest importance facing the agency over the next few years will continue to be GHG mitigation and climate change adaptation, and ozone and particulate air pollution. The EPA uses a variety of approaches to address these challenges including traditional regulatory tools; innovative market-based techniques, public- and private-sector partnerships, community-based approaches, and programs that encourage voluntary adoption of cost-effective technologies and practices.

The EPA will continue to address the impacts of climate change through careful, cost-effective rulemaking and partnership programs that focus on the largest entities and encourage businesses and consumers to limit unnecessary GHG emissions. The President's Climate Action Plan frames the EPA's strategies to address climate change, and, among other initiatives, tasks the EPA with addressing GHGs from power plants. On August 3, 2015, the EPA finalized rules that will lower carbon pollution from existing fossil fuel-fired power plants and guidelines to help the states develop their plans for meeting their individual goals. The standards for existing sources will result in carbon pollution from the power sector that is 32 percent lower by 2030 (compared to 2005 emission levels).[2] In 2013, the electricity sector was the largest source of U.S. GHG emissions, accounting for about one-third of the U.S. total.

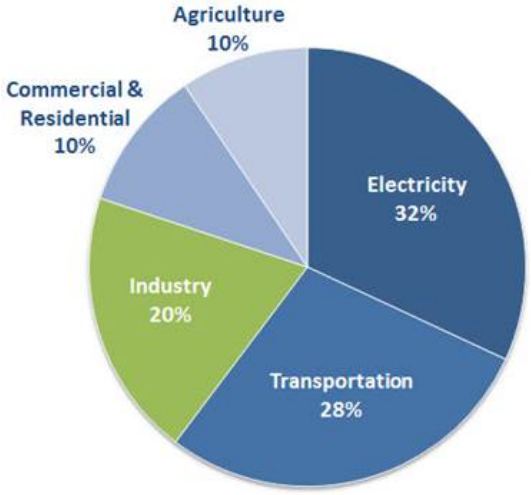


Figure 1: 2013 Total U.S. Greenhouse Gas Emissions by Sector[3]

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

[2] http://www2.epa.gov/cleanpowerplan/clean-power-plan-existing-power-plants.
[3] http://www.epa.gov/climatechange/ghgemissions/sources.html.

The transportation sector is the second largest source of greenhouse gases, and the EPA has made great progress creating a foundation for continuous improvement in emissions reduction technology. Working with the National Highway Transportation Safety Administration (NHTSA), the EPA proposed Phase 2 GHG and fuel efficiency standards for heavy-duty vehicles in 2015. The EPA, also in coordination with NHTSA, supports implementation and compliance with the GHG emission standards for light-duty and heavy-duty vehicles including the NHTSA Corporate Average Fuel Economy (CAFE) standards that have already been adopted. The national program of fuel economy and GHG standards for model year 2012 through 2025 light-duty and heavy- duty vehicles will save American consumers about $1.7 trillion, decrease the nation's fuel consumption by over 12 billion barrels of oil and prevent 6.3 billion metric tons of GHG emissions over the lifetimes of the affected vehicles and commercial trucks sold through model year 2025, an FY 2014-2015 Agency Priority Goal. In model year 2025, the EPA and NHTSA standards will require average fuel economy for cars and light trucks of approximately 54.5 miles to the gallon, a significant increase from the model year 2014 average of 31.8 miles to the gallon.[4] The EPA also will continue to implement the Renewable Fuels program, which requires an increasing percentage of vehicle fuel sold in the U.S. to be from renewable sources.

Under the Climate Action Plan, in March 2014 the Administration released the Strategy to Reduce Methane Emissions and, in January 2015, announced a goal to cut methane emissions from the oil and gas sector. The EPA and other federal agencies are pursuing a series of steps to put the U.S. on a path toward achieving a 40 to 45 percent reduction in methane emissions from 2012 levels by the year 2025. These actions include proposed updates to the agency's New Source Performance Standards (NSPS) for the oil and natural gas sector to regulate methane and address several previously unregulated sources, draft guidelines for states having to implement Reasonably Available Control technology for the oil and natural gas sector, and two rules which clarify and streamline air permitting requirements in states and Indian country, all issued August 2015. The EPA also proposed updates to its NSPS and Emission Guidelines for existing sources for the landfills source category in August 2015. These actions, when finalized, will achieve significant reductions in methane emissions over the next decade.

The EPA also operates several partnership programs that promote cost-effective reductions of methane. As part of the overall strategy to reduce methane, the EPA developed a significantly expanded partnership program, the Natural Gas STAR Methane Challenge, to offer an opportunity for U.S. oil and gas companies to demonstrate additional emission reductions commitments. These actions complement EPA efforts to quantify oil and gas methane emissions, through the U.S. GHG Inventory and the U.S. Greenhouse Gas Reporting Program. Also, the AgSTAR program is a collaboration between the EPA and the U.S. Department of Agriculture that focuses on methane emission reductions from livestock waste management operations through biogas recovery systems, and is working to support the Biogas Opportunities Roadmap highlighted in the White House Strategy to Reduce Methane Emissions. The Coalbed Methane Outreach Program promotes opportunities to profitably recover and use methane emitted from coal mining activities. The Landfill Methane Outreach Program promotes abatement and energy recovery of methane emitted from landfills.

The EPA will continue to promote the use of low global warming potential (GWP) alternatives to hydrofluorocarbons (HFCs) through application of the Significant New Alternatives Policy (SNAP) program. Specifically, the EPA will use authority under section 612 of the Clean Air Act (CAA) to continuously update the SNAP list, as well as to list more environmentally friendly alternatives with lower GWPs, and will continue to review existing SNAP listings to consider whether additional changes to the status of alternatives is appropriate.

The EPA will continue to implement non-regulatory climate change programs that work with key sectors to reduce greenhouse gases and facilitate energy-efficiency improvements. As an example, the ENERGY STAR program helped promote investments in energy-efficient technologies and practices that prevented more than an estimated 300 million metric tons of GHGs, resulting in savings of $34 billion on Americans'

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

annual utility bills in 2014 alone.[5] ENERGY STAR Most Efficient is a recent program innovation to help consumers identify and advance highly efficient products in the marketplace. This effort identifies the most efficient products among those that qualify for the ENERGY STAR recognition in particular product categories. Product categories are selected and recognition criteria established to ensure that products receiving this recognition demonstrate efficiency performance that is truly exceptional, inspirational, or leading edge—consistent with the interests of environmentally-motivated consumers and early adopters. In 2015, EPA finalized ENERGY STAR product specifications across 8 products, including large network equipment for the first time.

The agency also improves ambient air quality through its programs that address criteria pollutants, including ground-level ozone and particulate matter. As required by the CAA, the EPA periodically reviews the National Ambient Air Quality Standards (NAAQS) and the science on which they are based. This past year, the agency strengthened the NAAQS for ground-level ozone to 70 parts per billion (ppb), based on extensive scientific evidence. The updated standards will improve public health protection, particularly for at-risk groups including children, older adults, people of all ages who have lung diseases such as asthma, and people who are active outdoors, especially outdoor workers. The EPA also sets emission standards for industrial categories that cause, or significantly contribute to, air pollution that may endanger public health or welfare.

The EPA's air toxic control programs are critical to continued progress in reducing public health risks and improving the quality of the environment. The 2011 National Air Toxics Assessment (NATA) estimated that the U.S. population at the time of the assessment had an increased cancer risk of 40 in a million due to the inhalation of toxic air pollutants from outdoor sources. The EPA will continue to focus efforts on communities with greater levels of industrial and mobile source activity (e.g., near ports, distribution areas, or large stationary sources, etc.), which can have significant cumulative exposure to air toxics. The air toxics emissions standards must be reviewed every eight years to determine if additional emission control technologies exist, and the EPA has a number of rulemakings underway to propose more effective emission control technologies based on the reviews. This past year the agency finalized a rulemaking to update air toxics standards for petroleum refineries, which included first-ever proposed requirements for fence-line monitoring as a cost-effective means of managing fugitive emissions. This common sense approach allows the agency and local communities to better understand the risks to neighborhoods located near refineries.

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

The EPA continues to implement its non-regulatory indoor air quality programs. Because levels of certain pollutants can be higher indoors than outdoors, and since people spend much of their lives indoors, the quality of indoor air is a major concern.[6] For example, indoor allergens and irritants play a significant role in making asthma worse and triggering asthma attacks. Over 23 million Americans currently have asthma, which annually accounts for over 500,000 hospitalizations, more than 10 million missed school days, and over $50 billion in economic costs.[7] In addition, radon is the leading environmental cause of cancer mortality in North America, causing an estimated 21,000 lung cancer deaths annually in the U.S.[8] From 1990 to 2013, the number of homes with operating mitigation systems increased by more than 700 percent from 175,000 to 1,245,000 homes.

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[5]https://www.energystar.gov/ia/partners/publications/pubdocs/Overview%20of%20Achievements_508Compliant.pdf.
[6] U.S. EPA. 1987. "Project Summary – The Total Exposure Assessment Methodology (TEAM) Study". EPA/600/S6-87/002, Sept. 1987.
[7] Centers for Disease Control and Prevention (2011, May). Asthma in the U.S. Vital Signs. Retrieved from http://cdc.gov/vitalsigns/asthma and http://www.cdc.gov/asthma/nhis/2013/table3-1.htm.
[8] U.S. EPA, 2003. EPA's Assessment of Risks from Radon in Homes. EPA 402-R-03-003. Available at http://www.epa.gov/radiation/docs/assessment/402-r-03-003.pdf.

To address asthma, the EPA recently completed a 10-year effort to build capacity at the national, state and local levels to manage environmental asthma triggers by directly training 45,700 healthcare professionals. During this timeframe, the EPA also has led the federal effort to educate, equip and support community asthma programs across the country to deliver comprehensive asthma care. The EPA has reached an important milestone and enrolled the thousandth program in AsthmaCommunityNetwork.org, a virtual, on-line interactive community for asthma champions to share and more rapidly spread effective program strategies in order to advance asthma care.

The FY 2017 requested level for Addressing Climate Change and Improving Air Quality is $1,132 million, an increase of $68 million over the FY 2016 Enacted Budget.

Major FY 2017 Changes

Goal 1 resources continue to be targeted to address climate change and enhance ongoing air quality and radiation work, building on progress to date to advance priorities in FY 2017. The agency continues to refine its current research focus to maximize its utility to support rulemakings and program delivery.

Address Climate Change

The FY 2017 budget prioritizes climate action and reflects our commitment to implementing the President's Climate Action Plan. The budget request includes resources for critical work across the EPA for the Clean Power Plan (CPP), including a $25M increase for grants to states for CPP work and planning. The broad-based plan will cut greenhouse gas pollution that contributes to climate change and affects public health, and support activities to facilitate necessary adaptation to the impacts of climate change.

The EPA's work supports key elements of the Climate Action Plan including:

- Cutting carbon (CO_2) pollution from new and existing power plants
- Cutting carbon pollution (methane) from the oil and natural gas, and landfills source sectors
- Establishing CO_2 emission standards and supporting increased fuel economy standards for heavy-duty vehicles
- Cutting energy waste in homes, businesses, and factories
- Reducing HFC use and emissions
- Preparing the country to address the impacts of climate change
- Leading international efforts to address climate change, including supporting efforts to control HFCs under the Montreal Protocol
- Integrating climate adaptation planning into programs, policies, rules, and operations.

Power plants are the largest source of carbon dioxide emissions in the United States, making up roughly one-third of all domestic GHG emissions. On August 3, 2015, the EPA finalized the Clean Power Plan, which will establish carbon pollution standards for existing power plants. The Clean Power Plan provides states with significant flexibility to tailor their carbon pollution reduction plans to their own unique circumstances using a variety of approaches, such as energy efficiency and renewable energy measures, as well as multi-state plans that build on cooperation and innovation. As a result, state plan development, review and approval will be complex. In FY 2017, the agency will focus resources to support states as they begin to implement or, in some cases, finalize their plans. Resources will be focused both in the regional offices to provide tailored, state-specific assistance and in headquarters where technical experts will develop guidance and other resources that are sector-wide in scope and address questions that affect overall implementation of the plan. In FY 2017, implementation of updates to the oil and natural gas rules will reduce GHG emissions—primarily methane—from new and modified processes and equipment in the oil and gas industry, and achieve additional emission reductions of volatile organic compound (VOC) pollution from these sources.

In FY 2016, consistent with the President's Climate Action Plan, the EPA plans to finalize a second phase of GHG standards for post Model Year 2018 medium- and heavy-duty vehicles, offering further opportunities to reduce emissions, decrease the nation's oil use, and benefit consumers and businesses by reducing the cost of transporting goods while spurring job growth and innovation in the clean energy technology sector. The agency also committed to perform, in coordination with NHTSA and the California Air Resources Board (CARB), a Midterm Evaluation of the Model Year 2022-2025 light-duty GHG standards.[9] To support the Midterm Evaluation, in FY 2017 the agency is performing a comprehensive feasibility evaluation of advanced technologies. This evaluation will support the agency strategy to advance the use of evidence in decision-making.

Improve Air Quality

In FY 2017, the agency will continue to focus on addressing regulatory implementation across the air program. The EPA will continue to administer the National Ambient Air Quality Standards (NAAQS) by taking federal oversight actions, when necessary, and by developing guidance for use by state, tribal, and local air agencies to ensure continued health and welfare protection.

National standards have a big impact on the quality of life in local communities. In FY 2017, the agency also continues a strong emphasis on supporting communities in their efforts to combat localized effects of air pollution. Communities do not always have sufficient air quality data at the local level to understand and act upon existing risks. In FY 2017, the EPA will continue to develop advanced monitoring technical support and tools to help communities detect, monitor, understand, and act upon their local air quality issues.

Research: Air, Climate and Energy

In FY 2017, the EPA is investing $1.6 million to focus on understanding and preventing potential impacts on air quality. This research will assist decision makers (federal, state, Tribal, and local; industry and energy sectors; and the public) in making environmentally responsible energy extraction and processing decisions. In addition, in FY 2017 the EPA is investing $3 million for research to study the environmental and resource conservation impacts of clean fuels use on air and water quality, soil quality and conservation, water availability, ecosystem health and biodiversity, invasive species, and on the international environment.

Agency Priority Goals

As part of the EPA's FY 2014-2018 Strategic Plan, the EPA established FY 2014-2015 Agency Priority Goals (APGs). The agency met all of the milestones and targets under its FY 2014-2015 APG to reduce greenhouse gas emissions from cars and trucks. For FY 2016-2017, the updated Goal 1 APG highlights the EPA's continued efforts to reduce greenhouse gas emissions from cars and trucks as follows:

Reduce GHG emissions from vehicles and trucks. Through September 30, 2017, EPA, in coordination with Department of Transportation's fuel economy and fuel consumption standards programs, will implement vehicle and commercial truck greenhouse gas standards with a focus on industry compliance to ensure the significant reductions in greenhouse gases and oil consumption called for under the standards are realized. The light-duty and heavy-duty standards for model years 2012-2025 are projected to reduce greenhouse gas (GHG) emissions by more than 6.3 billion metric tons and reduce U.S. oil consumption by over 12.5 billion barrels over the lifetime of the affected vehicles and commercial trucks.

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

[9] For additional information, please see the following website: http://www.epa.gov/otaq/climate/mte.htm.

FY 2017 Activities

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

Climate change poses risks to public health, the environment, cultural resources, the economy, and quality of life. Impacts of climate change are already evident and will intensify in the future. The National Oceanic and Atmospheric Administration (NOAA) and National Aeronautics and Space Administration (NASA) announced on January 16, 2015, that 2014 was the hottest year on record and data indicates 2015 has met or surpassed that mark. The EPA's strategy to address climate change supports the President's GHG reduction goals and the agency's budget includes $210.0 million to support regulatory activities and partnership programs to reduce GHG emissions domestically and internationally. In FY 2017, the agency will focus on a number of significant activities including:

- Working with states to implement the Clean Power Plan carbon dioxide (CO_2) emission standards for existing power plants, including technical assistance and funding to support development of state plans.
- Implementing a second phase of heavy-duty vehicle GHG regulations that incorporates a wider range of advanced technologies, including hybrid vehicle drive trains, and also exploring options to reduce emissions from a wide range of nonroad equipment, locomotives, aircraft, and transportation fuels.
- Prioritizing and reviewing low GWP options for use in consumer and industrial use sectors under SNAP, while considering existing listings that may require reassessment based on the advent of new, more environmentally friendly options. Work in FY 2017 will involve continued SNAP listings, rulemakings, and technical support for stakeholders and innovative firms with new alternatives. There also may be activities related to the Montreal Protocol amendment.
- Working with stakeholders to implement the requirements of the EPA's NSPS and National Emission Standards for Hazardous Air Pollutants (NESHAP) to reduce emissions of GHG from the oil and gas industry.
- Supporting reporting and verification in the GHG Reporting Program of emissions across 41 industry sectors and emission sources and approximately 8,000 reporters.
- Leading the Global Methane Initiative (GMI) and more closely aligning the work of GMI with other multilateral efforts, such as the Climate and Clean Air Coalition to Reduce Short Lived Climate Pollutants, to facilitate more effective and efficient global methane reduction efforts and deliver clean energy to markets.
- Implementing the ENERGY STAR program and other greenhouse gas reduction partnership programs such as SmartWay Transport across the residential, commercial, industrial, and transportation sectors. The EPA will have up to 20 product specifications underway, as well as a major update to the 1-100 ENERGY STAR scores for commercial buildings.
- Continuing to implement the new Renewable Fuel Standards (RFS2) program and carrying out other actions required by the Energy Policy Act (EPAct) of 2005 and the Energy Independence and Security Act (EISA) of 2007.
- Supporting implementation and compliance with GHG emission standards for light-duty and heavy-duty vehicles and the NHTSA CAFE standards. Under the CAA and the Energy Policy Act, the EPA is responsible for issuing certificates and ensuring compliance with both the GHG and CAFE standards.
- Supporting activities related to the finding that GHG emissions from certain classes of engines used in aircraft contribute to air pollution that causes climate change and endangers public health and welfare. The EPA will develop domestic proposed CO_2 standards for consideration based on the finding. Additionally, working with the Federal Aviation Administration (FAA), the EPA will continue working with the International Civil Aviation Organization (ICAO) on international CO_2 standards for aircraft.

In FY 2017, the EPA will continue to build and strengthen the capacity of states, tribes, and local communities to anticipate, prepare for, and adapt to a changing climate. A central element of this effort focuses on supporting climate-resilient investments across the nation. This is consistent with directives in

Executive Order 13653 ("Preparing the United States for the Impacts of Climate Change"). In FY 2017, the EPA will ensure that a cumulative number of 120 state, tribal, and community partners have integrated climate change data, models, information, and other decision-support tools developed by the EPA for climate change adaptation into their planning processes; and, that 100 state, tribal, and community partners have incorporated climate change adaptation into the implementation of their environmental programs supported by major EPA financial mechanisms (grants, loans, contracts, and technical assistance agreements). The goal of these efforts is to ensure continued protection of human health and the environment even as the climate changes, and to empower states, tribes, and local communities to increase their resilience and prepare for the impacts of climate change.

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

Clean Air

In FY 2017, the EPA will continue its CAA-prescribed responsibilities to administer the NAAQS. The NAAQS help improve air quality and reduce related health and welfare impacts and their costs to the nation. The EPA will continue to implement a strategy that, where appropriate, supports the development and evaluation of multiple pollutant measurements.

In FY 2017, the EPA will continue its reviews of the NAAQS in accordance with the statutory mandate to review the standards every five years and make revisions, as appropriate. The EPA will provide technical and policy assistance to states and tribes developing or revising attainment State Implementation Plans (SIPs) and Tribal Implementation Plans (TIPs) and will designate areas as attainment or nonattainment, as appropriate. The agency also will continue efforts to reduce the number of backlogged SIPs and to act on incoming SIPs within the CAAA-mandated timeframe.

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

In conjunction with EPA’s standards to cut carbon pollution and improve air quality, the President's 21st Century Clean Transportation Plan proposes to establish a mandatory fund at EPA that will accelerate the transition to cleaner vehicle fleets, focusing on school bus upgrades that improve children’s health. The new fund will renew and increase funding for the DERA Grant Program, which is set to expire in 2016.

The EPA will also continue to target its traditional discretionary funding for areas that suffer from poor air quality and will focus on projects that engage local communities and provide lasting benefits. The EPA is especially interested in working with port communities and has adjusted its national RFP to prioritize projects that reduce emissions from engines involved in goods movements and freight industries. The EPA also plans to continue to offer rebate funding and focus on fleet turnover for engines that pre-date the EPA’s on-highway standards for PM (model year 2006 or older).

In FY 2017, the EPA will use its upgraded vehicle, engine, and fuel testing capabilities at the National Vehicle and Fuel Emissions Laboratory (NVFEL) to increase testing and certification capacity to ensure that new vehicles, engines, and fuels are in compliance with new vehicle and fuel standards and to conduct aggressive testing to identify the use of defeat devices. The agency is responsible for

establishing test procedures to estimate the fuel economy of new vehicles and for verifying car manufacturers' data on fuel economy. The EPA anticipates reviewing and approving approximately 5,000 vehicle and engine emissions certification requests – a workload that has quadrupled over the past decade. The testing will screen for defeat devices and other emissions problems in both new and in-use vehicles and engines. The EPA uses in-use emissions data provided by light-duty vehicle manufacturers as a means to measure compliance and determine if any follow-up evaluation or testing is necessary. The NVFEL's workload will continue to grow as the lab begins to implement new, and more stringent, GHG emission standards for additional classes of vehicles and engines.

Air Toxics

The agency will continue to work with state, tribal, and local air pollution control agencies and community groups to assess and address air toxics emissions in areas of greatest concern. One of the top priorities for the air toxics program is to eliminate unacceptable health risks and exposures to air toxics in affected communities and to fulfill its CAAA and court-ordered obligations. The CAAA requires that all technology-based emission standards be reviewed and updated as necessary every eight years. In FY 2017, the EPA will continue to conduct technology reviews and risk assessments to determine whether the technology-based rules appropriately protect public health to comply with legal deadlines.

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

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

Indoor Air

In 2017, the EPA will continue to leverage public and private systems to drive policies, interventions, and individual actions that increase healthy indoor air where people live, learn and work. The agency will build the capacity of an additional 300 community-based organizations to support the delivery, infrastructure, and sustainable financing of environmental asthma interventions at home and school. Strong evidence indicates that many chronic health conditions like asthma disproportionately affect low income, minority, and tribal communities. Environmental pollutants in homes and schools can cause and exacerbate asthma. Further evidence indicates that investment in home and school interventions will improve health outcomes and reduce and/or shift health care costs from medical treatment to secondary prevention. Approximately one half of our nation's schools now have indoor air quality (IAQ) management programs in place, helping to ensure healthy school environments and the EPA will continue to promote the adoption of IAQ management programs to reach the remaining 60,000 schools. The EPA will continue to co-lead the implementation of the Coordinated Federal Action Plan to Reduce Racial and Ethnic Asthma Disparities, an initiative under the auspices of the President's Task Force on Environmental Health Risks and Safety Risks to Children.

The EPA will deliver clear and verifiable protocols and specifications to ensure good indoor air quality in homes and schools. This effort will be accomplished through the Indoor airPLUS program for new homes and protocols that protect IAQ during energy upgrades in existing single-and multi-family homes and schools. The EPA will collaborate with public and private organizations to integrate these protocols and specifications into existing energy-efficiency, green-building and health-related programs and initiatives.

In FY 2017, the EPA will continue its leadership role and collaborate with other federal agencies to reduce risks from radon through the National Radon Action Plan, a public-private partnership that includes multiple non-profit radon and public health organizations, and will continue to implement its own multi-pronged radon program. The EPA will drive action at the national level to reduce radon risk in homes and schools using partnerships with other federal agencies, the private sector and public health groups, public outreach, and education activities. The agency will encourage radon risk reduction as a normal part of doing business in the real estate marketplace, will promote local and state adoption of radon prevention standards in building codes, and will participate in the development of national voluntary standards (e.g., mitigation and construction protocols) for adoption by states and the radon industry.

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

Restore the Ozone Layer

The stratospheric ozone program implements the provisions of the CAAA and the *Montreal Protocol on Substances that Deplete the Ozone Layer* (Montreal Protocol). Under the CAAA and the Montreal Protocol, the EPA is authorized to control and reduce ozone depleting substances (ODS) in the U.S., and to contribute to the Montreal Protocol Multilateral Fund. As of January 1, 2015, ODS production and imports was capped at 1,524 ODP-weighted metric tons, which is 10 percent of the U.S. baseline under the Montreal Protocol (ODP weighted means that the metric tons of different substances are weighted by ozone depleting potential). In 2020, all production and import will be phased out except for exempted amounts. As ODS and many of their substitutes are potent GHGs, appropriate control and reduction of these substances also provides significant benefits for climate protection. As a signatory to the Montreal Protocol, the U.S. is committed to ensuring that our domestic program is at least as stringent as international obligations and to regulating and enforcing its terms domestically. In FY 2017, the EPA will focus its work to ensure that ODS production and import caps under the Montreal Protocol and CAAA continue to be met.

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

In FY 2017, the EPA's Radiation program, in cooperation with federal agencies, states, tribes, and international radiation protection organizations, will develop and use voluntary and regulatory programs, public information, and training to protect the public from unnecessary exposures to radiation. The EPA expects to complete its review of the public comments and move toward a final rule in 2017 on the revisions to the agency's Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings (40 CFR 192), last reviewed in 1995. The agency also will work to ensure that the nation has broad-based, non-site-specific standards that protect public health and the environment from risks associated with subsurface disposal of high-level radioactive waste.

The EPA's Radiological Emergency Response Team will maintain the level of readiness to support federal radiological emergency response and recovery operations under the National Response Framework and the National Oil and Hazardous Substances Pollution Contingency Plan in FY 2017. RadNet, the agency's national ambient radiation air monitoring system, will continue to provide data from 135 locations in the United States and Puerto Rico to assist in protective action determinations. The EPA will continue to support waste site characterization and clean-up by providing field and fixed laboratory environmental radioanalytical data and technical support, delivering radioanalytical training to state and federal partners, and developing improved radioanalytical methods.

In FY 2017, the EPA will continue to implement its regulatory oversight responsibilities for Department of Energy (DOE) activities at the Waste Isolation Pilot Plant (WIPP) facility, as mandated by Congress in the WIPP Land Withdrawal Act of 1992. This includes conducting inspections of waste generator facilities and evaluating DOE's compliance with the EPA's standards and applicable environmental laws and regulations to ensure the permanent and safe disposal of all radioactive waste shipped to WIPP.

Research

Improvements in air pollution, made over the past 45 years, are being threatened by climate change and complicated by rapidly changing energy technologies, which have both benefits and potential adverse effects. The EPA's Air, Climate and Energy (ACE) research program integrates air and climate science to gain a better understanding of how energy science and engineering interconnect. The ACE research program includes numerous stakeholders in the process—the EPA's regional and program offices, states and communities—that rely on the EPA's research.

The EPA's Air, Climate and Energy research program, funded at $101.2 million for FY 2017, provides cutting-edge scientific information and tools to support EPA's strategic goals of protecting and improving air quality and addressing climate change and to assist communities and decision makers at all levels of government to make the best decisions. Human exposure to an evolving array of air pollutants is a considerable challenge. By integrating air, climate, and energy research, the EPA can better understand, define, and address the complexity of these interactions.

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

Research Objective 1: Assess Impacts – Assess human and ecosystem exposures and effects associated with air pollutants and climate change at individual, community, regional and global scales. For example, the EPA will study the cardiovascular and respiratory effects associated with exposures to pollutant mixtures and will investigate what factors, such as disease, genetics and social factors, impact susceptibility to these health impacts.

Research Objective 2: Prevent and Reduce Emissions – Provide data and tools to develop and evaluate approaches to prevent and reduce emissions of pollutants into the atmosphere, particularly environmentally sustainable, cost-effective, and innovative multipollutant and sector-based approaches. For example, the EPA is developing a prototype testing platform for sensor evaluation and the development of community-targeted tools for the use and interpretation of air sensor data.

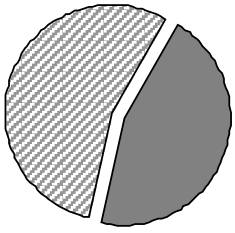
Research Objective 3: Prepare for and Respond to Changes in Climate and Air Quality – Provide human exposure and environmental modeling, monitoring, metrics, and information needed by individuals, communities, and governmental agencies to take action to prepare for and mitigate the impacts of climate change, and make public health decisions regarding air quality. For example, the EPA also will develop and apply computational tools for analyses of potential co-benefits and trade-offs of various future energy scenarios and air quality management practices in a changing climate.

In FY 2017, research devoted to unconventional oil and gas activities will focus on understanding and preventing potential impacts on air quality. This research will assist decision makers (federal, state, Tribal, and local; industry and energy sectors; and the public) in making environmentally responsible energy extraction and processing decisions. This work aligns with a Memorandum of Agreement (MOA) between the EPA, Department of Energy (DOE) and the Department of the Interior (DOI) to develop a multi-agency program to focus on timely, policy relevant science to support sound policy decisions by state and federal agencies for ensuring the prudent development of energy sources while protecting human health and the environment. Additional goals include minimizing potential risks in developing these resources, maximizing each agency's particular strength, and reducing interagency overlap. Also, as part of the MOA, the EPA's Safe and Sustainable Water Resources (SSWR) research program will undertake a coordinated effort to study the potential impacts of hydraulic fracturing on water quality and ecosystems.

In addition, in FY 2017 the EPA is investing $3 million for research to study the environmental and resource conservation impacts of clean fuels use on air and water quality, soil quality and conservation. The research also will consider water availability, ecosystem health and biodiversity, invasive species, and impacts on the international environment.

Goal 2: Protecting America's Waters

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



45.3% of Budget

Resource Summary

(Dollars in Thousands)

	FY 2015 Enacted	FY 2016 Enacted	FY 2017 President's Budget	Difference FY 2016 EN to FY 2017 PresBud
1 - Protect Human Health	$1,268,812	$1,226,817	$1,389,162	$162,345
2 - Protect and Restore Watersheds and Aquatic Ecosystems	$2,784,487	$2,753,939	$2,356,702	($397,237)
Goal 2 Total	**$4,053,298**	**$3,980,755**	**$3,745,864**	**($234,891)**
Workyears	3,161	3,161	3,168	7

NOTE: Numbers may not add due to rounding.

Introduction

As we work to protect the nation's water, innovative approaches and effective partnerships are needed to make and sustain improvements. While much progress in water quality has been made over the last two decades, America's waters remain imperiled. Increased demands, poorly managed land use practices, population growth, aging infrastructure, and the impacts of a changing climate pose serious challenges to our nation's water resources. The National Coastal Condition Report IV shows that although improvement has taken place since 1990, the overall condition of the nation's coastal resources continues to be rated fair.[1] In addition, the latest national assessments[2] confirm that America's waters are stressed by nutrient pollution, excess sedimentation, and degradation of shoreline vegetation, which affect more than 50 percent of our lakes and streams. The rate at which new waters are listed for water quality impairments exceeds the pace at which restored waters are removed from the list. For many years, nonpoint source pollution—principally nitrogen, phosphorus, and sediments—has been recognized as the largest remaining impediment to improving water quality, and it is difficult to address the varied and widespread sources of this pollution. In addition, pollution discharged from industrial, municipal, and other point sources continues to cause a decline in the quality of water in many areas. Other significant contributors

[1] U.S. EPA. 2012. *National Coastal Condition Report IV.* EPA-842-R-10-003. Available at http://water.epa.gov/type/oceb/assessmonitor/nccr/upload/NCCR4-Report.pdf.

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

to degraded water quality include: loss of habitat; habitat fragmentation; and changes in the way water is infiltrated into soils, runs off the land, and flows down streams (hydrologic alteration).

We no longer rely solely on traditional tools and approaches to protect our waters in urban and rural settings. We are developing new targeting tools, promoting green infrastructure and sustainable solutions, and building resiliency to deal with the impacts from climate change. We also are strengthening our partnerships with federal agencies, non-governmental organizations and private companies committed to supporting local efforts to improve and protect waterways. From nutrient loadings and polluted stormwater runoff, to invasive species, energy extraction, and drinking water contaminants, water quality programs face complex challenges that can be addressed effectively only through a combination of traditional and innovative strategies. The EPA will continue to work hand-in-hand with states and tribes to develop and implement nutrient limits and intensify our work to restore and protect the quality of the nation's streams, rivers, lakes, bays, oceans, and aquifers. We will continue the increased focus on urban and rural communities, particularly those disadvantaged communities facing disproportionate impacts, or that have been historically underserved. We also work together with our partners to protect and restore threatened natural treasures such as the Great Lakes, the Chesapeake Bay, the Gulf of Mexico, and the Puget Sound; address our neglected urban rivers; ensure safe drinking water; and reduce pollution from nonpoint and industrial discharges. The EPA will continue to address post-construction runoff, water-quality impairments from surface mining, and drinking water contamination. The EPA's Water Technology Innovation blueprint frames the business case for and provides examples of innovation across the water sector.[3]

As part of the agency's long-term strategy, the EPA is implementing a Sustainable Water Infrastructure Policy[4] that focuses on working with states and communities to significantly expand more effective management and enhance technical, managerial and financial capacity within the drinking water and wastewater sectors. The agency will continue to promote capacity building, small system partnerships, and full-cost pricing, which all have the potential to reduce the long-term need for water infrastructure investment. Important to enhancing the technical capacity of the water sector, the EPA will utilize alternatives analyses to expand green infrastructure options and their multiple benefits. Implementation of the Water Infrastructure Finance Innovation Act program (WIFIA), federal dollars provided through the State Revolving Funds (SRFs) and support from the Water Infrastructure and Resiliency Finance Center (WIRFC) and the Center for Environmental Finance (CEF) will act as catalysts for efficient system-wide planning and ongoing management of sustainable water infrastructure.

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

Goal 2 resources include $3.746 billion and 3,168 FTE. Resources and FTE have been targeted to build on progress to date and advance the agency priorities in FY 2017. Funding for the categorical grants to states and tribes to support core environmental programs in Goal 2 is $549 million. In FY 2017, the agency is requesting $2 billion for the Clean Water and Drinking Water State Revolving Funds (SRFs), a reduction of approximately $257 million from the FY 2016 operating level.

Major FY 2017 Changes

Water Infrastructure Finance and Innovation Act (WIFIA) Program

The Water Infrastructure Finance and Innovation Act of 2014 (WIFIA) authorized an innovative financing mechanism for water-related infrastructure of national or regional significance and authorized the EPA to

[3] U.S. EPA.2014.Promoting Technology Innovation for Clean and Safe Water. EPA 820-R-14-006. Available at http://www2.epa.gov/innovation/watertech.
[4] http://water.epa.gov/infrastructure/sustain/upload/Sustainability-Policy.pdf.

provide federal credit assistance to eligible entities. The FY 2017 budget requests $20 million to begin issuing loans under the new WIFIA program, offering another tool in support of drinking water and wastewater infrastructure projects. WIFIA will supplement the existing State Revolving Fund programs, helping to meet the United States' water infrastructure needs and address key priorities. The WIFIA program will accelerate investment in our nation's infrastructure by providing supplemental credit assistance, in the form of direct loans, to innovative credit-worthy projects. In FY 2016 and 2017, EPA will continue the significant work of developing and starting up the WIFIA program, including proposing regulations outlining the credit program. Of the total request level, $15 million in credit subsidy translates into a potential loan capacity of nearly $1 billion to eligible entities for infrastructure projects with the initial loans taking place in FY 2017.

Drinking Water Programs

The FY 2017 budget proposes to increase funding for Drinking Water Programs by over $12 million to expand the technical, managerial, and financial capabilities of drinking water systems to reliably provide safe drinking water to their customers now and into the future. This investment is designed to promote economic growth through innovative financing, techniques such as system partnerships, capacity building, full cost pricing, and public and private collaboration. These initiatives all have the potential to reduce the long-term need for water infrastructure investment and will complement the successful state revolving fund programs.

Public Water System Supervision Grants

The EPA is requesting a $7.7 million increase to focus on a variety of strategies that will specifically address challenges public water systems are facing today that impede their ability to achieve long-term sustainability. These challenges include lack of managerial capacity, significant water loss due to pipe failures in distribution systems, and climate change threats to the quality and quantity of drinking water sources. Additional resources will allow the EPA to increase training and technical assistance to enhance the skills of system personnel in the areas of source water protection, financial planning, asset management, and implementation of sustainable practices such as water loss and conservation to protect the infrastructure investments.

Clean Water and Drinking Water SRFs

The Administration has strongly supported the SRFs. To date, federal capitalization totals over $22 billion since 2009. Since their inception, the SRFs have been funded at over $62 billion. In FY 2017, the agency's budget includes $2 billion for the SRFs, a decrease of $257 million in funding from FY 2016 Enacted levels. The budget provides $1,020.5 million for the Drinking Water SRF and $979.5 million for the Clean Water SRF. For the Clean Water SRF, the Administration strongly supports efforts to expand the use of green infrastructure to meet Clean Water Act goals. To further these efforts, the budget targets 20 percent of the Clean Water SRF capitalization grants, subject to project availability, to green infrastructure and innovative projects including those to manage stormwater, which helps communities improve water quality while creating green space, mitigating flooding, and enhancing air quality.

Surface Water Protection

The FY 2017 budget proposes to increase funding for Surface Water Protection by approximately $28 million. This includes increased funds to support the EPA's infrastructure initiatives. In FY 2017, the agency will invest in the Water Infrastructure and Resiliency Finance Center and integrated planning. The Water Infrastructure and Resiliency Finance Center, established as part of the President's Build America Investment Initiative, will work to provide objective financial technical guidance and help stakeholders find solutions to financing water infrastructure projects. The FY 2017 request maintains the agency's effort to help communities find cost effective approaches to meeting water infrastructure needs.

In addition to supporting water infrastructure needs, the FY 2017 budget continues to support the following core Surface Water Protection program components: water quality standards and technology;

National Pollutant Discharge Elimination System (NPDES); water monitoring; Total Maximum Daily Loads (TMDLs); watershed and nonpoint source management ; sustainable infrastructure management; water infrastructure grants management; and Clean Water Act Section 106 program management.

Research: Safe and Sustainable Water Resources

The FY 2017 budget proposes an increase of $2.2 million for new hydraulic fracturing research to focus on understanding and preventing potential impacts on water quality and ecosystems. This research will continue to assist decision makers (federal, state, Tribal, and local; industry and energy sectors; and the public) in making environmentally-responsible energy extraction and processing decisions.

Agency Priority Goals

In FY 2017, the EPA will continue to build on progress under FY 2014-2015 Agency Priority Goals for the National Water Program that advance agency priorities and the agency's Strategic Plan. In FY 2015, the EPA met the small drinking water system priority goal in the FY 2014-2018 Strategic Plan to have additional states and tribes improve system capacity:

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

The EPA also met the FY 2014-2015 priority goal for nonpoint source programs:

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

The EPA's FY 2016-2017 Priority Goal to improve water quality is:

- ***Advance resilience in the nation's water infrastructure, while protecting public health and the environment, particularly in high-risk and vulnerable communities.*** By September 30, 2017, EPA will provide technical assistance and other tools to 25 urban communities to advance green infrastructure planning and implementation efforts to increase local climate resilience and water quality protections in stormwater infrastructure. EPA also will provide tools and training for 1,000 operators of small water utilities to improve resilience in drinking water, wastewater, and stormwater systems. Trainings will be targeted based on regional threats, such as drought and flooding.

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

FY 2017 Activities

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

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

Drinking Water

In FY 2017, the EPA will continue to implement its Drinking Water Strategy, an approach to expanding public health protection for drinking water. The EPA's goal is to streamline decision-making, expand

protection under existing laws, and promote cost-effective new technologies to meet the needs of rural, urban and other water-stressed communities. The agency will focus on regulating groups of drinking water contaminants, improving water treatment technology and expanding communication with states, tribes and urban and rural communities.

In FY 2017, the EPA will continue to provide Public Water System Supervision grants to support state and tribal efforts to assist water systems in meeting existing drinking water regulations and implementing the new Revised Total Coliform Rule. States and tribes will work to support systems to acquire and maintain basic implementation capabilities and to conduct sanitary surveys according to required schedules. The EPA will build on current efforts to identify, prevent, and protect drinking water from known and emerging contaminants that potentially endanger public health. All these activities help address health based violations, water supply shortages and provide operational efficiencies that protect the nation's infrastructure investment. These resources also assist states and tribes in providing technical assistance and training to help meet the continued needs of small water systems. In FY 2015, 91 percent of the population served by community water systems received drinking water that met all applicable health-based drinking water standards, just under the performance target of 92 percent. The additional funding requested will reinvigorate training and technical assistance activities to support regulatory compliance. These activities may include training on basic requirements as well as more advanced treatment and operational issues. The EPA will work with both primacy agencies and water stakeholders to identify specific training needs and potential solutions to compliance-related problems regarding these regulations.

To help ensure water is safe to drink and to address the nation's aging drinking water infrastructure, $1,020.5 million for the Drinking Water State Revolving Fund will support new infrastructure improvement projects for public drinking water systems in FY 2017 and beyond. Getting these funds to where they are most needed in a timely manner is important. In FY 2017, appropriated DWSRF funds will again be allocated to the states in accordance with each state's proportion of total drinking water infrastructure need based on the 2011 Needs Survey, which was reported to Congress in April 2013.[5]

The EPA also published data concerning the drinking water infrastructure needs of water systems serving tribes and Alaska Native Villages as a special focus of this survey. As directed by the SDWA, the EPA uses the results of the survey to set the state DWSRF allocations every four years. The EPA will be analyzing the results of the 2015 Needs Survey, which will be reported in FY 2017 and applied to the allocation of the state DWSRF grants beginning in FY 2018. This survey will support the agency strategy to advance the use of evidence in decision-making by providing a valuable new dataset

DWSRF funds have been utilized effectively by the states. Since FY 2006, the DWSRF funds utilization rate[6] has surpassed its performance target. In FY 2015, the DWSRF 94 percent utilization rate exceeded the EPA's target of 89 percent. In concert with the states, the EPA will focus this affordable, flexible financial assistance to support utility compliance with safe drinking water standards. The EPA continues to request a funding floor for assistance provided to tribes, and will reserve the greater of $20 million or 2% of appropriated funds for the Indian Tribes and Alaska Native Villages. The EPA also will work with utilities to promote technical, financial, and managerial capacity as a critical means to meeting infrastructure needs and enhancing program performance and efficiency.

The responsibility for communities and public water systems to continuously provide safe drinking water is a key component of the nation's health and well-being. The delivery of safe drinking water is often taken for granted and is frequently undervalued, which presents considerable challenges to the completion of infrastructure upgrades that are necessary to protect public health. More than 156,000 public water systems provide drinking water to the approximately 320 million people in the U.S. More than 97% of

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

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

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

The EPA is focusing attention on the needs of these small communities/systems as the state grant and state assistance programs are implemented. In FY 2012, the EPA re-energized its small systems focus by working more closely with state programs to improve public water system sustainability and public health protection for people served by small water systems as part of an Agency Priority Goal. In FY 2017, the EPA will continue to build on its successful efforts to strengthen small system technical, managerial and financial capability through the implementation of the Capacity Development Program, the Operator Certification Program, the Public Water System Supervision state grant program and the Drinking Water State Revolving Fund. The Capacity Development Program establishes a framework within which states and water systems can work together to help these small systems achieve the Safe Drinking Water Act's public health protection objectives. The state Capacity Development programs are supported federally by the Public Water System Supervision state grant funds and the set-asides established in the Drinking Water State Revolving Fund. Since the 1996 SDWA amendments, states have implemented a variety of activities to assist small systems with their compliance challenges and enhance their technical, managerial, and financial capacity. In FY 2017, the EPA will continue to reinforce with states and tribes the concepts developed during implementation of the FY 2010-2013 and FY 2014-2015 drinking water Agency Priority Goal activities.

Fish Consumption

The EPA continues to increase public awareness of the risks to human health associated with the consumption of fish contaminated with mercury, an effort directly linked to the agency's mission to protect human health. The EPA's analysis of data from the Centers for Disease Control and Prevention's National Health and Nutrition Examination Survey (NHANES) shows that the number of women of childbearing age with blood levels of mercury above the level of concern decreased 75 percent between the first continuous data NHANES cycle (1999-2000) and the cycle that was reported in FY 2015.[7] The data do not indicate that women are consuming less fish; instead, the analysis suggests that women have reduced their consumption of the types of fish that have higher mercury concentrations. Also, the EPA used NHANES data to increase the default national fish consumption rate for the general population for inclusion in its revised human health criteria for water quality standards in FY 2015.

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

Clean Water

In FY 2017, the EPA will continue to collaborate with states and tribes to make progress toward the EPA's clean water goals. Programs for controlling nonpoint sources of pollution are a key to reducing the number of impaired waters nationwide. The programs provide a multi-faceted approach to the problem, using innovative strategies to help leverage traditional tools. The EPA will support states, tribes, other federal agencies, and local communities to develop watershed-based plans to achieve water quality standards. Working with states, the revolving fund capitalization grants will help build, revive, and "green" our aging infrastructure. In FY 2017, funding in categorical grants for clean water programs will enable the EPA, states, and tribes to implement core clean water programs and promising innovations on a watershed basis to accelerate water quality improvements.

[7] Additional information can be found at the following location: http://www.epa.gov/fish-tech/reports-and-fact-sheets-about-fish-consumption-and-human-health.

In FY 2017, the EPA will begin to fund WIFIA projects. The EPA expects that entities with large-scale, complex water and wastewater projects will be attracted to WIFIA, though the EPA will work to provide assistance to a diverse set of projects. WIFIA funded projects will support both objectives: Protecting Human Health and Protecting and Restoring Watersheds and Aquatic systems. WIFIA creates a five-year pilot program for water infrastructure investment and provides low-interest loans or loan guarantees to eligible entities for large water and wastewater projects. In addition to the existing State Revolving Fund programs, WIFIA will provide an additional source of low cost capital to help meet the water infrastructure needs and address key priorities.

In FY 2017, the EPA will continue to forge and strengthen strategic partnerships with other federal agency programs, in particular with the USDA's Natural Resources Conservation Service, which implements Farm Bill conservation programs that can help control nonpoint source pollution. Agricultural sources of pollution in the form of animal waste, fertilizer, and sediments have a profound effect on water quality. To further accelerate the reduction of nonpoint source pollution, the EPA and the USDA continue to enhance coordination to achieve improvements in water quality by targeting resources and helping landowners implement voluntary stewardship practices in 184 small watersheds nationwide in at least one watershed in every state. State water quality agencies are conducting in-stream monitoring in a subset of approximately 60 of these watersheds.

Building on over 30 years of clean water successes, the EPA, in conjunction with states and tribes, will address the requirements of the Clean Water Act by focusing on two primary tools: Total Maximum Daily Loads[8] and National Pollutant Discharge Elimination System permits, built upon scientifically sound water quality standards and technology-based pollutant discharge limits. In FY 2017, the CWA 303(d) listing of impaired waters and TMDL programs will continue to engage with states to implement the 10-year vision for the program.[9] As part of this effort, the EPA will continue to encourage states to engage with the public and stakeholders on their priorities, identify opportunities to integrate CWA 303(d) Program priorities with other water quality programs (e.g., state water quality standards, monitoring, CWA 319 (nonpoint source), NPDES, source water protection, and conservation programs) to achieve overall water quality goals and complete TMDLs and other restoration plans to address impaired segments. The EPA will work with states and other partners to develop and implement activities and watershed plans to restore their impaired waters.

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

Also, the EPA will continue to work with states to structure the permit program to better support comprehensive protection of water quality on a waterbody and a watershed basis. Progress has been steady in improving water quality conditions in impaired watersheds nationwide. Reductions in nutrient levels in sources of drinking water reduce treatment costs while strengthening public health protection. In 2008, there were only 60 watersheds that experienced improved water quality conditions, as identified by removal of one or more causes of impairment in 2002. By FY 2015, this number had risen to 450 watersheds, exceeding the performance target of 446. However, water quality conditions still remain a significant challenge, with approximately 43,000 known impaired water bodies nationwide at the end of calendar year 2015. In FY 2017, the EPA will continue to work with states to transition to the new approach developed in partnership with states to allow more efficient and transparent reporting under CWA Sections 303(d) and 305(b). This approach will use the USGS National Hydrography Dataset Plus

[8] For more information, visit: http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/index.cfm.
[9] For more information, visit: http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/programvision.cfm.

to calculate watershed area to describe previously impaired waters where actions are being implemented and are now attaining water quality standards. This more efficient approach also will strengthen evidence-based decision-making within the agency through the use of improved reporting and collaboration

In addition, in FY 2017, the EPA will focus on: promoting the use of green infrastructure and water quality-based effluent limits in stormwater permits; controlling discharges from concentrated animal feeding operations; and addressing issues of permitting for new waste streams, such as shale gas extraction, and steam electric power plants. To combat polluted stormwater as a main contributor of nutrients and sediments, the agency issued a final 2012 NPDES general permit for stormwater discharges from large and small construction activities. The general permit strengthens requirements for stormwater discharges from, at a minimum, eligible existing and new construction projects in all areas of the country where the EPA is the NPDES permitting authority.

The EPA budget includes $979.5 million for the Clean Water State Revolving Fund. As of June 2015, the CWSRF has offered over 36,000 assistance agreements to local communities, providing over $111 billion in affordable financing for wastewater infrastructure, nonpoint source pollution control, and estuary management projects.

In FY 2017, the agency requests a tribal set-aside of two percent, or $30 million, whichever is greater, of the funds appropriated from the CWSRF. The EPA also requests the ability to use a portion of the Tribal set-aside for the following: 1) up to $2 million training and technical assistance related to the operation and management of treatment works on tribal lands; and 2) planning and design of treatment works for the construction, repair, or replacement of privately owned decentralized wastewater treatment systems on tribal lands. Resources will provide much needed assistance to these communities where sanitation infrastructure lags behind the rest of the country and it may cause significant public health concerns.

Through the Monitoring and Assessment Partnership, the EPA will work with states to develop and apply innovative and efficient monitoring tools and techniques to optimize availability of high-quality data to support Clean Water Act program needs. This partnership also will expand the use of monitoring data and geospatial tools for water resource protection to set priorities and evaluate effectiveness. The EPA, states, and tribes will collaborate to conduct field sampling for the 2017 National Lakes Assessment. In FY 2017, the EPA and states will finalize the 2013/2014 National Rivers and Streams Assessment and maintain the schedule for preparation of the coastal and wetlands conditions reports. The EPA/State Steering Committee for the National Rivers and Streams Assessment will be planning the national survey for rivers and streams, which will be targeted to be in the field in calendar year 2018.[10]

The EPA, in cooperation with federal, state and tribal governments and other stakeholders, will continue to make progress toward achieving the national goal of no net loss of wetlands under the Clean Water Act Section 404 regulatory program. In FY 2017, the agency is providing over $17 million for Wetlands Program Development Grants. In addition, in FY 2017, the EPA will work with other federal and state partners to maximize the effectiveness of resources provided through the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States (RESTORE) Act and support the Natural Resource Damage Assessment associated with the Deepwater Horizon oil spill to restore the Gulf of Mexico.

Since 2002, approximately 1.5 million acres of habitat have been protected or restored within National Estuary Program study areas. The agency's FY 2017 budget requests over $27 million for National Estuaries Programs and Coastal Waterways that will enable the protection or restoration of one hundred thousand habitat acres.

The EPA budget request includes $246 million for the Section 106 Categorical State Grant Program that supports prevention and control measures that improve water quality. States and tribes will implement water pollution control programs and strengthen their nutrient management efforts consistent with the EPA's 2011 Framework for state nutrient reduction.

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

In FY 2017, the agency will continue to assist local communities, particularly underserved communities, in their efforts to restore and protect the quality of their urban waters. The EPA will implement its Urban Waters program and will continue to co-lead the Urban Waters Federal Partnership. The Urban Waters Federal Partnership will provide technical assistance to the 19 Partnership locations and will continue to align federal resources from the EPA, DOI, USDA and other partners to meet local needs more effectively and advance shared multi-agency priorities. For example, the partnership will help address storm water management and promote green infrastructure to improve water quality through identification and transfer of best practices and successful local approaches. The Partnership will continue to identify and champion innovative approaches to making the delivery of federal resources to communities more effective and integrated and will contribute these ideas to the EPA agency-wide Communities Resource Network.

As part of these efforts, the EPA will assist communities in restoring and revitalizing urban waterways and the surrounding land through partnerships with governmental, business, community and other local partners. In FY 2017, the EPA will continue to support place-based work by providing technical assistance and networking support through the EPA's Urban Waters Learning Network, as follows:

- Providing small grants and targeted technical assistance to support innovative community-driven solutions that accelerate measurable improvements in water quality. Projects may include: community greening and green infrastructure, community-driven water quality monitoring and data collection, and community planning and visioning.

- Continuing to provide technical assistance and networking support through the EPA's Urban Waters Learning Network, a peer-to-peer network of urban waters practitioners across the country. Resources developed through this network will be made available nationally, thus effectively up scaling EPA's activities with communities and leveraging the program's place-based efforts for greater national impact.

Climate Change- Management of Sustainable Resources

Climate change contributes to changes in water quality and poses significant challenges to water resource managers. Impacts of climate change include too little water in some places and too much water in others, while some locations are subject to both of these conditions during different times of the year. Water cycle changes are expected to continue and will adversely affect energy production and use, human health, transportation, agriculture, and ecosystems. In 2012, the National Water Program published the second *National Water Program 2012 Strategy: Response to Climate Change*, which describes a set of long-term goals for the management of sustainable water resources for future generations in light of climate change and charts the key "building blocks" that will need to be taken to achieve those goals. It also reflects the wider context of climate change-related activity that is underway throughout the nation. The *2012 Strategy* is intended to be a roadmap to guide future programmatic planning.

Climate Ready Estuaries, Climate Ready Water Utilities, and Green Infrastructure are examples of programs that will help stakeholders adapt to climate change in FY 2017. The Climate Ready Water Utilities initiative will help water systems of all sizes integrate climate variability considerations into their long-range planning. Efforts to incorporate climate change considerations into key programs will help protect water quality and the nation's investment in drinking water and wastewater treatment infrastructure.

The WaterSense program is a key component of the agency's efforts to ensure long-term sustainable water infrastructure, contribute to greenhouse gas reductions, and help communities adapt to drought and climate change. Based on the number of water-conserving products shipped through the end of 2014 (the most recent year for which there is data), the program has contributed to cumulative savings in excess of one trillion gallons of water – enough water to supply all the homes in the United States for 42 days – and $21.7 billion in water, sewer, and energy bills. The energy savings associated with reducing the need to move, treat, and heat that water is equivalent to 54 MMTCO2E of greenhouse gas reductions.

Alaska Native Villages

In FY 2017, $17 million in funding is requested for the Alaska Rural and Native Village (ANV) program to continue to reduce disease and health care costs by providing critical basic drinking water and sanitation infrastructure in vulnerable rural and native Alaska communities. These communities lack such services disproportionately when compared to the rest of the country. Investments in wastewater and drinking water infrastructure in rural Alaska and ANV communities contributed to an increase of access to water and sewer service from 60 percent in the late 1990s to a current level (FY 2015) of 94.6 percent of serviceable rural Alaska homes.[11] Both water borne disease rates and health care costs have decreased through the reduction of exposure to raw sewage and drinking water contaminants.[12,13]

Geographic Water Programs

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

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

Great Lakes:

In FY 2017, the $250 million in funding requested for the EPA-led Great Lakes Restoration Initiative will address priority environmental issues (e.g., toxic substances, nonpoint source pollution, habitat degradation and loss, and invasive species) in the largest freshwater system in the world. This carefully coordinated interagency effort involves the cooperation of 16 federal agency partners and continues efforts under the third year of a new action plan. This effort has contributed to the removal of 50 Beneficial Use Impairments at 18 different Great Lakes Areas of Concern – five times the number of Beneficial Use Impairments removed in the preceding 22 years.

The EPA will place a priority on: 1) cleaning up and de-listing Areas of Concern; 2) reducing phosphorus contributions from agricultural and urban lands that contribute to harmful algal blooms and other water quality impairments; and 3) preventing introduction of invasive species. Expected outcomes to be achieved in FY 2017 include completing management actions at two Areas of Concern and removing seven Beneficial Use Impairments at Areas of Concern; reduction or control of terrestrial invasive species on an additional 10,000 acres; phosphorus reductions from targeting sources of excess nutrients in sub-watersheds of the western basin of Lake Erie, Saginaw Bay on Lake Huron, and Green Bay on Lake Michigan; and protection, restoration, or enhancement of 35,000 acres of Great Lakes habitats.

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[11] Based on data from the Indian Health Service (IHS) and the State of Alaska.

[12] Robert C. Holman, Anianne M Folkema, Rosalyn J. Singleton, John T. Redd, Krista Y. Christensen, Claudia A Steiner, Lawrence B Schonberger, Thomas W. Hennessy, James E. Cheek (2011), *Disparities in Infectious Disease Hospitalizations for American Indian/Alaska Native People,* Public Health Rep. 2011 Jul-Aug; 126(4): 508–521, http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3115210/.

[13] Thomas W. Hennessy, Troy Ritter, Robert C. Holman, Dana L. Bruden, Krista L. Yorita, Lisa Bulkow, James E. Cheek, Rosalyn J. Singleton, Jeff Smith, *The Relationship Between In-Home Water Service and the Risk of Respiratory Tract*, Skin, and Gastrointestinal Tract Infections Among Rural Alaska Natives, Am J Public Health. 2008 November; 98(11): 2072–2078. doi: 10.2105/AJPH.2007.115618.

Chesapeake Bay:

The Chesapeake Bay Program requests $70 million in FY 2017, which will allow the EPA-led inter-agency Federal Leadership Committee to continue implementing the President's Executive Order on Chesapeake Bay Protection and Restoration, to meet the EPA's broad responsibilities under Clean Water Act Section 117. A key focus is implementation of the management strategies under the Bay Watershed Agreement, which was signed in June 2014. The agreement establishes 10 goals and 31 outcomes for sustainable fisheries, water quality, vital habitats, climate change, toxic contaminants, and other areas consistent with the EO. The EPA and its federal partners have worked with the Bay watershed jurisdictions to develop and implement management strategies for all of the outcomes and in FY 2017 will implement two-year workplans. Also, the EPA will continue its oversight of the Chesapeake Bay Total Maximum Daily Load and its support for the Bay watershed jurisdictions as they implement their Watershed Implementation Plans. The EPA will continue its close work with the jurisdictions and thousands of local governments by providing financial support and technical guidance to effectively implement the TMDL. The EPA also will continue implementation of a basin-wide Best Management Practice verification framework.

In FY 2017, continued implementation of the compliance and enforcement strategy for the Bay watershed will target sources of pollution impairing the Bay in the watershed and airshed. The program met its FY 2015 target for pollution controls for phosphorus, but not for nitrogen or sediment. By FY 2017, the program expects to achieve 60 percent of its goals for implementing nitrogen, phosphorus and sediment reduction actions to achieve final TMDL allocations (the long term goal is 100 percent of all reduction actions by 2025). In FY 2017, the TMDL Midpoint Assessment will be completed in order to help inform the development of the jurisdictions' Phase III WIPs in 2018. In addition, by the end of FY 2017, the jurisdictions will have EPA-approved verification programs in place to ensure that their practices and controls are properly installed, operating and maintained.

The EPA will continue its broad range of grant programs, and will prioritize funding for jurisdictions, local governments and watershed organizations based on their proven ability to reduce nutrient and sediment loads from key sectors such as urban development and agriculture. Also, the EPA is working to ensure that the states provide support to local governments for on the-ground actions necessary to achieve the goals of the Bay TMDL. In FY 2017, the EPA will continue to provide assistance to Bay watershed jurisdictions working to improve the viability and integrity of their water quality offset and trading programs.

Puget Sound:

The Puget Sound program's FY 2017 budget request of over $30 million will allow the EPA to continue supporting efforts to protect and restore the Puget Sound by implementing the Puget Sound Action Agenda. The goal is for the estuary to support balanced indigenous populations of shellfish, fish and wildlife, and the extensive list of recognized uses of the Puget Sound, as well as to meet obligations under federal tribal treaties.

In FY 2017, the Puget Sound program will continue to implement priority projects accelerate the protection and restoration of riparian areas that protect important stream habitats for endangered salmon stocks. The EPA will strengthen its coordination with other federal agencies to more effectively target high value riparian areas for investment in multi benefit projects to protect and enhance ecosystem and habitat functions. The EPA addresses its obligations under federal Tribal treaties by funding Puget Sound projects that support treaty-protected resources such as indigenous populations of shellfish, fish and other wildlife. The EPA will work closely with the National Oceanic and Atmospheric Administration and USDA's Natural Resources Conservation Service to implement priority work for riparian protection and restoration. Additionally, the EPA will continue to provide leadership for the Puget Sound Federal Caucus, facilitating coordination of Puget Sound work among the larger group of federal agencies in the Puget Sound basin.

Gulf of Mexico Program:

The Gulf of Mexico Program's FY 2017 budget request of $4.0 million will support Gulf restoration work, such as improved water quality, habitat conservation and replenishment, environmental education/outreach and protection of coastal and marine resources. Competitive grants will support the development and implementation of comprehensive, stakeholder-informed coastal improvement projects and tools. The focus will be projects and activities that directly support "community-based" restoration and enhancement of habitat, improvement of water quality, education on climate change and coastal resiliency issues, and critical environmental outreach and education opportunities for the general public, including the underserved and under-represented communities of the Coast. The work outputs and outcomes are closely coordinated and complementary with ongoing Gulf Coast Ecosystem Restoration Council and Natural Resources Damages Assessment activities related to the Deepwater Horizon Oil Spill. The projects, programs and partnerships are all taking a regional ecosystem-based approach for the Gulf of Mexico. The EPA will continue to coordinate with the U.S. Department of Agriculture, the U.S. Department of Commerce, other federal agencies, the Gulf States, and other partners to leverage resources toward projects within the Gulf of Mexico region and the Mississippi River Basin.

Homeland Security

In FY 2017, the EPA will continue to provide its national training program to support water systems in the design and deployment of a Water Quality Surveillance and Response System (SRS). Deployment of a Water Quality Surveillance and Response System can allow a water utility to rapidly detect and respond to water quality problems such as contamination in the distribution system in order to reduce public health and economic consequences. In FY 2017, the EPA's water contamination detection efforts will focus on providing outreach and training across the nation, exploring a possible SRS certification program for water systems, and providing technical assistance to water utilities engaged in designing and deploying SRS systems. Also, the EPA will continue to support the Water Alliance for Threat Reduction program to protect the nation's critical water infrastructure and oversee the Water Laboratory Alliance, which enables the water sector to rapidly analyze a surge of laboratory samples during a significant contamination event.

In FY 2017, the EPA will continue to fulfill its obligations under Executive Order (EO) 13636 – Improving Critical Infrastructure Cybersecurity – which designates the EPA as the lead agency responsible for cybersecurity in the water sector. Also, the EPA will continue to partner with the water sector to promote cybersecurity practices and gauge progress in the sector's implementation of these practices as directed by the Cybersecurity Enhancement Act of 2014. Any interruption of a clean and safe water supply will erode public confidence and could produce significant public health and economic consequences.

In FY 2017, the EPA will continue working to ensure that water sector utilities have access to tools and information to prevent, detect, respond to, and recover from all hazards including terrorist attacks and extreme weather events by promoting drinking water, wastewater, and stormwater system preparedness through the Climate Ready Water Utilities (CRWU) initiative. The mission of the CRWU initiative is to assist water sector utility owners and operators in integrating impacts of climate change and extreme weather considerations into their routine emergency planning practices and operating procedures. Also, the EPA will continue to provide extensive nationwide training sessions with at least 200 water and wastewater systems as well as a series of train-the-trainer forums for technical assistance providers in an effort to reach smaller utilities, with a significant focus in FY 2017 on improving the resilience of the water sector to the impacts of drought.

Research

The EPA's Safe and Sustainable Water Resources (SSWR) research program, funded at $106.3 million in FY 2017, conducts research and provides the information and tools to EPA, water resource managers, and other decision makers at all levels of government. Research integrates social, economic, and environmental sciences to support the nation's range of growing water-use and ecological requirements.

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

In order to better achieve these goals in FY 2017 and beyond, the SSWR program is organized into four interrelated topics:

- **Watershed Sustainability:** Gathering, synthesizing, and mapping the necessary environmental, economic, and social information of watersheds, from local to national scales, to determine the condition, future prospects, and restoration potential of the Nation's watersheds. For example, a collaborative, cross-agency economic analysis will be continued to account for the value of water benefits and to provide tools for determining changes in value associated with changes in water quality, ecosystem services of water bodies, and watershed integrity.
- **Nutrients (including harmful algal blooms):** Conducting the EPA's nitrogen and co-pollutant (e.g., phosphorus, sulfur, sediment) research efforts for multiple types of water bodies and coordinating across media (water, land and air) and various temporal and spatial scales, including support for developing numeric nutrient criteria, decision-support tools, and cost-effective approaches to nutrient reduction. For example, the EPA's research will evaluate the relationship between changing water temperatures and the development and duration of algal blooms as well as the proclivity of algae to produce cyanotoxins.
- **Green Infrastructure (GI):** Developing innovative tools, technologies, and strategies for managing water resources (including stormwater) today and over the long term as the climate and other conditions change. For example, on-going community pilot studies will examine the effectiveness of GI pilots and potential co-benefits in order to provide guidance and lessons learned for other communities.
- **Water Systems (Drinking Water and Wastewater):** Developing tools and technologies for the sustainable treatment of water and wastewater, and promoting the economic recovery of water, energy, and nutrient resources through innovative municipal water services and whole system assessment tools. This area focuses on small water systems and can be scaled up to larger systems. For example, research will assess the health and environmental impacts of known and emerging risks of individual and groups of chemical and biological contaminants, including algal toxins and cyanotoxins, in drinking water and its sources.

In June 2015, the EPA released its *Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources* (External Review Draft),[14] along with nine peer-reviewed EPA reports conducted as part of the EPA's Hydraulic Fracturing Drinking Water Study. This study has produced a total of 12 EPA reports and four EPA-authored journal publications. It advances our scientific understanding of the potential impacts of hydraulic fracturing on drinking water resources and the factors that may influence those impacts. The assessment is an important resource for states, tribes, industry and other stakeholders, and the public who are seeking to develop unconventional oil and gas resources while protecting human health and the environment. The EPA's draft hydraulic fracturing drinking water assessment will be reviewed by the agency's Science Advisory Board (SAB) in FY 2016, and will be finalized in 2016 once all comments are incorporated.

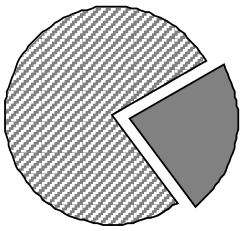
In FY 2017, research devoted to unconventional oil and gas activities will focus on understanding and preventing potential impacts on water quality and ecosystems. This research will continue to assist decision makers (federal, state, tribal, and local; industry and energy sectors; and the public) in making environmentally responsible energy extraction and processing decisions. This work aligns with a Memorandum of Agreement (MOA) between the EPA, the Department of Energy (DOE) and the Department of the Interior (DOI) to develop a multi-agency program to focus on timely, policy relevant science to support sound policy decisions by state and federal agencies for ensuring the prudent development of energy sources while protecting human health and the environment. Additional goals

[14] http://www2.epa.gov/hfstudy.

include minimizing potential risks in developing these resources, maximizing each agency's particular strength, and reducing interagency overlap. Also as part of the MOA, the EPA's Air, Climate and Energy (ACE) research program will undertake a coordinated effort to study the potential impacts of hydraulic fracturing on air quality.

Goal 3: Cleaning Up Communities and Advancing Sustainable Development

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



23.1% of Budget

Resource Summary

(Dollars in Thousands)

	FY 2015 Enacted	FY 2016 Enacted	FY 2017 President's Budget	Difference FY 2016 EN to FY 2017 PresBud
1 - Promote Sustainable and Livable Communities	$441,440	$432,536	$481,556	$49,020
2 - Preserve Land	$221,654	$221,304	$240,784	$19,480
3 - Restore Land	$1,025,551	$1,028,259	$1,066,070	$37,812
4 - Strengthen Human Health and Environmental Protection in Indian Country	$86,908	$87,453	$121,395	$33,941
Goal 3 Total	**$1,775,553**	**$1,769,552**	**$1,909,805**	**$140,253**
Workyears	3,871	3,809	3,813	4

NOTE: Numbers may not add due to rounding.

Introduction

The EPA leads efforts to preserve, restore, and protect our land, for current and future generations. In communities across the country, the EPA improves the health of American families and protects the environment by cleaning up and restoring valuable local assets, preventing contamination, and responding to emergencies. Collaborating with and effectively leveraging efforts of other federal agencies, states, tribes and local communities, the EPA uses its resources to enhance the livability and economic vitality of neighborhoods in and around brownfields, Superfund, underground storage tank, and other hazardous waste sites. The EPA uses resources to improve oversight of chemical facilities (storage and manufacturing), conducted in coordination with other federal agencies, to prevent and, if needed, respond to chemical facility accidents.

Cleaning up contaminated sites optimizes reuse of existing infrastructure and results in more efficient and livable communities. Encouraging the minimization of environmental impacts throughout the full life cycle of materials, the EPA's programs promote sustainability. We will continue our work to prevent and reduce exposure to contaminants, accelerate the pace of cleanups, and reduce the environmental impacts associated with land use across the country. Through the prevention of releases and the cleanup of existing contamination and efforts to more effectively reuse materials, the EPA protects and restores air and water

resources. Uncontrolled waste releases often affect the quality of the air and cause contamination of groundwater and surface water, contaminating drinking water supplies. Contamination may cause acute illnesses or chronic diseases and threaten healthy ecosystems. Unintended consequences of local land use and infrastructure investments may cause environmental harm, such as increased stormwater runoff, loss of open space, and increased greenhouse gas emissions.

The EPA works collaboratively with international, state, Tribal, and local partners to reach its goals and consider the effects of decisions on communities, placing an emphasis on those areas that are disadvantaged, overburdened and underserved. The EPA will continue to work with communities to help them understand and address risks posed by intentional and accidental releases of hazardous substances into the environment and ensure that communities have an opportunity to participate in environmental decisions that affect them. For example, the 2,000 mile border between the United States and Mexico is one of the most complex and dynamic regions in the world, where the benefits of the EPA's international programs are perhaps most apparent. This region accounts for three of the ten poorest counties in the U.S., with an unemployment rate 250-300 percent higher than the rest of the United States.[1] Our efforts are guided by scientific data, tools, and research that alert us to emerging issues and inform decisions on managing materials and addressing contaminated properties.

In FY 2017, the EPA will partner with states and tribes to prevent and reduce exposure to contaminants. Improved compliance at high-risk oil and chemical facilities through inspections will help prevent exposure and lower the risk of accidents. By coordinating with and leveraging the work of other federal agencies, the EPA and its partners will be able to focus more effectively on high risk facilities. For example, in June 2014, the Occupational Safety and Health Administration was inspecting a facility and alerted EPA Region 2 of a potential compliance issue. The EPA inspected the facility and found significant corrosion in a piece of equipment, which indicated that an unplanned release of ammonia was potentially imminent. The EPA's emergency response program immediately notified and worked closely with the local fire department and company representatives to address and avert the potential dangerous release of ammonia.

In FY 2017, the agency is investing nearly $1.31 billion to continue to apply the most effective approaches to preserve and restore land by developing and implementing prevention programs, improving response capabilities, and maximizing the effectiveness of response and cleanup actions under the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund), Leaking Underground Storage Tanks (LUST), and other authorities. This strategy will help ensure that human health and the environment are protected and that land is returned to beneficial use in the most effective way.

Superfund and RCRA provide legal authority for the EPA's work to protect and restore the land. The agency and its partners use Superfund authority to clean up uncontrolled or abandoned hazardous waste sites, allowing land to be returned to productive use. Under RCRA, the EPA works in partnership with states and tribes to address risks associated with processes that generate, recycle, transport, treat, store, or dispose of waste. Many communities across the country regularly face risks posed by intentional and accidental releases of hazardous substances into the environment. Approximately 166 million people – roughly 53 percent of the U.S. population and 55 percent of all U.S. children under the age of 5 – live within three miles of a Superfund, RCRA Corrective Action, or Brownfields site that received EPA funding. This population is more likely to be minority, lower income, and linguistically isolated, and less likely to have a high school education than the U.S. population as a whole.[2]

In FY 2017, scientific data, research, and cost-effective tools will support the land cleanup programs (e.g., Superfund, Brownfields, RCRA Corrective Action, and LUST). The EPA is making significant progress in protecting people who live near sites, assuring that in advance of the full cleanup process, and unacceptable human exposures to contaminants are eliminated or controlled as soon as possible. The RCRA Corrective

[1] For additional information, refer to: http://hsc.unm.edu/community/toolkit/docs2/10.USMBHC-TheBorderAtAGlance.pdf.

[2] Data collected includes: site information as of the end of FY 2013 from CERCLIS, RCRAInfo, and ACRES and census data from the 2009-2013 American Community Survey.

Action and Superfund programs have made significant progress in stabilizing exposure, while longer-term cleanup moves forward. As of FY 2013, approximately 30 million people lived within a mile of a Superfund or RCRA Corrective Action site where human exposure to contamination has been controlled.[3] Across all cleanup programs, the EPA will continue to take action to address any unacceptable exposures and eliminate acute risks while also pursuing long-term, permanent cleanups. This approach is exemplified by the EPA's goal to control contaminated groundwater migration at 1,164 final NPL sites, deleted NPL sites and non-NPL sites with Superfund Alternative Approach (SAA) agreements in place; and to control human exposures to contamination at 1,457 final NPL sites, deleted NPL sites and non-NPL sites with SAA agreements in place by the end of FY 2017.

Implementing Goal 3 activities will support the EPA's cross-agency strategy, *Working to Make a Visible Difference in Communities.* The EPA will work to conduct transparent and accessible decision-making processes, deliver information that communities can use to participate meaningfully, and help make timely cleanup decisions and produce outcomes that are responsive to community perspectives. The EPA also will help communities proactively address endemic and emerging environmental challenges in ways that build long-term sustainability.

Under federal environmental statutes, the EPA has responsibility for protecting human health and the environment in Indian country. Under the EPA's 1984 Indian Policy, reaffirmed January 9, 2014, the agency works with tribes on a government-to-government basis in recognition of the federal government's trust responsibility to federally-recognized tribes and that the "EPA recognizes tribes as the primary parties for setting standards, making environmental policy decisions, and managing programs for reservations consistent with agency standards and regulations."

The FY 2017 requested level for Cleaning up Communities and Advancing Sustainable Development is $1.91 billion, an increase of $140.3 million over the FY 2016 Enacted Budget and 3,813.0 FTE, an increase of 4.0 FTE.

FY 2017 Major Changes

The FY 2017 request will continue to focus on FY 2016's top priority work of communities, hazardous waste cleanup, and sustainability. Certain reductions were needed to redirect funding to cover fixed costs increases and address emerging cybersecurity issues. Specific changes are discussed below:

Communities

Communities are at the front line when it comes to environmental challenges, including those stemming from climate change. In FY 2017, the EPA will request increased resources for the following activities: 1) conducting resiliency planning exercises and capacity building in Alaska Native Villages (+$2.9 million); 2) expanding technical assistance for communities under the *Making a Visible Difference in Communities* Cross-Agency Strategy to support an integrated approach to implementing sustainability principals at the local level (+$2.6 million); 3) building on the agency's successful Lean (+$2.4 million) and program evaluation program by providing increased funding for program evaluations (+$800 thousand) to support business process improvements across the agency's programs and find efficiencies to benefit the agency and its stakeholders; and 4) providing non-EPA "Circuit Riders' to provide on-the-ground technical assistance to multiple communities who will work with the Administration's existing Place Based Climate Action Champions as well as support the agency's multi-media climate mitigation efforts (+$6.5 million). In addition, the EPA will continue to build on work already underway to support environmentally overburdened and economically distressed communities (+$6.4 million). The EPA will focus on delivering technical support, providing grants to states, and establishing measures and metrics. This work will maximize alignment and leveraging of resources to more effectively and efficiently deliver on-the-ground results in communities.

[3] U.S. EPA, Office of Solid Waste and Emergency Response Estimate. Data collected includes: (1) Site information as of the end of FY 2013; and (2) 2009-2013 American Community Survey (ACS) census data.

Brownfields

In FY 2017, there is a $12.1 million increase in brownfields resources. This increase will provide funding to communities for environmental revitalization and economic redevelopment efforts to work together to plan, assess, cleanup, and reuse brownfields, and to prioritize ongoing efforts to target Brownfields work toward small and rural communities, and fund new Tribal grantees. Specifically within this increase, resources will support area-wide planning (AWP) grants as part of the Administration's POWER+ initiative, additional direct assessment grants, Targeted Brownfield Assessments in communities without access to other assessment resources, increased support for community brownfield revolving loan funds (RLFs), and the assessment and cleanup of petroleum contaminated brownfields sites.

Superfund Remedial

In FY 2017, an increase of $20 million will improve the agency's ability to continue essential ongoing fund-financed projects, maximize the preparation of "shovel-ready" projects, and provide funding (thus reducing the backlog) for new construction projects. The program will continue to manage the existing backlog of projects and will continue to pursue other resources, such as potentially responsible parties and special accounts.

Research: Sustainable and Healthy Communities (SHC)

In FY 2017, the Sustainable and Healthy Communities (SHC) program, funded at $146.7 million, will continue to support the EPA's program offices and state and Tribal partners in protecting and restoring land, and providing community decision makers with decision tools to support community health and well-being.

Agency Priority Goals[4]

As part of the EPA's FY 2014-2018 Strategic Plan, the EPA established a set of FY 2014-2015 Agency Priority Goals (APG). The agency made 21,836 sites ready for anticipated use in FY 2014-2015, exceeding its FY 2014-2015 APG of 18,970. In FY 2017, the agency will build on this progress under its updated APG for FY 2016-2017:

Clean up contaminated sites to enhance the livability and economic vitality of communities. By September 30, 2017, an additional 18,600 sites will be made ready for anticipated use (RAU) protecting Americans and the environment one community at a time. RAU is an indicator that the local, state, or federal agency has determined that cleanup goals and engineering and institutional controls have been implemented for the media that affects current and reasonably anticipated future use so that the sites are available for communities to use or reuse.

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

FY 2017 Activities

In FY 2017, the EPA will work to preserve and restore the nation's land by ensuring proper management of waste and petroleum products, reducing waste generation, increasing recycling and by supporting its cleanup programs and oversight of oil and chemical facilities. These efforts are integrated with the agency's efforts to promote sustainable and livable communities. Work under Goal 3 supports four objectives: 1) Promote Sustainable and Livable Communities, 2) Preserve Land; 3) Restore Land; and 4) Strengthen Human Health and Environmental Protection in Indian Country.

[4] Additional information on the EPA's APGs can be found at https://www.performance.gov/.

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

The FY 2017 request for Promoting Sustainable and Livable Communities is $481.5 million, an increase of $49 million above the FY 2016 Enacted Budget and 1,042.3 FTE, an increase of 4.8 FTE. The EPA supports the goals of urban, suburban and rural communities to grow in ways that improve their residents' environment, health, and quality of life. With the support of partners across all levels of government, communities can grow in ways that also strengthen the economy, help them adapt to climate change, improve their resiliency to disasters, use public resources more efficiently, revitalize neighborhoods, and improve access to jobs and amenities. By making sustainable infrastructure investments, communities can build innovative and functional systems on neighborhood streets and sidewalks to manage stormwater run-off and still provide easy access for pedestrians, bicyclists, on-street parking and other beneficial uses. Under local planning and zoning codes that account for the environmental impacts of development, the private sector can more easily construct market-ready "green" buildings serving a range of housing needs. Communities also can benefit from tools, technology and research that better engage citizens and inform local decision making to support smart and sustainable growth.

In FY 2017, the EPA will continue to use multiple approaches to promote sustainable, healthier communities and protect vulnerable populations and disproportionately impacted low-income, minority, and Tribal communities. The agency is focused on threats to sensitive populations, such as children, the elderly, and individuals with chronic diseases.

Brownfields:

The EPA's Brownfields program is funded at about $165.4 million, contributing significantly to the agency's cross-agency strategy, *Making a Visible Difference in Communities*. This program supports states, local communities, and tribes work to assess and cleanup sites within their jurisdiction and return them to productive reuse. The Brownfields program also helps address climate change by ensuring that potential impacts are taken fully into account when cleanups are planned and implemented. The Brownfields program works closely with communities like Waterbury, Connecticut, where grants to redevelop brownfields resulted in the completion of a new public park, an urban garden and greenhouse facility, and the creation of an industrial commons which brought new manufacturing jobs into the city. Many of these projects in EPA's Region 1 also have helped employ local workers trained through the EPA's Brownfields job training program.

In FY 2017, the EPA plans to award approximately 97 assessment cooperative agreements (estimated $24.0 million) that recipients may use to inventory, assess, and conduct cleanup and reuse planning at brownfields sites. In FY 2017, the EPA expects to continue the Assessment Coalition option which allows three or more eligible entities to submit one grant proposal for up to $600 thousand to assess sites within the assessment coalition members' area. This level of assessment funding will lead to approximately 582 site assessments in the three years following the awards. Funding also will support approximately 38 direct cleanup cooperative agreements (estimated $7.5 million) to enable eligible entities to clean up properties that the recipient owns. This funding will lead to approximately 38 sites cleaned up. The agency will award direct cleanup cooperative agreements of up to $200 thousand per site to eligible entities and non-profits.

Funding also will support assessment and cleanup of abandoned underground storage tanks (USTs) and other petroleum contamination found on brownfields properties (estimated $22.5 million) for up to approximately ten Targeted Brownfields Assessments and approximately 112 brownfields assessments, and RLF and cleanup cooperative agreements. The Environmental Workforce Development and Job Training (EWDJT) cooperative agreements (estimated $3.0 million) will provide funding for approximately 15 cooperative agreements of up to $200 thousand each. The next grant competition for RLF cooperative agreements will occur in FY 2018. In FY 2017, supplemental funding will support the re-capitalization of up to 56 high-performing RLF cooperative agreements (estimated at $14.0 million) to enable the recipients to make loans and sub-grants to clean up brownfield properties.

Chemical Facility Safety:

In FY 2017, the EPA requests $23.7 million for the State and Local Prevention and Preparedness program, an increase of $8.4 million from the FY 2016 Enacted Budget. This critically needed increase will provide crucial resources to ensure the safety of communities adjacent to the 12,500 chemical facilities located across the country. While the agency has initiated some work within current resources, additional funding is necessary to improve chemical and facility safety and security and other activities related to the President's Executive Order on Improving Chemical Facility Safety and Security.[5] In addition, this increase will support compliance education for the first phase of the RMP regulatory changes, outreach efforts to engage Local Emergency Planning Committees (LEPCs), data sharing, and inspections. There is a critical need for the agency to continue efforts to prevent and respond to accidental releases of harmful substances by developing clear authorities and training personnel. Accidents reported to the EPA since 2005 by the current universe of Risk Management Program facilities have resulted in approximately 64 worker and public deaths, over 1,700 injuries, nearly 350,000 people sheltered in place, and more than $2.5 billion in on-site and off-site damages.[6] States and communities often lack the capacity needed to prepare for and/or respond to these emergencies or to prevent them from happening. The request for additional funds will support the EPA's efforts to help these communities build that capacity.

Smart Growth:

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

The Smart Growth program helps community and government leaders meet environmental standards through sustainable community and building development, design, policies, and infrastructure investment strategies. The program does this by: providing technical assistance to states, local and Tribal governments; conducting research and developing tools that help communities see the connection between development and the environment, the economy, and public health; and engaging, leveraging and aligning community-based activities and allotments with other federal agencies. In FY 2017, the program will continue to innovate and use new mechanisms to address the growing demand from communities for more direct technical assistance, including in rural areas, in areas that are disadvantaged, or in areas that have been adversely affected by contamination and environmental degradation.

Environmental Justice:

In FY 2017, the EPA will continue to enhance capabilities to engage communities and support their ability to be full partners in agency programs. The Environmental Justice (EJ) program aims to make a visible difference in communities by working to provide holistic central mechanisms to support, assist, and engage with overburdened communities and vulnerable populations, including Tribal populations, rural communities and children. The goal is to provide communities with the support needed in order to leverage and work in conjunction with other agency and other federal programs such as Brownfields assessment and cleanup, Urban Waters, Sustainable Communities, and Brownfields Area-Wide Planning. This approach is in keeping with the EJ program's overall emphasis of fostering greater collaboration and leveraging of resources across EPA and the rest of the federal family. Supporting the creation of such collaborations in vulnerable and overburdened communities will help communities to have capacity and skills and to benefit from specialized

[5] See, Executive Order 13650: Improving Chemical Facility Safety and Security issued August 1, 2013 and Actions to Improve Chemical Facility Safety and Security – a Shared Commitment report issued May 2014.
[6] The EPA's RMP database.

agency programs. With a focus on peer-to-peer learning and collaboration, the EPA will make critical use of the successful support and engagement that these programs have achieved, by leveraging those community experiences in a broader yet more focused manner. This approach is also consistent with feedback received through discussions with community leaders. Within the EJ program, the agency will continue to build community capacity and provide technical assistance and training to overburdened and vulnerable communities. In FY 2017, the proposed budget for Environmental Justice is $15. 9 million.

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

The FY 2017 request for Preserving Land is $240.7 million, an increase of $19.5 million over the FY 2016 Enacted Budget and 573.9 FTE, an increase of 4.2 FTE.

RCRA Waste Management:

The FY 2017 budget provides nearly $70.4 million to the RCRA Waste Management program.[7] The RCRA program is critical to comprehensive and protective management of solid and hazardous materials for the entire lifecycle. Resources for state implementation are provided through the Hazardous Waste Financial Assistance categorical grant. In FY 2017, RCRA permits for approximately 20,000 hazardous waste units (such as incinerators and landfills) at 6,600 treatment, storage, and disposal facilities will be issued, updated or maintained. The EPA provides leadership, work-sharing, and support to the states and territories authorized to implement the permitting program and directly implements the entire RCRA program in Iowa and Alaska.[8] The EPA is facing an increasing number of state implementation support requests, including help addressing complex regulatory and statutory interpretation issues. Requests for this type of support are expected to continue in FY 2017. The EPA's long-term goal, described in the agency's FY 2014–2018 Strategic Plan, is to ensure 500 additional facilities receive new or updated controls. Since FY 2010, 750 facilities received new or updated controls; 120 of these were accomplished in FY 2015. In FY 2017, the EPA will work with states to meet the FY 2017 target of implementing permits (both initial approved controls and updated controls) at 115 RCRA hazardous waste management facilities. Permit maintenance, including permit modification, ensures that the permitted conditions continue to be protective and prevent release.

The EPA prioritizes polychlorinated biphenyl (PCB) cleanup approvals and will expedite high priority cleanups or address those unaddressed in a timely fashion. The EPA also will support national PCB cleanup and disposal activities by: assessing emerging technologies and issuing approvals (no states can be authorized for PCBs); and evaluating PCB wastes against the criteria specified in the Toxic Substance Control Act (TSCA). This effort will be tracked by a performance measure that was implemented in FY 2014 to track all approvals (i.e., cleanup, storage and disposal activities) issued by the EPA under TSCA. The EPA issues approximately 50 disposal and storage approvals and 150 cleanup approvals per year. The annual target for FY 2017 is 200 approvals for the comprehensive measure for cleanups, disposal, and storage activities. The EPA issued 1,275 PCB approvals between FY 2008 and FY 2015.

Hazardous Waste Electronic Manifest:

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

[7] This includes the $7.4 million requested for the e-Manifest account.
[8] For additional information, refer to: http://www.epa.gov/hwpermitting.

Manifest) program will reduce the reporting burden for firms regulated under RCRA's hazardous waste provisions by approximately $75 million annually.

In FY 2017, the EPA is providing $7.4 million within the RCRA Waste Management program for the e-Manifest account, to continue work on the e-Manifest system. This funding will allow development of the e-Manifest IT system to continue through to system deployment anticipated to occur in FY 2018. The EPA's new digital services effort is helping to design an agile development strategy for this important project. In FY 2017, the agency will continue to build on the framework which will evolve into what is termed a minimum viable product (MVP), while continuing to engage often with users and stakeholders and hosting at least one meeting of the e-Manifest Advisory Board. Also by FY 2017, the EPA will have awarded one or more major contract vehicles that will be used to complete system development, deploy the system nationally, and conduct follow on operations, maintenance, and enhancements. In addition, the EPA will complete the final User Fee rule, which will be published approximately 90 days before national system deployment (anticipated in FY 2018).

Sustainable Materials Management (SMM):

In FY 2017, the EPA will focus a total of $1.6 million to support the EPA's investment in climate mitigation through waste program activities to reduce greenhouse gas (GHG) emissions. The agency's air programs are making progress addressing GHG emissions from power plants, vehicles, oil, and gas operations; however, further efforts are required to put the country on an emissions trajectory consistent with the President's long-term climate goals. The EPA will continue to advance SMM practices and a cradle-to-cradle perspective representing an important emphasis shift from waste management to materials management. The agency's approach to SMM integrates the safe reuse of materials with economic opportunity. In FY 2017, the EPA will utilize SMM to offset the use of virgin resources by an estimated 9,550,000 tons of materials and products. The EPA will continue to promote the SMM approach in high priority areas (e.g., Sustainable Food Management, Used Electronics, and Federal Government), which are selected based on an analysis of opportunities for reducing environmental impacts in *Sustainable Materials Management: The Road Ahead*.[9] In FY 2017, the EPA will continue to lead by example, and will help other federal agencies adopt SMM approaches and promote the reduction of GHG emissions, which furthers the goals of Executive Order 13514 ("Federal Leadership in Environmental, Energy, and Economic Performance"), and also saves money. For example, the EPA estimates that the national implementation of the Federal Green Challenge has saved the taxpayers more than $24 million as of the end of FY 2014. The EPA also will explore the application of the SMM approach into other high priority sectors, based on lessons learned from the first two years of the national SMM program and re-evaluation of *The Road Ahead.*

LUST Prevention:

There is a strong relationship between successfully managing the LUST clean up backlog and reducing the number of new releases through the prevention program. Since 2007, the EPA has placed an increased emphasis on monitoring compliance through increased frequency of inspections and other Energy Policy Act (EPAct) provisions. During this time, compliance rates have increased by 9.4 percent. The continued reduction in confirmed releases will remain a critical component in backlog reduction (which is at the lowest level since 1990), but maintaining cleanup progress is essential as well. In FY 2015, the EPA increased to 72.6 percent the number of UST facilities that were in significant operational compliance with leak prevention and detection requirements. The collaboration between the EPA and states and tribes contributes to these efforts and supports the cross-agency strategy for A New Era of State, Local, Tribal, and International Partnerships.

In FY 2017, the EPA will provide nearly $27.9 million to continue assisting states in complying with release prevention activities authorized by the EPAct. States rely primarily on federally funded assistance agreements to maintain inspection frequency and ensure compliance which will help prevent future confirmed releases. States may use money from LUST assistance agreements for inspections, other release

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

prevention and compliance assurance activities for federally-regulated USTs, and enforcement activities related to release prevention.

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

The FY 2017 request for Restoring Land is nearly $1.07 billion, an increase of $37.8 million over the FY 2016 Enacted Budget and 2,079.0 FTE, a decrease of 9.4 FTE.

Land Cleanup and Revitalization:

In addition to promoting sustainable and livable communities, the EPA's cleanup programs (e.g., Superfund Remedial, Superfund Federal Facilities , Superfund Emergency Response and Removal, RCRA Corrective Action, Brownfields, the Toxic Substances Control Act, PCB Cleanup and Disposal, and LUST Cooperative Agreements) and its partners are taking proactive steps to facilitate the cleanup and revitalization of contaminated properties. To support the Land Revitalization Initiative, in 2004 the EPA created the Land Revitalization Agenda[10] to integrate reuse into the EPA's cleanup programs, establish partnerships, and help make land revitalization part of EPA's organizational culture.

In FY 2017, the EPA will continue to help communities clean up and revitalize once productive properties by: removing contamination; fostering ecologic habitat enhancements; enabling economic development; taking advantage of existing infrastructure; and maintaining or improving quality of life. There are multiple benefits associated with cleaning up contaminated sites: reducing mortality and morbidity risk; preventing and reducing human exposure to contaminants; making land available for commercial, residential, industrial, or recreational reuse; and promoting community economic development.

Working collaboratively with partners across the country, the EPA engages with communities in site cleanup decisions, fosters employment opportunities in communities during and after remedy construction, preserves green infrastructure, promotes the redevelopment of blighted areas, and protects human health and the environment. A peer-reviewed study found that residential property values within three miles of Superfund sites increased 18.6-24.5 percent when sites were cleaned up and deleted from the NPL.[11] Further, at more than 850 Superfund sites, the EPA's engagement has facilitated the sites' productive reuse. At 450 of the Superfund sites where reuse is occurring, economic data from FY 2014 demonstrates there were approximately 3,400 businesses generating $31 billion[12] in sales. These businesses employ over 89,000 people, who earn a combined income of $6.0 billion.[13] These studies support the agency strategy to advance the use of evidence in decision-making.

Superfund properties are often reused as commercial facilities, retail centers, government offices, residential areas, industrial and manufacturing operations, and parks and recreational areas. Some of the reuse can play a role in economically revitalizing a community. In the EPA's Region 4, on-site businesses and organizations on current and former Superfund sites provide over 6,200 jobs and contribute an estimated $334 million in annual employment income for residents across the Southeast. Restored on-site properties in Region 4 generate about $4.4 million in annual property tax revenues for local governments.[14]

A cumulative total of 1,714 sites have been listed on the NPL, including 391 which have now been deleted. Sites are placed on the NPL when the presence of contamination, often from complex chemical mixtures of hazardous substances, has impacted groundwater, surface water, and/or soil. The precise impact of many

[10] Additional information on this agenda can be found on http://www.epa.gov/landrevitalization/agenda_full.htm.
[11] Gamper-Rabindran, Shanti and Christopher Timmins. 2013. "Does cleanup of hazardous waste sites raise housing values? Evidence of spatially localized benefits," Journal of Environmental Economics and Management 65(3): 345-360, http://dx.doi.org/10.1016/j.jeem.2012.12.001.
[12] The 2014 sales data were revised from the FY 2016 congressional justification due to a correction.
13 For more information on Redevelopment Economics and in depth case studies please use the link below. http://www.epa.gov/superfund/programs/recycle/economicimpacts.html.
[14] Statistics are located in the Redevelopment Economics source above.

contaminant mixtures on human health remains uncertain; however, substances commonly found at Superfund sites have been linked to a variety of human health problems, such as birth defects, infertility, cancer, and changes in neurobehavioral functions. By the end of FY 2017, the agency plans to achieve control of all identified unacceptable human exposures at 18 additional sites (compared to FY 2015 accomplishments), bringing the program's cumulative total of Human Exposure Under Control (HEUC) sites to 1,457. Additionally, the agency expects to achieve Groundwater Migration Under Control (GMUC) at 26 additional sites by the end of FY 2017 (compared to FY 2015 accomplishments), bringing the program's cumulative total to 1,164 sites. As of the end of FY 2015, the EPA controlled groundwater migration and human exposures at 1,138 and 1,439 sites, respectively.

The FY 2017 budget provides $185.2 million for the Superfund Emergency Response and Removal program. The agency is the lead Federal response official for emergency releases of hazardous substances in the inland zone, including the transportation network. In FY 2017, the EPA will continue to support all emergency actions and focus on encouraging viable Potentially Responsible Parties (PRPs), when available, to conduct removal actions. In FY 2017, the EPA will complete or oversee a total of 275 Superfund-lead and PRP-lead removal actions (including voluntary, Administrative Order on Consent, and Unilateral Administrative Order actions).

The Superfund Remedial program is funded at $521 million in FY 2017. The agency will continue to give priority to completing projects at various stages in the response process, such as investigation, remedial design, and remedy construction. This will help support community revitalization and economic redevelopment and will provide funding to initiate cleanup construction work at several construction projects. In FY 2017, the annual targets will be the same as FY 2016, 675 remedial site assessment completions, 105 remedial action project completions, 13 construction completions, and 45 site-wide ready for anticipated use.

The FY 2017 budget provides $37 million for the RCRA Corrective Action program. The EPA works in partnership with states, having authorized 44 states and one territory to directly implement the corrective action program.[15] Resources for state implementation are provided through Hazardous Waste Financial Assistance categorical grants. This program is responsible for overseeing and managing cleanups that protect human health and the environment at active RCRA sites. The agency provides leadership and support to its state partners and serves as lead regulator at a significant, and increasing, number of facilities. States have been challenged in the cleanup program due to downsizing and are looking to the federal program for assistance. As a result and at the request of states, the EPA has resumed, where resources allow, work previously agreed to by states under work-sharing agreements. This trend has been increasing, particularly for sites that have complex issues[16] or for more specialized tasks such as ecological risk assessments.

Through its RCRA Corrective Action program, the EPA and its state partners will issue, update, or maintain RCRA permits for 3,779 hazardous waste facilities. The facilities are a subset of approximately 6,600 sites with corrective action obligations and include some of the most highly contaminated, technically challenging, and potentially threatening sites the EPA confronts in any of its cleanup programs.[17] As of the end of FY 2015, there remained a significant workload to be addressed. Only 28 percent of the 3,779 facilities reached the end goal of completing cleanup, so this left over 2,700 facilities still needing oversight and technical support to reach their final goal of completing site-wide cleanup objectives. Through FY 2015, the EPA controlled human exposures and groundwater migration at 90 and 82 percent of RCRA corrective action facilities, respectively. A critical component of the program is to implement final remedies. For example, in Region 3 over 40 remedies were implemented, enabling 6,500 acres to be ready for reuse. The sites are now being used for a new 22-story office tower, a casino and a potential multi-billion dollar economic development for the Sparrows Point, Maryland facility.

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

[16] For example, vapor intrusion, wetlands contamination or extensive groundwater issues.

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

In FY 2017, the EPA will focus resources on those sites that present the highest risk to human health and the environment and implement actions to end or reduce these threats. The EPA will also place additional focus on identifying facilities where the corrective action process can be considered completed (i.e., where cleanup performance standards have been met, or no further cleanup action is necessary). These activities will be consistent with the programmatic response developed by the agency after a 2011 Government Accountability Office report on the RCRA corrective action program, which also is reflected in revisions to targets for three RCRA Corrective Action performance measures.

LUST Cleanup:

The EPA's LUST cleanup strategy is to prevent future releases of wastes in the environment. Accidents can happen, but proper prevention leads to fewer releases. In FY 2017, the UST program will primarily focus on: inspections; technical assistance; financial assurance mechanisms; safe transition to alternative fuels; implementation in Indian country; bringing petroleum brownfields properties into productive use, and implementing the revised UST regulations.

The UST program has achieved significant success in closing releases since the beginning of the program. Of the approximately 528,000 releases reported since the beginning of the UST program in 1988, approximately 456,000 (or 86.4 percent) have been cleaned up through FY 2015. This means approximately 72,000 releases remain that have not reached cleanup completion. In addition, even though the EPA and our partners have made major progress in reducing the number of new releases that add to this cleanup backlog, thousands of new releases are discovered each year.

However, while the UST program continues to make progress decreasing the overall backlog, the pace of cleanups is declining. In FY 2015, the program completed 9,869 LUST cleanups. Achieving these cleanup rates in the future will be more challenging due to the complexity of remaining sites, an increased state workload, a decrease in available state resources and the increasing costs of cleanups. In FY 2011, the LUST program completed a study of its cleanup backlog. The EPA's backlog study helped identify potential strategies to address the remaining UST releases.[18] The EPA is working with states to develop and implement specific strategies and activities applicable to their particular sites to reduce the UST releases remaining to be cleaned up.

Oil Spill Prevention:

The discharge of oil into U.S. waters can threaten human health, cause severe environmental damage, and create financial loss to businesses and the public. The Oil Spill program helps protect U.S. waters by effectively preventing, preparing for, responding to, and monitoring oil spills. The EPA serves as the lead responder for cleanup of all inland zone spills, including transportation-related spills from pipelines, trucks, and other transportation systems, and provides technical assistance and support to the U.S. Coast Guard for coastal and maritime oil spills. In FY 2017, the EPA will continue to focus efforts on oil spill prevention, preparedness, compliance assistance, and enforcement activities associated with the more than 600 thousand non-transportation-related oil storage facilities that the EPA regulates through its Spill Prevention Control and Countermeasure (SPCC) Program. In addition, the agency will finalize development and begin implementation of the National Oil Database including identifying requirements for electronic submission of Facility Response Plans (FRP) in order to create reporting efficiencies for the agency, states, local government and industry.

In FY 2017, the EPA requests a total of $20.5 million for the Oil Spill Prevention, Preparedness and Response program, a $6.1 million increase over the FY 2016 Enacted Budget. These additional funds will focus on training emergency responders given the increased risks of spills associated with the rapid expansion in production and transportation of crude shale oils. Increased domestic production rates and

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

increased shipment of oil by rail, combined with the volatility hazards associated with crude shale oil, pose new challenges for the EPA and first responders. These oils, such as Bakken and Dilbit, are particularly risky due to their highly explosive nature. Additionally, the EPA will perform inspections of regulated high-risk oil facilities to better implement prevention approaches and to bring into compliance 60 percent of SPCC and FRP inspected facilities found to be non-compliant during the FY 2010 through FY 2016 inspection cycle. The EPA will emphasize emergency preparedness, particularly through the use of unannounced drills and exercises, to ensure facilities and responders can effectively implement response plans. In FY 2015, the EPA was able to bring 79 percent of FRP and 74 percent of SPCC facilities into compliance due to the development of improved guidance and procedures. The program will focus resources on bringing non-compliant facilities into compliance.

Homeland Security:

The EPA's Homeland Security work is an important component of the agency's prevention, protection, and response activities. The FY 2017 budget submission includes $30.3 million to: maintain agency capability to respond effectively to incidents that may involve harmful chemical, biological, and radiological (CBR) substances; maintain the Environmental Response Laboratory Network (ERLN); develop and maintain agency expertise and operational readiness for all phases of consequential management following a CBR incident, specifically with respect to environmental characterization, decontamination, laboratory analyses and clearance; maintain the Emergency Management Portal (EMP); and conduct CBR training for agency responders to improve CBR preparedness.

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

The FY 2017 request for Strengthening Human Health and Environmental Protection in Indian Country is $121.4 million, an increase of nearly $34.0 million over the FY 2016 Enacted Budget.

Few tribes have sought federal environmental program implementation authorities. Small and understaffed Tribal environmental departments, a lack of quality baseline data, and the nuances of Indian law all present challenges to greater environmental protection in Indian country. The EPA Indian Environmental General Assistance Program (GAP) is the primary financial assistance program available to tribes to assist with capacity building and the development of environmental protection programs in Indian country. In FY 2017, the EPA will continue to significantly support environmental capacity in Indian country by providing $96.4 million under the GAP grants. The request includes a $30.9 million increase. This will allow tribes to develop multiple media-specific environmental programs and also will ensure adequate resources for grantees to successfully implement the EPA-Tribal Environmental Plans (ETEPs). Tribal resources are essential to address long-standing challenges to recruit and retain qualified environmental professionals to remote Indian country locations and will assist tribes with the implementation of environmental regulatory programs. In addition, in FY 2017, the agency will continue to support environmental research projects with Tribal colleges and universities that will expand capacity to address issue of concern in Tribal communities. These Tribal EcoAmbassador projects[19] have benefitted the professors and students involved, while demonstrating an ability to focus resources and leverage support within Tribal communities while strengthening Tribal youth.

GAP is a key means by which tribes leverage other EPA, federal, and Tribal funding to increase the overall level of environmental and public health protection per dollar invested. GAP also supports Tribal capacity to directly implement environmental regulatory programs in Indian country consistent with federal environmental law; there are currently 105 "treatment as a state" (TAS) Tribal regulatory approvals in place throughout the nation. Examples of activities eligible for funding under EPA's GAP include: assessing the status of a tribe's environmental conditions; developing Tribal environmental laws, codes, and ordinances; developing Tribal capacity to administer environmental regulatory programs that the EPA may delegate to a

[19] For more information, please refer to http://www.epa.gov/ecoambassadors/tribal.

tribe; conducting public education and outreach efforts to ensure that Tribal communities are informed and able to participate in environmental decision-making; establishing effective communication and coordination programs among federal, state, local, and Tribal environmental officials; and developing the ability to meaningfully participate in Tribal consultation activities with the EPA on environmental issues.

The EPA will continue to support the success of the GAP by continuing to implement new GAP guidance and applying nationally consistent Tribal capacity indicators. The GAP guidance promotes long-range ETEPs to serve as the basis for GAP financial assistance work plans. The EPA also is developing new performance measures based on Tribal capacity indicators to better track the effectiveness of the EPA's technical assistance and other support to tribes as well as to monitor the progress of tribes to develop their own environmental programs. The magnitude of Tribal environmental and human health challenges reinforces the importance of the EPA's commitment to maintaining strong environmental protections in Indian country.

The EPA has a long history of working with other federal agencies to address shared environmental and human health concerns in Indian country. The EPA, the Department of the Interior, the Department of Health and Human Services, the Department of Agriculture, and the Department of Housing and Urban Development have worked through Memoranda of Understandings (MOU) as partners to improve infrastructure on Tribal lands. All five federal partners renewed their commitment to the Infrastructure Task Force in 2013 by signing an MOU to continue federal coordination in delivering water infrastructure, wastewater infrastructure and solid waste management services to Tribal communities. The Infrastructure Task Force will build on prior partner successes, including improved access to funding and reduced administrative burden for Tribal communities through the review and streamlining of agency policies, regulations, and directives as well as improved coordination of technical assistance to water service providers and solid waste managers through regular coordination meetings and web-based tools.

The lack of access to safe drinking water and basic sanitation in Indian Country continues to threaten the public health of American Indian and Alaska Native (AI/AN) communities. According to 2010 data from the Indian Health Service (IHS), approximately 12 percent of AI/AN homes do not have safe water and/or basic sanitation facilities. The efficiencies and partnerships resulting from the Infrastructure Task Force will directly assist tribes with their infrastructure needs. In Alaska, 13 percent of native and rural households are without complete indoor plumbing, a much higher figure than the national average of 0.4 percent (US Census Survey 2012) of occupied homes that lacked complete indoor plumbing. As a result, 2008 data indicates that the age adjusted infectious disease hospitalization rate for Alaska natives was 28 percent higher than the national average, with a higher disparity observed for infants. Infectious disease hospitalizations account for approximately 22 percent of all Tribal and ANV hospitalizations,[20] where lower respiratory tract infections, skin and soft tissue infections, and infections of the kidney, urinary tract, and bladder contribute to most of these health disparities.[21] For more information, please see the web link: http://www.epa.gov/tribalportal/trprograms/infra-water.htm.

On May 4, 2011, the EPA released its policy on consultation and coordination with Indian tribes. The EPA is among the first of the federal agencies to finalize its consultation policy in response to President Obama's first Tribal leaders summit in November 2009 and, following the issuance of Executive Order 13175, to establish regular and meaningful consultation and collaboration with Tribal officials in the development of federal policies that have Tribal implications.

[20] Robert C. Holman, Anianne M Folkema, Rosalyn J. Singleton, John T. Redd, Krista Y. Christensen, Claudia A Steiner, Lawrence B Schonberger, Thomas W. Hennessy, James E. Cheek (2011), *Disparities in Infectious Disease Hospitalizations for American Indian/Alaska Native People*, Public Health Rep. 2011 Jul-Aug; 126(4): 508–521, http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3115210/.

[21] Thomas W. Hennessy, Troy Ritter, Robert C. Holman, Dana L. Bruden, Krista L. Yorita, Lisa Bulkow, James E. Cheek, Rosalyn J. Singleton, and Jeff Smith. The Relationship Between In-Home Water Service and the Risk of Respiratory Tract, Skin, and Gastrointestinal Tract Infections Among Rural Alaska Natives. American Journal of Public Health: November 2008, Vol. 98, No. 11, pp. 2072-2078.
doi: 10.2105/AJPH.2007.115618.

Research

In FY 2017, the Sustainable and Healthy Communities (SHC) program, funded at $146.7 million, will continue to support the EPA's program offices and state and Tribal partners in protecting and restoring land, and providing community decision makers with decision tools to support community health and well-being.

In FY 2017, the SHC program will continue to invest in resources in ongoing research to develop models, databases, metrics and other decision support tools that will empower communities to make decisions regarding sustainable approaches to environmental protection. This will allow the EPA to increase its capacity to provide community-based decision support tools which consider ecosystem goods and services, contaminated sites, multimedia pollutants within environmental justice communities, and the beneficial use of sustainable materials.

The work of the SHC research program falls into four inter-related themes:

- *Decision Support and Innovation* will use decision science, interactive social media, spatial analyses, and sustainability assessment methods to provide communities with tools to frame their decision options, outcomes and potential costs and benefits. For example, the community-based evaluation of ecosystem services in Guanica Bay, Puerto Rico, focused on the use of decision support tools to help the local community better understand its needs and constraints. The use of decision support tools assisted the community in evaluating their options and permits a local prioritization of actions based on a full understanding of the potential consequences of their decisions.

- *Community Well-being: Public Health and Ecosystem Goods and Services* will utilize the sciences of ecosystem services and human health to enable communities to assess how the natural and built environment affects the health and well-being of their residents. This research will address impacts in all communities including communities and tribes that are at risk for disproportionate environmental and health impacts. For example, the EPA has been working with the community surrounding Proctor Creek in Atlanta, Georgia to identify solutions to address a host of challenges, including pervasive street flooding, repeated sewage backups, derelict properties, illegal tire dumping, and bacterial contamination in the creek itself. The resulting "Boone Boulevard Green Street Project," proposed by the City of Atlanta, incorporates green infrastructure elements to reduce stormwater runoff and associated pollution.

- *Sustainable Approaches for Contaminated Sites and Materials Management* will build upon federal, regional and state experiences. This research aims to improve the efficiency and effectiveness of mechanisms that address land and groundwater contamination, including preventing and cleaning up fuel and oil spills. This research also will review and characterize innovative approaches that communities can use to: (1) reduce new sources of contamination; (2) enable recovery of energy, materials, and nutrients from waste; (3) enable brownfields sites to be put to new, economically productive uses that benefit communities; and (4) apply waste management and contaminated sediment remediation technologies in specific geographic locations. For example, analytical ground water models for three-dimensional contaminant transport in aquifers will be developed for predicting contaminant distribution at sites characterized by preferential pathways (high-permeability layers) interacting with surrounding low-permeability zones.

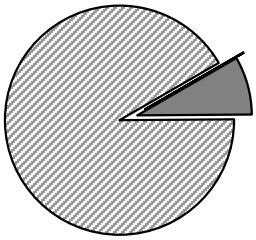
- *Integrated Solutions for Sustainable Outcomes* research will develop methods and data that will allow communities to consider the full costs and benefits of their decisions. For example, SHC will review and characterize systems modeling approaches that communities can use to account for the linkage among waste and materials management, building codes and zoning for land use planning, transportation options, and provision of infrastructure, including water and energy. For example, SHC is using a holistic systems approach (including modeling) to assess the impacts of nitrogen in ecosystems and communities. The approach will account for linkages between atmospheric deposition, precipitation, agricultural activities, surface water/ground water and community decision making.

The SHC research program will also continue to provide research to EPA's remedial project managers and site managers in the EPA's regional offices, as well as community decision-makers, to improve their ability to weigh alternatives, and make decisions on cleaning up contaminated sites. SHC research will aid the EPA regional offices in developing and evaluating methods, approaches, and models to assess and manage contamination at Superfund sites.

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

Goal 4: Ensuring the Safety of Chemicals and Preventing Pollution

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



8.2% of Budget

Resource Summary

(Dollars in Thousands)

	FY 2015 Enacted	FY 2016 Enacted	FY 2017 President's Budget	Difference FY 2016 EN to FY 2017 PresBud
1 - Ensure Chemical Safety	$569,955	$572,794	$624,668	$51,874
2 - Promote Pollution Prevention	$50,537	$50,455	$54,939	$4,484
Goal 4 Total	**$620,492**	**$623,249**	**$679,607**	**$56,358**
Workyears	2,411	2,391	2,405	14

NOTE: Numbers may not add due to rounding.

Introduction

Chemicals are ubiquitous in our everyday lives and products. They are used in the production of everything from our homes and cars to the cell phones we carry and the food we eat. Chemicals often are released into the environment as a result of their manufacture, import, processing, use, and disposal. Vulnerable and underserved populations, including low-income, minority and indigenous populations may be disproportionately impacted by, and thus particularly at risk from, exposure to chemicals.[1,2,3] In addition, research shows that children receive greater relative exposures to chemicals because they inhale or ingest more air, food, and water on a body-weight basis than adults do.[4,5,6,7] The FY 2017 funding level for Ensuring the Safety of Chemicals and Preventing Pollution is $679.6 million, an increase of $56.4 million over the FY 2016 Enacted Budget.

[1] Holistic Risk-based Environmental Decision Making: a Native Perspective (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1241171).
[2] Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations.
[3] Interim Guidance on Considering Environmental Justice During the Development of an Action (http://www.epa.gov/compliance/ej/resources/policy/considering-ej-in-rulemaking-guide-07-2010.pdf).
[4] Guide to Considering Children's Health When Developing EPA Actions: Implementing Executive Order 13045 and EPA's Policy on Evaluating Health Risks to Children (http://yosemite.epa.gov/ochp/ochpweb.nsf/content/ADPguide.htm/$File/EPA_ADP_Guide_508.pdf).
[5] Holistic Risk-based Environmental Decision Making: A native Perspective (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1241171).
[6] Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks
[7] Guide to Considering Children's Health When Developing EPA Actions: Implementing Executive Order 13045 and EPA's Policy on Evaluating Health Risks to Children (http://yosemite.epa.gov/ochp/ochpweb.nsf/content/ADPguide.htm/$File/EPA_ADP_Guide_508.pdf).

Under existing Toxic Substances Control Act (TSCA) authorization, the EPA is charged with the responsibility of assessing the safety of commercial and industrial chemicals and acting upon those chemicals if they pose significant risks to human health or the environment. In FY 2017, $67.2 million is directed to the TSCA Chemical Risk Review and Reduction Program, which will sustain efforts to assess and reduce potential risks from new chemicals before they enter commerce. This increase in funding will continue to support ramping up the program's assessment of existing chemicals, building on the success of FY 2014 and FY 2015, when the first risk assessments on Existing Chemicals under TSCA were completed for five chemicals, the first in 28 years. The program will continue to focus these assessments on TSCA Work Plan and related or similar chemicals, identified as the highest priority for near-term assessment, and will continue work commenced in FY 2015 to act expeditiously, using all available authorities under TSCA, to reduce identified risks. Where data gaps that prevent risk assessments from being completed, the program will seek data to determine the risk of priority chemicals. The EPA also will continue to expand and enhance the quantity, accessibility and usefulness of chemical safety information, thereby building the capacity of the EPA, other regulators, and the public to assess chemical hazards and potential exposures, identify potential risks to human health and the environment, and take appropriate risk reduction action.

The Endocrine Disruptor Screening Program (EDSP), established under authorities contained in the Food Quality Protection Act (FQPA) and the Safe Drinking Water Act (SDWA), is responsible for protecting human health and the environment from risks associated with chemicals with endocrine bioactivity. Under this program, the EPA has introduced groundbreaking new technologies—alternative techniques that use computational toxicology (CompTox) to predict endocrine effects using computer models—allowing the agency to move from screening dozens of chemicals per year to up to 1,000 per year, while moving away from animal testing. While these techniques are first being developed and implemented for endocrine disruptors, they also have potential to shed light on other potential human health and environmental risks identified through toxicity screening.

In FY 2017, the EPA's pesticide licensing program will continue to evaluate new pesticides before they reach the market and ensure that pesticides already in commerce are safe when used in accordance with the label as directed by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the Federal Food, Drug, and Cosmetic Act (FFDCA), and the FQPA. The EPA will register pesticides in a manner that protects consumers, pesticide users, workers who may be exposed to pesticides, children, and other sensitive populations. The program also will continue the registration review process for older pesticides. For all pesticides in review, the EPA will evaluate potential impacts on the environment with particular attention to endangered species and the effects of pesticides on honey bees and other pollinators.

The EPA has a long history of collaboration to address a wide range of domestic and global environmental issues. The EPA envisions that environmental actions in cooperation with international partners can catalyze even greater progress toward protecting our domestic environment. For example, when our trading partners approve the use of new lower-risk pesticides on produce imported from the United States, American farmers can more readily shift toward use of those safer pesticides. In addition, ensuring that trade-related activities sustain environmental protection enhances the ability of our trading partners to protect their environments and develop in a sustainable manner, enhancing other environmental opportunities of mutual interest through effective consultation and collaboration. To advance all of these efforts, the EPA continues to focus on the international priorities of building strong environmental institutions and legal structures, encouraging climate change adaptation and mitigation, improving air quality, expanding access to clean water, reducing exposure to toxic chemicals, and cleaning up e-waste.

Pollution prevention (P2) is central to the EPA's sustainability strategies. In FY 2017, the EPA will continue to foster the development and increased use of P2 solutions to environmental problems that eliminate or reduce pollution, waste and risks at the source. Examples of such solutions include cleaner production processes and technologies, safer "greener" chemicals, materials and products, and improved practices. The agency employs a variety of approaches to achieve these results, including providing technical assistance to businesses, contributing to the development of environmentally-based production standards and purchasing criteria, offering government recognition of effective environmental stewardship actions and accomplishments and offering grants to states, tribes and other entities that advance P2 objectives.

The National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act require the EPA to review Environmental Impact Statements (EISs). Under NEPA, an EIS is required for major federal actions significantly affecting the human environment. The review of each EIS includes assessing options for avoiding or mitigating environmental impacts while making agency comments available to the public and allowing for public input. In FY 2017, in support of its mission, the program will continue to foster cooperation among federal agencies to ensure compliance with applicable environmental statutes, promote better integration of pollution prevention and ecological risk assessment elements into federal programs, and provide technical assistance in developing projects that prevent adverse environmental impacts.

Major FY 2017 Changes

In FY 2017, increased resources will enable the EPA's Chemical Safety Program to accelerate the pace for completing assessments of TSCA Work Plan and related or similar chemicals, as well as support additional or accelerated risk reduction work where completed assessments have identified risks. The EPA expects to complete risk assessments for 21 of these chemicals in FY 2017 if adequate data on risk are available. These expanded resources will allow EPA to initiate assessment on more chemicals and in turn enable the EPA to make greater progress towards its ambitious target for completing by the end of FY 2018 assessments of all 67 original TSCA Work Plan chemicals that remain on the refreshed list.

Additionally, in FY 2017, the EPA's Chemical Safety Program will expand the role of regional offices in the implementation of TSCA. Currently there are only 3 FTE in the Regional Offices focused on TSCA; this investment will bring that number up to 13 FTE. This expansion will start to close a critical gap in the agency's Chemical Safety Program implementation framework as regional offices are uniquely situated to increase stakeholder involvement to ensure that its risk management actions are effective and efficient, and to leverage the efforts of states, tribes, localities and others to help reach the most vulnerable populations that chemical safety rules are intended to protect.

In FY 2017, the Pollution Prevention Program will increase efforts to promote the adoption of the Safer Choice label by product manufacturers and to increase the demand and use of Safer Choice labeled products by retailers, industrial and commercial purchasers, and the public. Additional resources will allow the Safer Choice program to expand its initiative into schools, expand into new product categories and classes, and conduct additional outreach to stakeholders, including manufacturers, retailers, and the public.

In FY 2017, the EPA's Endocrine Disruptor Screening Program (EDSP) will expand the use of alternative testing methodologies (i.e., high-throughput assays and computational tools) to prioritize and screen chemicals based on potential endocrine bioactivity and exposure related to the estrogen, androgen, or thyroid hormone pathways in humans and wildlife. The increased use of alternative testing methodologies will increase the output of screening results within existing resource levels.

The agency coordinates and advances protection of children's health through regulatory development, policy, program implementation, communication and effective results measurement as an explicit part of its mission. In FY 2017 the EPA will continue to coordinate its activities to ensure that policies and programs explicitly consider and use the most up to date data and methods to protect children from public health risks.

Research: Chemical Safety for Sustainability (CSS)

In FY 2017, the CSS program has a net increase of $5.6 million. These increased resources will 1) incorporate advancements in computational chemistry to allow use of information from chemical structures with known bioactivity to other structures with less data (i.e. read-across) in concert with growing international efforts, 2) use the high-throughput hazard and exposure information to begin to evaluate cumulative risk of chemical exposures, 3) expand and extrapolate to novel assays that have relevance to ecological impacts, and 4) demonstrate how the ToxCast/Tox21 data can be used to develop high-throughput risk assessments, in particular for data-poor chemicals.

Agency Priority Goals

The EPA has reached the end of the two-year implementation period for its FY 2014-2015 Agency Priority Goal:

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

The EPA exceeded its target of 250 assessments by completing 299 of the assessments in the areas of focus in the FY 2014-2015 time period. Some achievements toward the goal included:

- First application of ORD CompTox and Tox21 research—Chemical prioritization based on estrogen and androgen bioactivity using high throughput and CompTox methods.
- Introduced the use of high throughput screening and computational models as an alternative to three Tier 1 EDSP assays (published June 16, 2015)
- Accepted Estrogen Receptor Reactivity (ER) Model data for 1,800 chemicals
- Validated test methods, covering a range of mammalian and ecological species, to screen 52 chemicals.
- Met or exceeded pesticides program targets for docket openings, and for registration goals under the Pesticide Registration Improvement Extension Act (PRIA), which includes comprehensive risk assessments.
- Assessments completed for 5 TSCA Work Plan Chemicals to date—the first TSCA assessments completed in 28 years. (The assessment for N-Methylpyrrolidone (NMP) was released in March 2015).

The agency has released its FY 2016-2017 APGs. The Goal 4 FY 2016-2017 APG to help reduce the risk and increase the safety of chemicals is to:

Assess and reduce risks posed by chemicals and promote the use of safer chemicals in commerce. By September 2017, the EPA will complete more than 3,400 assessments of pesticides and other commercially available chemicals to evaluate risks they may pose to human health and the environment. These assessments are essential in determining whether products containing these chemicals can be used safely for commercial, agricultural, and/or industrial uses. For example, assessments can help determine the potential for chemicals to disrupt endocrine systems or to pose risks to honey bees and other pollinators by outdoor use of pesticides.

This APG includes targets for chemical assessments for new chemicals (2,000 assessments), existing chemicals (33 assessments), endocrine disruptors (1,000 screening assessments), and pesticides (104 draft risk assessments and 308 PRIA risk assessments).

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

FY 2017 Activities

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

In FY 2017, $67.2 million is directed to the TSCA Chemical Risk Review and Reduction program to address the safety of new chemicals and existing chemicals, including "legacy" chemicals such as PCBs. The major activity of the New Chemicals Program is the review of approximately 1,000 premanufacture notices annually (including products of biotechnology and new chemical nanoscale materials) and to ensure that

they do not pose unreasonable risks prior to their entry into the U.S. marketplace. In FY 2017, the EPA's toxics program will maintain its 'zero tolerance' goal for preventing the introduction of unsafe new chemicals into commerce.

Existing Chemicals Program activities fall into three major categories: 1) obtaining, managing, and making chemical information public; 2) screening and assessing chemical risks; and 3) taking action to reduce chemical risks. In FY 2017, progress will be made to: expand the amount and usability of TSCA information made available to the public through the ChemView database, a database containing information on chemical health and safety data received by the EPA and the EPA's assessment and regulatory actions for specific chemicals; address high priority existing chemicals already in commerce with a goal of completing assessments of 21 additional TSCA Work Plan Chemicals and similar/related chemicals; and acting expeditiously in using TSCA regulatory authorities to reduce risks identified in those assessments. In FY 2015, the EPA announced the release of a final risk assessment for a widely used paint stripper (N-Methylpyrrolidone (NMP)) and released for public comment Problem Formulations and Initial Assessments for three flame retardant clusters (i.e., groups of similar chemicals that can be used as substitutes by industry). Additionally, the EPA released a Data Needs Assessment for the Brominated Phthalates flame retardant cluster that identifies critical gaps in toxicity, exposure and commercial mixtures data for seven chemicals. The agency will continue to pursue these critical data necessary for risk assessment of this cluster of chemicals, a process that is likely to take several years under the procedures required under TSCA. In FY 2017, the EPA will continue to advance, as appropriate, risk reduction actions in response to completed risk assessments of TSCA Work Plan chemicals and similar/related chemicals, including TSCA Section 6 production and use restriction rules, TSCA Section 5 Significant New Use Rules (SNURs) and other regulatory and non-regulatory approaches to risk reduction.

In FY 2017, the agency will continue to conduct risk reduction activities to further reduce risks from high-risk "legacy" chemicals. The EPA will continue to maintain the resources necessary to enable the agency to meet any continuing obligations under statutes associated with PCBs and other long-standing chemical risks.

The Lead Risk Reduction program and the Categorical Grant Lead program, with $27.6 million in resources (EPM and STAG combined), will continue certifying and recertifying lead-based paint firms capable of implementing lead-safe practices in abatement and renovation, repair and painting (RRP) activities, and will conduct outreach to educate the public about the risks of elevated blood lead levels and encourage testing for children at risk. These efforts are intended to sustain the dramatic progress made to reduce the percentage of children with elevated blood-lead levels illustrated in the figure below.

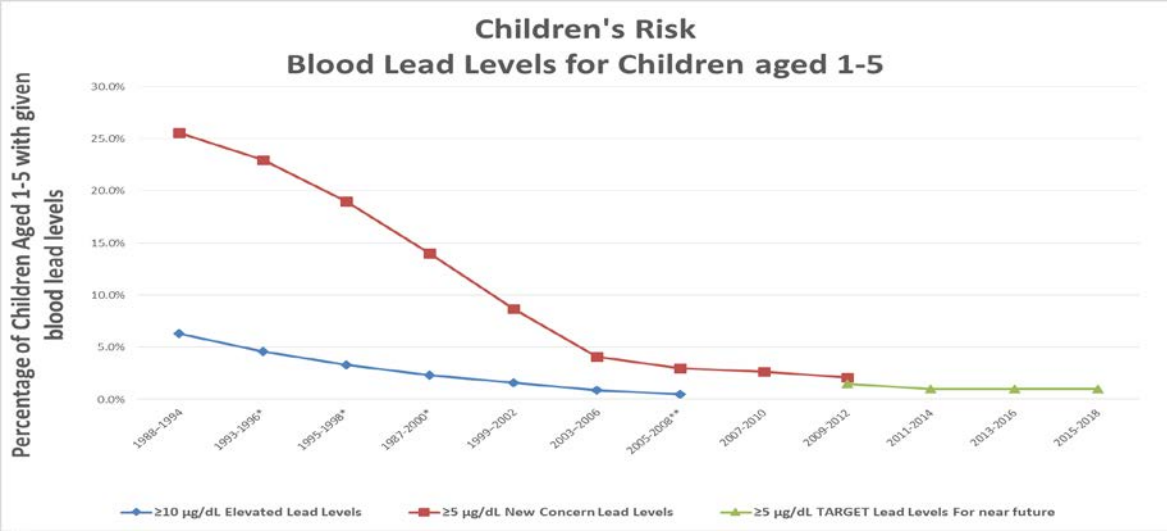


Figure 1: Percentage of Children Aged 1-5 with Given Blood Lead Levels (PM 008)*** Values are not CDC data; interpolated for graphical display only**
**** ≥10 µg/dL estimate is considered unreliable (relative standard error greater than 40 percent).**

In FY 2017, the agency also will continue to collaborate with international partners, through the Organization for Economic Cooperation and Development (OECD), to maximize the efficiency of the EPA's resource use and promote adoption of internationally harmonized test methods for identifying endocrine disrupting chemicals. The EPA represents the U.S. as either the lead or a participant in OECD projects involving the improvement of assay systems including the development of non-animal prioritization and screening methods.

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

In FY 2017, $128.3 million is provided to support the EPA pesticide applications review and registration program. The EPA will invest substantial resources to improve the compliance of pesticide registrations with the Endangered Species Act in accordance with the National Academy of Sciences study/recommendations (http://www.epa.gov/espp/2013/nas.html). A portion of the funding will ensure that pesticides are correctly registered and applied in a manner that protects water quality. The EPA will continue registration and reregistration requirements for antimicrobial pesticides. Together, these programs will minimize exposure to pesticides, maintain a safe and affordable food supply, address public health issues, and minimize property damage that can occur from insects, pests and microbes. The agency's worker protection, certification, and training programs will encourage safe application practices. The EPA also will continue to emphasize the protection of potentially sensitive groups, such as children, by reducing exposures from pesticides used in and around homes, schools, and other public areas.

The EPA will continue to work to improve pollinator health by performing laboratory and technical analysis on pollinators such as honeybees and monarch butterflies as well as related resources such as hive structures. Improving our scientific understanding will allow the agency to more effectively protect pollinators in the future using a range of regulatory and non-regulatory tools. The EPA will continue to assess the effects of pesticides, including neonicotinoids, on bee and other pollinator health and take action as appropriate to protect pollinators, engage state and Tribal agencies in the development of pollinator protection plans, and expedite review of registration applications for new products targeting pests harmful to pollinators

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

In FY 2017, the EPA's Pollution Prevention (P2) program (EPM and STAG combined) is funded at $18.7 million. Preventing pollution at the source is the most cost effective technique for reducing human and environmental exposure to contaminants and associated risks. The P2 program is one of the EPA's primary tools for advancing environmental stewardship and sustainability by federal, state and tribal governments, businesses, communities and individuals. The P2 program seeks to alleviate environmental problems by achieving significant reductions in the generation and use of hazardous materials; reductions in the generation of greenhouse gases; and reductions in the use of water. At the same time, the P2 Program helps businesses and others reduce costs as a result of implementing these preventative approaches. The P2 program's efforts advance the agency's priorities to pursue sustainability, take action on climate change, make a visible difference in communities, and ensure chemical safety.

The P2 program accomplishes its mission by fostering the development of solutions to environmental problems that are designed to eliminate or reduce pollution, waste and risks at the source, such as: cleaner

production processes and technologies; safer, "greener" chemicals, materials and products; and improved practices. The program also promotes the increased use of those solutions through such activities as providing technical assistance and demonstrating the benefits of P2 solutions. For example, the P2 program works with a diverse set of stakeholders to develop voluntary consensus standards for greener products, such as computers, televisions and imaging equipment, and to increase the use of these products in the federal government through federal green purchasing requirements, leading to significant environmental benefits from the reduction of hazardous materials in these products, increased product lifespan and improved energy efficiency. These efforts also support the Cross-Agency Priority Goal on federal actions to address climate change and Executive Order (EO) 13693, *Planning for Federal Sustainability in the Next Decade.*

In FY 2017, the EPA will continue to implement the Safer Choice Program, a product labeling initiative that identifies products that meet rigorous human health and environmental criteria. The Safer Choice Program's label was redesigned in FY 2015 based on an analysis showing that the improved label will more clearly communicate to purchasers the benefits of those products and chemicals. This analysis supports the agency strategy to advance the use of evidence in decision-making by providing consumers with improved information. The new label is currently used on more than 2,000 consumer and institutional products. The P2 Program also will continue to implement the Economy, Energy, and Environment (E3) Partnership and the Green Suppliers Network (GSN), which are collaborations including five other federal agencies, to identify environmental improvements and cost savings and to help manufacturers consider sustainable changes to their business practices.

In FY 2017, the EPA will continue to work with other federal agencies to streamline, modernize, and improve the NEPA process by encouraging early involvement in the project scoping process and promoting approaches for working collaboratively with federal, state, local and Tribal partners on project proposals. The agency will continue to participate in the effort to implement the May 2014 Interagency "Implementation Plan for the Presidential Memorandum on Modernizing Infrastructure Permitting" to meet the goal of reducing permitting and review timelines, while improving environmental and community outcomes. This will include participating in coordinated reviews, developing innovative mitigation approaches (including accounting for and addressing climate change impacts), and promoting the use of IT tools. As a component of this effort, the program will continue to use and promote *NEPAssist*, a geographic information system (GIS) tool developed to assist users (the EPA, other federal agencies, and the public) with environmental reviews. In FY 2017, the proposed budget for NEPA is $17.8 million.

In addition, the EPA will work with agencies as they implement the requirements of FAST-41, which sets out new requirements to streamline infrastructure permitting project reviews.[8] The program will devote resources to participating in additional early permit/NEPA reviews, developing innovative mitigation approaches, and promoting the use of IT tools. The program has been successful at working with other federal agencies to ensure that project proposals are designed in a manner that protects environmental and community resources. E3 Initiative and GSN are expected to grow to include more than 35 state partners.

International Priorities

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

Through these partnerships, the EPA will maintain focus on several priorities. In FY 2017, the EPA will work with other nations to build strong environmental institutions and legal structures with the goal of combating climate change by limiting pollutants and improving air quality in the U.S. and around the world. The EPA will work to expand access to clean water, and protect vulnerable communities from toxic pollution that impacts North America and nations worldwide. Through joint efforts with partners from around the world,

[8] For additional information, refer to: https://www.transportation.gov/fastact

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

In FY 2017, the EPA will enhance sustainability principles through expanded partnership efforts in multilateral forums and in key bilateral relationships. In addition, we will strengthen existing and build new international partnerships to encourage increased international commitment to sustainability goals and to promote a new era of global environmental stewardship based on common interests, shared values, and mutual respect. And finally, the EPA will continue to focus on technical and policy support for global and regional efforts such as strengthening the EPA leadership in the Arctic Council and with other governments to improve policies and implement cooperative projects that address climate change and reduce contamination of the arctic.

Research

The EPA research programs of Chemical Safety for Sustainability (CSS), Human Health Risk Assessment (HHRA), and Homeland Security underpin the analysis of risks and potential health impacts across the broad spectrum of EPA programs and provide the scientific foundation for chemical safety and pollution prevention. In FY 2017, the EPA will further strengthen its planning and delivery of science by continuing an integrated research approach that tackles problems systematically.

FY 2017 presents an opportunity to further enhance and broaden the application of the CSS computational toxicology research to agency activities across diverse regulatory frameworks. Novel applications can add significant efficiency and effectiveness to agency operations. For example, it will increase the pace of screening for endocrine disruptors from a maximum of several dozen per year to about 1,000 per year. These applications complement efforts of the agency's Chemical Safety and Pollution Prevention program to apply high throughput and other 21st Century exposure information to Toxic Substances Control Act (TSCA) chemical prioritization.

In FY 2017, the EPA will continue to tailor, apply and demonstrate newer computational toxicology approaches to increase the pace and efficiency of the Endocrine Disruptor Screening Program (EDSP). Thus far, the EPA has used its computational tools primarily to inform the agency's chemical screening and prioritization needs, in particular in the EDSP. In June 2015, the EPA announced its plans, developed in collaboration with the National Institute of Environmental Health Sciences (NIEHS), to use high throughput screening assays and models to accelerate the implementation of the EDSP.[9] This groundbreaking collaboration among the research and policy segments of EPA presented a key opportunity to demonstrate how emerging data and models can be applied in the specific context of the policy decision (i.e., fit for purpose), accelerating the pace of decision making. These new technology applications will allow us to screen more chemicals in less time, use fewer animals, and reduce costs for taxpayers.

In FY 2017, the EPA will use these technologies to look beyond human health and expand and extrapolate to novel assays that have relevance to impacts affecting ecological health. The agency also will work to customize and adapt emerging technologies for specific application to EPA chemical testing and evaluation systems. Several federal agencies including the NIH[10], the FDA, the EPA, and Defense Advanced Research Projects Agency (DARPA) are currently funding programs that develop models of organs (heart, liver, etc.). The EPA can leverage these investments to evaluate the contributions of environment factors to diseases.

Additionally, the CSS program will continue to apply computational and knowledge-driven approaches to amplify the impact of its research on engineered nanomaterials and on evaluation of emerging safer chemical alternatives. Results of this research will provide guidelines for evaluating potential impacts of

[9] http://www.epa.gov/endo/#announcement.
[10] NIH, "Tissue Chip for Drug Screening", http://www.ncats.nih.gov/tissuechip.

emerging materials from the molecular design phase throughout their lifecycle in their applications to goods and products in commerce. These research directions are in keeping with the environmental health and safety research needs identified by the National Nanotechnology Initiative.[11] Through specific case studies, CSS will further evaluate the impact of nanomaterial exposures through ubiquitous use in consumer products and lifecycle impacts, including discharge to wastewater or impact to biosolids.

Finally, the CSS research program is the lead national research program for the agency's Children's Environmental Health (CEH) Roadmap. Transforming EPA's capacity for considering child-specific vulnerabilities requires that the program apply advanced systems science and integrate diverse emerging data and knowledge in exposure, toxicology, and epidemiology to improve understanding of the role of exposure to environmental factors during early life on health impacts that may occur at any point over the life course.

In FY 2017, the agency's Human Health Risk Assessment Research Program will continue to develop assessments and scientific products that are used extensively by EPA program and regional offices and the risk management community to estimate the potential risk to human health from exposure to environmental contaminants. These include:

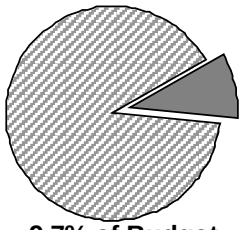
- Integrated Risk Information System health hazard and dose-response assessments;
- Integrated Science Assessments of criteria air pollutants;
- Community Risk; and
- Advancing Analyses and Applications.

The Homeland Security Research Program (HSRP) will continue to enhance the nation's preparedness, response, and recovery capabilities for homeland security incidents and other hazards by providing stakeholders and partners with valuable detection and response analytics for incidents involving chemical, biological, or radiological agents. The program will continue to emphasize the research needed to support response and recovery from wide-area attacks involving radiological agents, nuclear agents, and biothreat agents such as anthrax. In FY 2017, $158.4 million is directed to the Chemical Safety and Sustainability, Human Health Risk Assessment, and Homeland Security Research programs.

[11] "Environmental, Health, and Safety Issues", http://www.nano.gov/you/environmental-health-safety.

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

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



9.7% of Budget

Resource Summary

(Dollars in Thousands)

	FY 2015 Enacted	FY 2016 Enacted	FY 2017 President's Budget	Difference FY 2016 EN to FY 2017 PresBud
1 - Enforce Environmental Laws to Achieve Compliance	$737,846	$742,462	$800,185	$57,723
Goal 5 Total	**$737,846**	**$742,462**	**$800,185**	**$57,723**
Workyears	3,391	3,398	3,403	5

NOTE: Numbers may not add due to rounding

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Introduction

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

On January 18, 2011, President Obama issued a Presidential Memorandum titled "Regulatory Compliance"[1] which reaffirms the importance of effective enforcement and compliance with regulations. It states "[s]ound regulatory enforcement promotes the welfare of Americans in many ways, by increasing public safety, improving working conditions, and protecting the air we breathe and the water we drink. Consistent regulatory enforcement also levels the playing field among regulated entities, ensuring that those that fail to comply with the law do not have an unfair advantage over their law-abiding competitors."

In FY 2017, the EPA seeks to maintain the strength of its core national enforcement and compliance assurance program. Recognizing the challenging fiscal climate at both the federal and state level, the agency will implement strategies that use resources more efficiently and continue to find opportunities to

[1] Please see: http://www.whitehouse.gov/the-press-office/2011/01/18/presidential-memoranda-regulatory-compliance

focus and leverage efforts to assure compliance with environmental laws. Our objective is to pursue vigorous civil and criminal enforcement that targets the most serious water, air, and chemical hazards in communities; assure strong, consistent, and effective enforcement of federal environmental laws nationwide; and to use modern, streamlined techniques, strategies and tools to improve targeting and transparency and increase compliance. The EPA will continue to focus resources on environmental problems where noncompliance is having a significant impact. This strategy means the EPA's top enforcement priority will be pursuing higher impact cases, including large, complex cases that require significant investment and a long-term commitment.

The EPA has achieved impressive pollution control and health benefits through vigorous compliance monitoring and enforcement activities. However, enforcement alone will not address all non-compliance problems. The sheer number of regulated facilities, the contributions of large numbers of smaller sources to environmental problems, and limited resources mean the EPA and states cannot rely solely on the traditional single facility inspection and enforcement approach to ensure widespread compliance.[2] In FY 2017, the agency will continue to implement new and innovative methods to reduce pollution and increase compliance nationwide over the long term.

Towards this end, in FY 2017, the agency will continue to focus efforts on moving forward with the Next Generation Compliance approaches to harness state-of-the-art technology and best practices to make our efforts more efficient and effective. This approach, formalized in the agency's 2014-2018 Strategic Plan, aims to increase compliance with environmental regulations by capitalizing on advances in information technology and advanced pollutant detection technology. It also aligns with the E-Enterprise business strategy, described below, with a focus on process efficiencies in collaboration with states and tribes as systems are modernized. There are five main components to Next Generation Compliance: 1) structuring our regulations and permits to be easier to implement and contain self-implementing mechanisms to achieve higher compliance; 2) using advanced pollutant detection technology to detect pollution as it happens in real-time; 3) moving from paper to electronic reporting to enhance government efficiency and reduce paperwork burden; 4) making pollution and compliance information more accessible, user-friendly, and available to the public to support community awareness and promote facility accountability; and 5) using innovative approaches to enforcement to focus limited resources on the biggest pollution problems. See http://www.epa.gov/compliance/next-generation-compliance.

The use of new detection technologies, combined with a focus on designing rules and permits that are easier to implement, will improve compliance, expand transparency, and protect communities while reducing costs for states, territories, tribes, and regulated facilities. In particular, the burden of monitoring and compliance reporting will be reduced for states, the EPA and others by investing in state-of-the-art monitoring technology and supporting electronic reporting and interaction with the regulated community. This will allow the EPA and states to more effectively deploy inspection resources. For example, in September 2015, the EPA signed the final rule to convert the National Pollutant Discharge Elimination System (NPDES) paper-based reporting system to a more effective and efficient national electronic system, with implementation beginning in calendar year 2016. The rule will benefit the public, regulated facilities, states, and the EPA by providing high quality, complete, and timely data for the NPDES program. The EPA's cost-benefit analysis for the proposed rule estimates that the overall reporting burden will be reduced by 900,000[3] hours when the rule is fully implemented.

Efforts already underway have shown that the Next Generation compliance approaches will have meaningful benefits. For example, the EPA's Region 6 implemented the first federal general permit in the nation that required electronic submission of data through the EPA's electronic reporting tools. Implemented for the Offshore Oil & Gas NPDES General Permit program, this effort uses electronic reporting to reduce reporting burden on permitted entities and the EPA, while allowing for automated tracking of permit limits and reporting requirements, enhancing data quality, and increasing transparency

[2] For additional information, refer to: http://www.epa.gov/sites/production/files/documents/actionplan101409.pdf.
[3] For more information, see "Economic Analysis of the National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Final Rule" [DCN 0197] at http://www.epa.gov/sites/production/files/2015-09/documents/npdesea.pdf.

for regulators and the public. The agency estimates that without deployment of the electronic reporting tools, data entry alone would have cost the agency approximately $2.6 million over a five-year permit cycle. In combination with the experience from other programs that use electronic reporting such as Ohio's NPDES program and the EPA's TRI program, this provides another example of how the benefits are likely to grow as electronic reporting becomes the norm.

The Next Generation Compliance approach complements E-Enterprise for the Environment, a 21st century strategy – jointly governed by states and the EPA – to modernize government agencies' delivery of environmental protection in the United States. The E-Enterprise business strategy is an integral part of an agency-wide effort to launch a new era of state, local, Tribal, and international partnerships. Under this strategy, the agency will streamline its business processes and systems to reduce reporting burden on states and regulated facilities, and improve the effectiveness and efficiency of regulatory programs for the EPA, states and tribes.

In FY 2017, the Enforcement and Compliance Assurance program will continue to align with the E-Enterprise business strategy as an integral part of the agency's focus on increasing the efficiency of the inspection process and modernizing enforcement and compliance data systems. On-going projects, include: 1) partnering with states to develop and implement fillable e-forms for electronically reporting NPDES information; 2) supporting NPDES e-reporting rule implementation and program evaluation; 3) purchasing advanced monitoring equipment; and 4) supporting transparency through the modernized Enforcement and Compliance History Online (ECHO) database and transition of the Air Facility System (AFS) to the Integrated Compliance Information System (ICIS)-Air. Another focus in FY 2017 will be developing a field collection, evidence management, and reporting system for conducting compliance monitoring inspections, which will be guided by initial development in tandem with the states, for the Resource Conservation and Recovery Act (RCRA) program.

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

Major FY 2017 Changes

The FY 2017 request maintains FTE near the lowest levels in the program's history, but includes resources for the EPA to identify and address noncompliance by dedicating resources to data analysis and systems, lab support, equipment for front line enforcement personnel, inspector training, and case support (such as expert witnesses and document management services). These resources will allow our staff to be more efficient and effective at protecting public health and maintaining a level playing field for companies that play by the rules, by assuring compliance with environmental laws.

In FY 2017[4], key themes in the enforcement and compliance budget reflect on-going changes in programmatic direction and efficiencies gained from modernizing our business processes. The EPA continues to improve its business processes under both the E-Enterprise business strategy and Next Generation Compliance based on advances in pollutant monitoring and information technology. Resources across Goal 5 will continue to be focused on advancing efforts in the agency's priorities: Addressing Climate Change and Improving Air Quality, Protecting America's Waters, Cleaning up Our Communities and Advancing Sustainable Development. Our enforcement work also continues to be guided by a focused group of priority efforts known as National Enforcement Initiatives (NEIs). NEIs address serious patterns of noncompliance in areas that are particularly complex and challenging. New

[4] The EPA is providing a total of $591 million for the National Enforcement and Compliance Assurance program. There are additional resources for the program under Goals 2, 3 and 4.

NEIs for FY 2017-2019 will be selected through a collaborative process that EPA started in FY 2015 and will be completed in FY 2016.

Addressing Climate Change and Improving Air Quality

In FY 2017, the EPA will help improve air quality in communities by targeting large pollution sources such as the coal-fired utility, acid, cement, glass and natural gas exploration and production industries that are not complying with environmental laws and regulations. Where the EPA finds non-compliance, the agency will take action to bring them into compliance, which may include requiring facilities to install controls that will benefit communities and/or improve emission monitoring. Enforcement activities which cut toxic air pollution in communities will improve the health of residents, particularly those overburdened by pollution. In FY 2015, the EPA reduced, treated, or eliminated 430 million pounds of air pollutants as a result of concluded enforcement actions. In FY 2017, the agency's budget provides resources to improve the quality and efficiency of compliance inspections, to develop an advanced monitoring equipment program, and to support air regulation implementation. The inspection effort includes the development of tools to allow inspectors to record field observations and transmit inspection reports electronically. Leveraging technology to move to a digitally based process will assist in identification of patterns of problems, compile inspection results in a more timely way, increase transparency on compliance status, and allow for quicker responses where appropriate. The focus of the advanced monitoring program will be on providing communities with monitors, along with technical assistance and training, to allow them to better understand the state of their environment and help local decision makers consider actions that will reduce the risks from pollution. This work will support both the air and water programs.

Protecting America's Waters

In FY 2017, the EPA will continue to work with states to use compliance and enforcement approaches which more effectively and efficiently address the most important water pollution problems. Our focus will include getting raw sewage out of water, cutting pollution related to animal waste, and reducing pollution from stormwater runoff. The EPA also will continue to promote an integrated planning strategy for addressing municipal sewage and stormwater challenges, including the use of lower cost and innovative approaches such as incorporating green infrastructure into enforcement remedies where appropriate. In addition, through its enforcement agreements, the EPA works closely with communities to get the most important work for protecting health accomplished in the most cost effective way, and on a schedule that is practical and affordable. These efforts will help clean up aquatic ecosystems like the Chesapeake Bay and will focus on revitalizing urban communities by protecting and restoring urban waters. These options are proving attractive to communities in achieving Combined Sewer Overflow (CSO) program objectives.[5] Enforcement efforts also will support the goal of assuring clean drinking water for all communities, including for small systems and in Indian country, and improving the quality of Safe Drinking Water Act data reported by states to ensure compliance. In FY 2015, the EPA reduced, treated, or eliminated 90 million pounds of water pollutants as a result of concluded enforcement actions. In FY 2017, the agency's budget directs resources to improve the quality and efficiency of compliance inspections, develop an advanced monitoring equipment program, and test and pilot advanced monitoring technologies, which will support both air and water programs.

Cleaning up Our Communities and Advancing Sustainable Development

In FY 2017, the EPA will continue to protect communities by ensuring that responsible parties conduct Superfund and other cleanups, saving federal dollars for sites where there are no viable contributing parties. Ensuring that responsible parties clean up the sites also reduces direct human exposure to hazardous pollutants and contaminants, provides for long-term human health protection, and ultimately makes contaminated properties available for reuse. The EPA will continue to integrate environmental justice (EJ) considerations into the site remediation enforcement programs by using EJ criteria when enforcing RCRA corrective action requirements to meet RCRA 2020 goals and ensuring that institutional

[5] For additional information, refer to: http://www.epa.gov/npdes/integrated-planning-municipal-stormwater-and-wastewater

controls are implemented at sites with potential environmental justice concerns.

The FY 2017 budget request also provides resources to make comprehensive community-based information available on the EPA's Geo-platform, ensuring that the EPA community investments are mapped and easily accessible to the EPA's staff. The EPA's Geo-platform will lead to better targeting of areas of most environmental concern such as EJ communities.

Agency Priority Goals

The EPA developed FY 2014-2015 Agency Priority Goals (APGs) that advance the agency's priorities and the agency's Strategic Plan. The EPA met the FY 2014-2015 APG for E-Enterprise. In FY 2017, the EPA will build on progress under its updated APG for FY 2016-2017:

E-Enterprise will strengthen environmental protection through business process improvements enabled by joint governance and technology. By September 30, 2017, reduce burden by one million hours, add five new functionalities to the E-Enterprise Portal, and begin development on two projects selected through E-Enterprise Leadership Council joint governance.

To support this APG, the EPA seeks to transform the way business is conducted through the E-Enterprise strategy. A State-EPA E-Enterprise leadership council has been convened and is actively working to prioritize and consolidate projects to maximize the benefits. The priority goal is housed in Goal 5, but E-Enterprise work will occur across the range of agency programs that interact with states, tribes, and industry.

Next Generation Compliance activities contribute to the burden reduction goal. For example, the NPDES e-reporting rule is estimated to reduce burden by approximately 900,000 hours.[6] Additional information on the EPA's Agency Priority Goals can be found at: www.performance.gov.

FY 2017 Activities

***Objective 1**: **Enforce Environmental Laws.** Pursue vigorous civil and criminal enforcement that targets the most serious water, air, and chemical hazards in communities to achieve compliance. Assure strong, consistent, and effective enforcement of federal environmental laws nationwide. Use Next Generation Compliance strategies and tools to increase compliance with environmental laws.*

The EPA continually assesses priorities and embraces new approaches that can help achieve the agency's goals more efficiently and effectively. The EPA's FY 2017 budget submission for the Enforcement and Compliance Assurance program continues to invest resources in high priority areas with the greatest impact on public health, while reducing resources where we have made significant progress (and therefore no longer require as active an enforcement presence), or that, while important, do not address the most substantial impacts to human health. The EPA carefully evaluates program activities and directs limited resources to where they can best protect public health, especially addressing disadvantaged communities; supporting core work of state and Tribal partners; and focusing on the largest pollution problems. The EPA will continue to examine new enforcement approaches through Next Generation Compliance to make the program more efficient and effective.

The agency remains committed to implementing a strong enforcement and compliance program focused on identifying and reducing non-compliance and deterring future violations. To meet this commitment, the program employs a variety of activities, including data collection and analysis, compliance monitoring, compliance assistance, civil and criminal enforcement efforts, and innovative and evidence-based problem-solving approaches. In FY 2017, these efforts will be enhanced through Next Generation

[6] For more information, see "Economic Analysis of the National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Final" [DCN 0197] at http://www.epa.gov/sites/production/files/2015-09/documents/npdesea.pdf.

Compliance approaches that rely on modern reporting and monitoring tools to advance implementation of the agency's priorities and core program work.

Further, in designing and implementing Compliance Monitoring program activities, the EPA tracks and assesses recent studies and evaluations regarding the effectiveness and limits of compliance monitoring and enforcement in promoting compliance and deterrence. The evidence in the literature consistently demonstrates that strong and active compliance monitoring and enforcement increases compliance and reduces pollution.[7] The EPA's Compliance Research Literature web page references many of these studies and reports.[8]

Compliance Monitoring - Targeting the Most Serious Hazards in Communities

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

In FY 2017, the EPA's compliance monitoring activities will be both environmental media-based and sector-based. The EPA's media-based inspections complement those performed by states and tribes, and are a key part of the strategy for meeting the long-term and annual goals established for the air, water, pesticides, toxic substances and hazardous waste programs. The EPA will target its inspections to the highest priority areas and coordinate inspection activity with states and tribes to better leverage resources and enhance collaboration. In FY 2015, the EPA conducted approximately 15,400 federal inspections and evaluations.

In FY 2017, as part of Next Generation Compliance, the agency will continue to enhance the efficiency and effectiveness of the compliance monitoring program by leveraging electronic reporting to reduce paperwork burden, increasing transparency by enhancing systems to report, synthesize, utilize, and disseminate monitoring data, designing analytic tools to help understand and utilize data, and deploying state-of-the-art monitoring equipment to the field. Updating data systems to utilize electronic transmissions from regulated facilities will benefit the compliance monitoring program by allowing the EPA to better apply evidence-based approaches to the program and determine what strategies achieve the best results.

Compliance monitoring includes the EPA's management and use of data systems to oversee its compliance and enforcement programs under the various statutes and programs that the agency enforces. In FY 2017, the EPA will continue the process of enhancing its data systems to integrate with the E-Enterprise business strategy and to support electronic interaction with regulated facilities, providing more comprehensive, accessible data to the public and improving integration of environmental information with health data and other pertinent data sources from other federal agencies and private entities. Building upon ongoing work in FY 2016, the completion of ICIS development in FY 2017 will provide additional functionality to support the agency's Next Generation and E-Enterprise business strategy principles (e.g., electronic reporting). The EPA is also coordinating with the states through E-Enterprise for the expected implementation of Smart Tools for RCRA field inspectors in FY 2016 and the development of these tools for the Clean Water Act and Clean Air Act programs in FY 2017.

In addition, the EPA plans to continue work toward improving transparency and analysis through enhancements of the modernized Enforcement and Compliance History Online (ECHO) in alignment with the E-Enterprise business strategy. Specifically, in FY 2017, the EPA will continue to enhance its analytical capabilities for analyzing large data sets and displaying the results in a geospatial platform (e.g., the EPA's Geo-platform). These efforts will lead to better targeting of areas of most environmental

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

[8] For more information, refer to: http://www.epa.gov/compliance.

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

In FY 2017, the proposed budget for compliance monitoring is slightly more than $112million.

Assuring Strong, Consistent, and Effective Enforcement

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

The Civil Enforcement program develops, litigates and settles administrative and civil judicial cases against serious violators of environmental laws. The EPA also pursues enforcement against federal agency violators to ensure compliance with environmental laws and protection of human health and the environment. In FY 2015, the EPA's enforcement actions required regulated entities to invest more than $7 billion in actions and equipment to control pollution (injunctive relief). Also in FY 2015, the enforcement program obtained a total of $205 million in federal administrative and civil judicial penalties. The EPA's enforcement actions required regulated entities to reduce pollution by an estimated 530 million pounds and treat, minimize, or properly dispose of 500 million pounds of hazardous waste. Sustained and focused enforcement attention to the Safe Drinking Water Act (SDWA) resulted in a 75 percent reduction in the number of public water systems with serious unresolved violations in the past five years; this was the result of combination of federal and state enforcement actions and improved prioritization and tracking processes.

In FY 2017**,** the EPA's civil enforcement program will focus on the national enforcement initiatives, including in communities that may be disproportionately exposed to risks and harm from pollutants in their environment**.** The National Enforcement Initiatives for FY 2017-FY 2019 will be selected through a collaborative process that will be completed in FY 2016. These national initiatives address problems that remain complex and challenging. For example, the FY 2014-FY 2016 initiatives are focused on keeping raw sewage and contaminated stormwater out of our nation's waters, preventing animal waste from contaminating surface and ground waters, and addressing violations of the Clean Air Act New Source Review/Prevention of Significant Deterioration requirements and Air Toxics regulations, RCRA violations at mineral processing facilities, and multi-media problems resulting from energy extraction activities. Information on initiatives, regulatory requirements, enforcement alerts and the EPA's results are available to the public and the regulated community through websites.[9]

As with the compliance monitoring program, the EPA's enforcement program will benefit from receiving electronic reporting of data from regulated facilities and by having more complete and timely data to better evaluate which enforcement approaches are most effective. This utilizes the transformative

[9] For more information, refer to http://www.epa.gov/enforcement/.

information system-based work of the larger E-Enterprise business strategy. The EPA and states will be able to better prioritize enforcement resources based on evidence that indicates where they are most needed such as complex industrial operations requiring physical inspection, repeat violators, cases involving significant harm to human health or the environment, or potential criminal violations.

Next Generation Compliance also has been incorporated into the EPA's national effort to advance environmental justice by protecting communities that have been disproportionately impacted by pollution. For example, most of the infrared gas-imaging cameras (associated with the Marathon settlement) were placed in fuel storage tanks primarily located in environmental justice communities. Next Generation also promotes advanced emissions and pollutant detection technology so that regulated entities, the government, and the public can more easily see pollutant discharges, environmental conditions, and noncompliance. For example, in U.S. v. Marathon Petroleum Corporation, Marathon agreed (in May 2015) to implement innovative technologies using an infrared gas-imaging camera to inspect 14 fuel storage tanks in three states to identify potential defects that may cause excessive emissions of VOCs. If defects are found, Marathon will conduct inspections and perform repairs where necessary.[10]

The Civil Enforcement program also provides support for other priority programs, including the Environmental Justice program. For example, in FY 2015, 35 percent of the enforcement cases initiated by the EPA addressed violations that had occurred in locations with potential environmental justice concerns and many other cases reduced pollution to the benefit of those communities. In addition, the civil enforcement program is helping to implement a compliance and enforcement strategy for the Chesapeake Bay, providing strong oversight to ensure existing regulations are complied with consistently and in a timely manner, and making data on government and facility performance in the Bay watershed accessible and understandable to the public.

In FY 2017, the proposed budget for civil enforcement is $185.7 million.

Criminal Enforcement

Criminal enforcement exemplifies the EPA's commitment to pursue the most serious pollution violations. The EPA's criminal enforcement program investigates and helps prosecute environmental violations that involve intentional, deliberate, or criminal behavior on the part of the violator. The Criminal Enforcement program deters violations of environmental laws and regulations by demonstrating that the regulated community will be held accountable through jail sentences and criminal fines. Bringing criminal cases to court sends a strong deterrence message to potential violators, enhances aggregate compliance with laws and regulations, and protects communities at risk. In FY 2015, the conviction rate for criminal defendants was 92 percent.

To efficiently maximize resources, in FY 2017 the program will use its special agent capacity to identify and investigate cases with the most significant environmental, human health and deterrence impact and reduce case work in lower priority areas. The EPA's criminal enforcement program will target cases across all media that involve serious harm or injury; hazardous or toxic releases; ongoing, repetitive, or multiple releases; serious documented exposure to pollutants; and violators with significant repeat or chronic noncompliance or prior criminal conviction.

In FY 2017, the proposed budget for Criminal Enforcement is $60.4 million.

Forensics Support

The Forensics Support program provides specialized scientific and technical support for the nation's most complex civil and criminal enforcement cases, as well as technical expertise for agency compliance efforts. The work of the EPA's National Enforcement Investigations Center (NEIC) is critical to determining non-compliance and building viable enforcement cases. The NEIC maintains a sophisticated

[10] For more information, refer to http://www.epa.gov/enforcement/marathon-petroleum-corporation-clean-air-settlement.

chemistry laboratory and a corps of highly trained inspectors and scientists with a wide range of environmental scientific expertise. In FY 2017, NEIC will continue to function under rigorous International Standards Organization 17025 requirements for environmental data measurements to maintain its accreditation.

In FY 2017, the proposed budget for Forensics Support is $15.8 million.

Superfund Enforcement

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

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

The Department of Justice supports the EPA's Superfund enforcement program through negotiations and judicial actions to compel PRP cleanup and litigation to recover Trust Fund monies. The agency proposes to provide $21.8 million to the Department of Justice through an Interagency Agreement. This partnership to ensure polluters pay has been very effective. In FY 2015, the EPA reached a settlement or took an enforcement action at 100 percent of non-federal Superfund sites with viable, liable parties. In addition, in FY 2015, private party cleanup commitments were approximately $2 billion, the second highest amount committed to spend on site "cleanup" during a fiscal year, and the EPA billed private parties for $106 million in oversight costs, the highest amount ever billed during a fiscal year. Responsible parties agreed to reimburse approximately $512 million of the EPA's past costs for cleanup work at Superfund sites, the second highest total since the inception of the program.

In FY 2017 the proposed budget for the Superfund and Federal Facilities enforcement programs is $166.1 million.

Partnering with States and Tribes

In FY 2017, the Enforcement and Compliance Assurance program will sustain its environmental enforcement partnerships with states and tribes and work to strengthen their ability to address environmental and public health threats. In FY 2017, the Enforcement and Compliance Assurance program will provide $23.0 million in grants to the states and tribes to assist in the implementation of compliance and enforcement provisions of the Toxic Substances Control Act (TSCA) and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). These grants support state and Tribal compliance activities to protect human health and the environment from harmful chemicals and pesticides. Under the Pesticides Enforcement Grant program, the EPA will continue to provide resources to states and tribes to conduct FIFRA compliance inspections and take appropriate enforcement actions. The Toxic Substances Compliance Grants protect the public and the environment from PCBs, asbestos, and lead-based paint.

Appendices

Environmental Protection Agency
FY 2017 Annual Performance Plan and Congressional Justification

PROGRAM PROJECTS BY PROGRAM AREA
(Dollars in Thousands)

	FY 2015 Actuals	FY 2016 Enacted	FY 2017 Pres Bud	2017 Pres Bud vs. 2016 Enacted
Science & Technology				
Clean Air and Climate				
Clean Air Allowance Trading Programs	$8,593.0	$7,808.0	$7,808.0	$0.0
Climate Protection Program	$7,353.0	$8,018.0	$8,127.0	$109.0
Federal Support for Air Quality Management	$7,530.8	$7,467.0	$8,624.0	$1,157.0
Federal Vehicle and Fuels Standards and Certification	$107,606.3	$93,247.0	$103,595.0	$10,348.0
Subtotal, Clean Air and Climate	**$131,083.1**	**$116,540.0**	**$128,154.0**	**$11,614.0**
Indoor Air and Radiation				
Indoor Air: Radon Program	$183.3	$172.0	$0.0	($172.0)
Radiation: Protection	$2,129.4	$1,835.0	$3,062.0	$1,227.0
Radiation: Response Preparedness	$3,788.3	$3,781.0	$4,034.0	$253.0
Reduce Risks from Indoor Air	$309.9	$209.0	$414.0	$205.0
Subtotal, Indoor Air and Radiation	**$6,410.9**	**$5,997.0**	**$7,510.0**	**$1,513.0**
Enforcement				
Forensics Support	$14,151.1	$13,669.0	$14,608.0	$939.0
Homeland Security				
Homeland Security: Critical Infrastructure Protection	$10,786.3	$10,517.0	$10,904.0	$387.0
Homeland Security: Preparedness, Response, and Recovery	$27,005.7	$26,054.0	$25,696.0	($358.0)
Homeland Security: Protection of EPA Personnel and Infrastructure	$541.0	$552.0	$605.0	$53.0
Subtotal, Homeland Security	**$38,333.0**	**$37,123.0**	**$37,205.0**	**$82.0**
IT / Data Management / Security				
Information Security	$100.0	$0.0	$0.0	$0.0
IT / Data Management	$3,171.0	$3,089.0	$3,092.0	$3.0
Subtotal, IT / Data Management / Security	**$3,271.0**	**$3,089.0**	**$3,092.0**	**$3.0**
Operations and Administration				
Facilities Infrastructure and Operations	$67,222.2	$68,339.0	$78,447.0	$10,108.0
Pesticides Licensing				
Pesticides: Protect Human Health from Pesticide Risk	$2,880.9	$3,128.0	$2,887.0	($241.0)

	FY 2015 Actuals	FY 2016 Enacted	FY 2017 Pres Bud	2017 Pres Bud vs. 2016 Enacted
Pesticides: Protect the Environment from Pesticide Risk	$1,900.2	$2,328.0	$1,854.0	($474.0)
Pesticides: Realize the Value of Pesticide Availability	$552.4	$571.0	$548.0	($23.0)
Subtotal, Pesticides Licensing	**$5,333.5**	**$6,027.0**	**$5,289.0**	**($738.0)**
Research: Air, Climate and Energy				
Research: Air, Climate and Energy	$84,453.4	$91,906.0	$101,151.0	$9,245.0
Research: Safe and Sustainable Water Resources				
Research: Safe and Sustainable Water Resources	$102,249.4	$107,434.0	$106,257.0	($1,177.0)
Research: Sustainable Communities				
Research: Sustainable and Healthy Communities	$138,347.5	$139,975.0	$134,327.0	($5,648.0)
Research: Chemical Safety and Sustainability				
Human Health Risk Assessment	$39,071.5	$37,602.0	$39,259.0	$1,657.0
Research: Chemical Safety and Sustainability				
Endocrine Disruptors	$17,772.9	$16,253.0	$15,381.0	($872.0)
Computational Toxicology	$20,268.7	$21,409.0	$25,744.0	$4,335.0
Research: Chemical Safety and Sustainability (other activities)	$53,017.8	$51,666.0	$53,837.0	$2,171.0
Subtotal, Research: Chemical Safety and Sustainability	$91,059.4	$89,328.0	$94,962.0	$5,634.0
Subtotal, Research: Chemical Safety and Sustainability	**$130,130.9**	**$126,930.0**	**$134,221.0**	**$7,291.0**
Water: Human Health Protection				
Drinking Water Programs	$3,487.4	$3,519.0	$3,923.0	$404.0
Congressional Priorities				
Water Quality Research and Support Grants	$4,119.0	$14,100.0	$0.0	($14,100.0)
Total, Science & Technology	**$728,592.4**	**$734,648.0**	**$754,184.0**	**$19,536.0**
Environmental Program & Management				
Clean Air and Climate				
Clean Air Allowance Trading Programs	$20,374.3	$16,143.0	$18,807.0	$2,664.0
Climate Protection Program	$85,276.8	$95,436.0	$107,761.0	$12,325.0
Federal Stationary Source Regulations	$25,647.9	$22,943.0	$37,893.0	$14,950.0
Federal Support for Air Quality Management	$122,762.3	$124,743.0	$162,374.0	$37,631.0
Stratospheric Ozone: Domestic Programs	$5,675.3	$4,915.0	$5,082.0	$167.0
Stratospheric Ozone: Multilateral Fund	$8,913.0	$8,928.0	$9,057.0	$129.0
Subtotal, Clean Air and Climate	**$268,649.6**	**$273,108.0**	**$340,974.0**	**$67,866.0**
Indoor Air and Radiation				

	FY 2015 Actuals	FY 2016 Enacted	FY 2017 Pres Bud	2017 Pres Bud vs. 2016 Enacted
Indoor Air: Radon Program	$2,946.8	$2,910.0	$3,413.0	$503.0
Radiation: Protection	$8,167.4	$8,443.0	$8,975.0	$532.0
Radiation: Response Preparedness	$2,535.7	$2,550.0	$3,333.0	$783.0
Reduce Risks from Indoor Air	$16,607.2	$13,733.0	$14,187.0	$454.0
Subtotal, Indoor Air and Radiation	**$30,257.1**	**$27,636.0**	**$29,908.0**	**$2,272.0**
Brownfields				
Brownfields	$25,055.0	$25,593.0	$25,906.0	$313.0
Compliance				
Compliance Monitoring	$103,440.4	$101,665.0	$111,270.0	$9,605.0
Enforcement				
Civil Enforcement	$169,963.4	$171,377.0	$182,497.0	$11,120.0
Criminal Enforcement	$47,853.0	$46,313.0	$52,572.0	$6,259.0
Environmental Justice	$7,123.5	$6,737.0	$15,291.0	$8,554.0
NEPA Implementation	$15,586.2	$16,210.0	$17,758.0	$1,548.0
Subtotal, Enforcement	**$240,526.1**	**$240,637.0**	**$268,118.0**	**$27,481.0**
Geographic Programs				
Geographic Program: Chesapeake Bay	$86,722.6	$73,000.0	$70,000.0	($3,000.0)
Geographic Program: Gulf of Mexico	$2,799.2	$4,482.0	$3,983.0	($499.0)
Geographic Program: Lake Champlain	$4,396.0	$4,399.0	$1,399.0	($3,000.0)
Geographic Program: Long Island Sound	$3,938.3	$3,940.0	$2,893.0	($1,047.0)
Geographic Program: Other				
Lake Pontchartrain	$948.0	$948.0	$948.0	$0.0
S.New England Estuary (SNEE)	$4,989.8	$5,000.0	$5,000.0	$0.0
Geographic Program: Other (other activities)	$1,357.4	$1,445.0	$965.0	($480.0)
Subtotal, Geographic Program: Other	$7,295.2	$7,393.0	$6,913.0	($480.0)
Great Lakes Restoration	$289,507.2	$300,000.0	$250,000.0	($50,000.0)
Geographic Program: South Florida	$1,707.8	$1,704.0	$1,339.0	($365.0)
Geographic Program: San Francisco Bay	$9,277.4	$4,819.0	$4,040.0	($779.0)
Geographic Program: Puget Sound	$27,904.0	$28,000.0	$30,034.0	$2,034.0
Subtotal, Geographic Programs	**$433,547.7**	**$427,737.0**	**$370,601.0**	**($57,136.0)**
Homeland Security				
Homeland Security: Communication and Information	$3,291.5	$3,877.0	$4,106.0	$229.0
Homeland Security: Critical Infrastructure Protection	$1,147.3	$972.0	$1,020.0	$48.0
Homeland Security: Protection of EPA Personnel and Infrastructure	$5,610.7	$5,346.0	$6,392.0	$1,046.0
Subtotal, Homeland Security	**$10,049.5**	**$10,195.0**	**$11,518.0**	**$1,323.0**

	FY 2015 Actuals	FY 2016 Enacted	FY 2017 Pres Bud	2017 Pres Bud vs. 2016 Enacted
Information Exchange / Outreach				
State and Local Prevention and Preparedness	$17,942.3	$15,318.0	$23,735.0	$8,417.0
TRI / Right to Know	$14,639.3	$13,882.0	$14,834.0	$952.0
Tribal - Capacity Building	$13,871.6	$14,385.0	$15,502.0	$1,117.0
Executive Management and Operations	$46,780.2	$47,019.0	$49,537.0	$2,518.0
Environmental Education	$9,578.7	$8,702.0	$11,157.0	$2,455.0
Exchange Network	$18,395.0	$17,016.0	$25,466.0	$8,450.0
Small Minority Business Assistance	$1,686.6	$1,670.0	$2,015.0	$345.0
Small Business Ombudsman	$1,876.4	$1,999.0	$2,357.0	$358.0
Children and Other Sensitive Populations: Agency Coordination	$6,194.2	$6,548.0	$7,842.0	$1,294.0
Subtotal, Information Exchange / Outreach	**$130,964.3**	**$126,539.0**	**$152,445.0**	**$25,906.0**
International Programs				
US Mexico Border	$3,503.6	$3,063.0	$4,760.0	$1,697.0
International Sources of Pollution	$6,364.8	$6,430.0	$7,329.0	$899.0
Trade and Governance	$5,715.1	$5,907.0	$6,010.0	$103.0
Subtotal, International Programs	**$15,583.5**	**$15,400.0**	**$18,099.0**	**$2,699.0**
IT / Data Management / Security				
Information Security	$6,981.9	$28,186.0	$21,138.0	($7,048.0)
IT / Data Management	$82,204.2	$83,950.0	$105,836.0	$21,886.0
Subtotal, IT / Data Management / Security	**$89,186.1**	**$112,136.0**	**$126,974.0**	**$14,838.0**
Legal / Science / Regulatory / Economic Review				
Integrated Environmental Strategies	$12,835.1	$11,491.0	$27,407.0	$15,916.0
Administrative Law	$4,507.4	$4,774.0	$4,710.0	($64.0)
Alternative Dispute Resolution	$1,272.5	$1,045.0	$1,255.0	$210.0
Civil Rights Program	$10,113.3	$10,071.0	$12,338.0	$2,267.0
Legal Advice: Environmental Program	$45,980.5	$48,565.0	$53,021.0	$4,456.0
Legal Advice: Support Program	$15,046.8	$15,480.0	$19,327.0	$3,847.0
Regional Science and Technology	$2,262.1	$1,532.0	$2,995.0	$1,463.0
Science Advisory Board	$4,248.0	$3,882.0	$5,556.0	$1,674.0
Regulatory/Economic-Management and Analysis	$14,916.4	$14,574.0	$19,074.0	$4,500.0
Subtotal, Legal / Science / Regulatory / Economic Review	**$111,182.1**	**$111,414.0**	**$145,683.0**	**$34,269.0**
Operations and Administration				
Central Planning, Budgeting, and Finance	$74,705.6	$72,184.0	$76,674.0	$4,490.0
Facilities Infrastructure and Operations	$313,026.1	$311,540.0	$329,281.0	$17,741.0
Acquisition Management	$31,443.4	$30,464.0	$35,298.0	$4,834.0

	FY 2015 Actuals	FY 2016 Enacted	FY 2017 Pres Bud	2017 Pres Bud vs. 2016 Enacted
Human Resources Management	$44,408.6	$43,267.0	$50,630.0	$7,363.0
Financial Assistance Grants / IAG Management	$26,333.8	$25,296.0	$28,433.0	$3,137.0
Subtotal, Operations and Administration	**$489,917.5**	**$482,751.0**	**$520,316.0**	**$37,565.0**
Pesticides Licensing				
Science Policy and Biotechnology	$1,326.0	$1,174.0	$1,444.0	$270.0
Pesticides: Protect Human Health from Pesticide Risk	$55,204.4	$57,809.0	$60,372.0	$2,563.0
Pesticides: Protect the Environment from Pesticide Risk	$34,816.4	$37,293.0	$42,235.0	$4,942.0
Pesticides: Realize the Value of Pesticide Availability	$8,642.4	$6,086.0	$6,845.0	$759.0
Subtotal, Pesticides Licensing	**$99,989.2**	**$102,362.0**	**$110,896.0**	**$8,534.0**
Resource Conservation and Recovery Act (RCRA)				
RCRA: Corrective Action	$36,018.5	$36,930.0	$37,057.0	$127.0
RCRA: Waste Management				
eManifest	($11.7)	$0.0	$0.0	$0.0
RCRA: Waste Management (other activities)	$58,367.4	$59,098.0	$62,842.0	$3,744.0
Subtotal, RCRA: Waste Management	$58,355.7	$59,098.0	$62,842.0	$3,744.0
RCRA: Waste Minimization & Recycling	$8,066.8	$8,849.0	$10,809.0	$1,960.0
Subtotal, Resource Conservation and Recovery Act (RCRA)	**$102,441.0**	**$104,877.0**	**$110,708.0**	**$5,831.0**
Toxics Risk Review and Prevention				
Endocrine Disruptors	$11,502.9	$7,553.0	$4,329.0	($3,224.0)
Pollution Prevention Program	$12,960.5	$13,140.0	$13,930.0	$790.0
Toxic Substances: Chemical Risk Management	($1.6)	$0.0	$0.0	$0.0
Toxic Substances: Chemical Risk Review and Reduction	$58,721.1	$58,554.0	$67,186.0	$8,632.0
Toxic Substances: Lead Risk Reduction Program	$14,140.8	$13,275.0	$13,598.0	$323.0
Subtotal, Toxics Risk Review and Prevention	**$97,323.7**	**$92,522.0**	**$99,043.0**	**$6,521.0**
Underground Storage Tanks (LUST / UST)				
LUST / UST	$12,036.0	$11,295.0	$11,612.0	$317.0
Water: Ecosystems				
National Estuary Program / Coastal Waterways	$27,528.5	$26,723.0	$27,191.0	$468.0
Wetlands	$20,920.3	$21,065.0	$23,668.0	$2,603.0
Subtotal, Water: Ecosystems	**$48,448.8**	**$47,788.0**	**$50,859.0**	**$3,071.0**
Water: Human Health Protection				
Beach / Fish Programs	$2,412.4	$1,982.0	$775.0	($1,207.0)
Drinking Water Programs	$97,916.7	$96,525.0	$108,662.0	$12,137.0

	FY 2015 Actuals	FY 2016 Enacted	FY 2017 Pres Bud	2017 Pres Bud vs. 2016 Enacted
Subtotal, Water: Human Health Protection	**$100,329.1**	**$98,507.0**	**$109,437.0**	**$10,930.0**
Water Quality Protection				
Marine Pollution	$10,363.5	$10,161.0	$10,313.0	$152.0
Surface Water Protection	$199,425.7	$200,256.0	$228,213.0	$27,957.0
Subtotal, Water Quality Protection	**$209,789.2**	**$210,417.0**	**$238,526.0**	**$28,109.0**
Congressional Priorities				
Water Quality Research and Support Grants	$12,700.0	$12,700.0	$0.0	($12,700.0)
Total, Environmental Program & Management	**$2,631,415.9**	**$2,635,279.0**	**$2,852,893.0**	**$217,614.0**
Inspector General				
Audits, Evaluations, and Investigations				
Audits, Evaluations, and Investigations	$42,542.3	$41,489.0	$51,527.0	$10,038.0
Total, Inspector General	**$42,542.3**	**$41,489.0**	**$51,527.0**	**$10,038.0**
Building and Facilities				
Homeland Security				
Homeland Security: Protection of EPA Personnel and Infrastructure	$7,957.7	$6,676.0	$7,875.0	$1,199.0
Operations and Administration				
Facilities Infrastructure and Operations	$33,326.3	$35,641.0	$44,203.0	$8,562.0
Total, Building and Facilities	**$41,284.0**	**$42,317.0**	**$52,078.0**	**$9,761.0**
Hazardous Substance Superfund				
Indoor Air and Radiation				
Radiation: Protection	$1,869.5	$1,985.0	$2,182.0	$197.0
Audits, Evaluations, and Investigations				
Audits, Evaluations, and Investigations	$9,959.3	$9,939.0	$8,778.0	($1,161.0)
Compliance				
Compliance Monitoring	$1,001.7	$995.0	$1,099.0	$104.0
Enforcement				
Criminal Enforcement	$6,996.9	$7,124.0	$7,824.0	$700.0
Environmental Justice	$605.1	$545.0	$612.0	$67.0
Forensics Support	$2,439.5	$1,089.0	$1,150.0	$61.0
Superfund: Enforcement	$154,870.8	$150,628.0	$158,619.0	$7,991.0

	FY 2015 Actuals	FY 2016 Enacted	FY 2017 Pres Bud	2017 Pres Bud vs. 2016 Enacted
Superfund: Federal Facilities Enforcement	$6,730.0	$6,989.0	$7,452.0	$463.0
Subtotal, Enforcement	**$171,642.3**	**$166,375.0**	**$175,657.0**	**$9,282.0**
Homeland Security				
Homeland Security: Preparedness, Response, and Recovery	$39,405.1	$35,276.0	$31,503.0	($3,773.0)
Homeland Security: Protection of EPA Personnel and Infrastructure	$1,351.7	$1,086.0	$1,113.0	$27.0
Subtotal, Homeland Security	**$40,756.8**	**$36,362.0**	**$32,616.0**	**($3,746.0)**
Information Exchange / Outreach				
Exchange Network	$1,321.1	$1,328.0	$1,366.0	$38.0
IT / Data Management / Security				
Information Security	$541.5	$6,083.0	$4,704.0	($1,379.0)
IT / Data Management	$13,865.7	$13,802.0	$15,437.0	$1,635.0
Subtotal, IT / Data Management / Security	**$14,407.2**	**$19,885.0**	**$20,141.0**	**$256.0**
Legal / Science / Regulatory / Economic Review				
Alternative Dispute Resolution	$748.8	$675.0	$767.0	$92.0
Legal Advice: Environmental Program	$735.5	$578.0	$511.0	($67.0)
Subtotal, Legal / Science / Regulatory / Economic Review	**$1,484.3**	**$1,253.0**	**$1,278.0**	**$25.0**
Operations and Administration				
Central Planning, Budgeting, and Finance	$23,542.1	$22,126.0	$24,025.0	$1,899.0
Facilities Infrastructure and Operations	$77,680.0	$74,278.0	$70,960.0	($3,318.0)
Acquisition Management	$20,910.2	$22,461.0	$24,468.0	$2,007.0
Human Resources Management	$7,683.0	$6,345.0	$8,020.0	$1,675.0
Financial Assistance Grants / IAG Management	$2,778.5	$2,895.0	$3,135.0	$240.0
Subtotal, Operations and Administration	**$132,593.8**	**$128,105.0**	**$130,608.0**	**$2,503.0**
Research: Sustainable Communities				
Research: Sustainable and Healthy Communities	$14,611.0	$14,032.0	$11,463.0	($2,569.0)
Research: Chemical Safety and Sustainability				
Human Health Risk Assessment	$2,618.7	$2,843.0	$2,824.0	($19.0)
Superfund Cleanup				
Superfund: Emergency Response and Removal	$191,026.5	$181,306.0	$185,233.0	$3,927.0
Superfund: EPA Emergency Preparedness	$8,248.3	$7,636.0	$7,931.0	$295.0
Superfund: Federal Facilities	$23,212.2	$21,125.0	$26,770.0	$5,645.0
Superfund: Remedial	$560,891.9	$501,000.0	$521,043.0	$20,043.0

	FY 2015 Actuals	FY 2016 Enacted	FY 2017 Pres Bud	2017 Pres Bud vs. 2016 Enacted
Subtotal, Superfund Cleanup	**$783,378.9**	**$711,067.0**	**$740,977.0**	**$29,910.0**
Total, Hazardous Substance Superfund	**$1,175,644.6**	**$1,094,169.0**	**$1,128,989.0**	**$34,820.0**
Leaking Underground Storage Tanks				
Enforcement				
Civil Enforcement	$588.1	$620.0	$668.0	$48.0
Operations and Administration				
Central Planning, Budgeting, and Finance	$404.5	$424.0	$430.0	$6.0
Facilities Infrastructure and Operations	$757.9	$783.0	$1,101.0	$318.0
Acquisition Management	$160.8	$145.0	$138.0	($7.0)
Subtotal, Operations and Administration	**$1,323.2**	**$1,352.0**	**$1,669.0**	**$317.0**
Underground Storage Tanks (LUST / UST)				
LUST / UST	$9,608.4	$9,240.0	$9,322.0	$82.0
LUST Cooperative Agreements	$55,573.9	$55,040.0	$54,402.0	($638.0)
LUST Prevention	$25,369.8	$25,369.0	$27,859.0	$2,490.0
Subtotal, Underground Storage Tanks (LUST / UST)	**$90,552.1**	**$89,649.0**	**$91,583.0**	**$1,934.0**
Research: Sustainable Communities				
Research: Sustainable and Healthy Communities	$284.5	$320.0	$365.0	$45.0
Total, Leaking Underground Storage Tanks	**$92,747.9**	**$91,941.0**	**$94,285.0**	**$2,344.0**
Inland Oil Spill Programs				
Compliance				
Compliance Monitoring	$136.3	$139.0	$160.0	$21.0
Enforcement				
Civil Enforcement	$2,438.4	$2,413.0	$2,492.0	$79.0
Oil				
Oil Spill: Prevention, Preparedness and Response	$14,500.7	$14,409.0	$20,461.0	$6,052.0
Operations and Administration				
Facilities Infrastructure and Operations	$498.0	$584.0	$1,763.0	$1,179.0
Research: Sustainable Communities				
Research: Sustainable and Healthy Communities	$696.4	$664.0	$534.0	($130.0)
Total, Inland Oil Spill Programs	**$18,269.8**	**$18,209.0**	**$25,410.0**	**$7,201.0**

	FY 2015 Actuals	FY 2016 Enacted	FY 2017 Pres Bud	2017 Pres Bud vs. 2016 Enacted
State and Tribal Assistance Grants				
State and Tribal Assistance Grants (STAG)				
Infrastructure Assistance: Alaska Native Villages	$9,821.9	$20,000.0	$17,000.0	($3,000.0)
Brownfields Projects	$88,086.1	$80,000.0	$90,000.0	$10,000.0
Infrastructure Assistance: Clean Water SRF	$1,438,247.3	$1,393,887.0	$979,500.0	($414,387.0)
Infrastructure Assistance: Drinking Water SRF	$907,052.9	$863,233.0	$1,020,500.0	$157,267.0
Infrastructure Assistance: Mexico Border	$7,232.1	$10,000.0	$5,000.0	($5,000.0)
Diesel Emissions Reduction Grant Program	$36,139.1	$50,000.0	$10,000.0	($40,000.0)
Targeted Airshed Grants	$0.0	$20,000.0	$0.0	($20,000.0)
Subtotal, State and Tribal Assistance Grants (STAG)	**$2,486,579.4**	**$2,437,120.0**	**$2,122,000.0**	**($315,120.0)**
Categorical Grants				
Categorical Grant: Nonpoint Source (Sec. 319)	$165,685.9	$164,915.0	$164,915.0	$0.0
Categorical Grant: Public Water System Supervision (PWSS)	$102,021.2	$101,963.0	$109,700.0	$7,737.0
Categorical Grant: State and Local Air Quality Management	$231,120.5	$228,219.0	$268,229.0	$40,010.0
Categorical Grant: Radon	$8,266.7	$8,051.0	$0.0	($8,051.0)
Categorical Grant: Pollution Control (Sec. 106)				
Monitoring Grants	$16,867.3	$17,848.0	$18,500.0	$652.0
Categorical Grant: Pollution Control (Sec. 106) (other activities)	$212,663.2	$212,958.0	$227,664.0	$14,706.0
Subtotal, Categorical Grant: Pollution Control (Sec. 106)	$229,530.5	$230,806.0	$246,164.0	$15,358.0
Categorical Grant: Wetlands Program Development	$16,713.2	$14,661.0	$17,661.0	$3,000.0
Categorical Grant: Underground Injection Control (UIC)	$11,130.5	$10,506.0	$10,506.0	$0.0
Categorical Grant: Pesticides Program Implementation	$12,747.8	$12,701.0	$13,201.0	$500.0
Categorical Grant: Lead	$14,184.9	$14,049.0	$14,049.0	$0.0
Categorical Grant: Hazardous Waste Financial Assistance	$101,311.3	$99,693.0	$99,693.0	$0.0
Categorical Grant: Pesticides Enforcement	$18,012.7	$18,050.0	$18,050.0	$0.0
Categorical Grant: Pollution Prevention	$4,471.0	$4,765.0	$4,765.0	$0.0
Categorical Grant: Toxics Substances Compliance	$4,817.4	$4,919.0	$4,919.0	$0.0
Categorical Grant: Tribal General Assistance Program	$66,416.6	$65,476.0	$96,375.0	$30,899.0
Categorical Grant: Underground Storage Tanks	$1,494.0	$1,498.0	$2,498.0	$1,000.0
Categorical Grant: Tribal Air Quality Management	$13,610.5	$12,829.0	$12,829.0	$0.0
Categorical Grant: Environmental Information	$12,170.9	$9,646.0	$25,346.0	$15,700.0
Categorical Grant: Beaches Protection	$9,868.1	$9,549.0	$0.0	($9,549.0)
Categorical Grant: Brownfields	$48,202.5	$47,745.0	$49,500.0	$1,755.0
Categorical Grant: Multipurpose Grants	$0.0	$21,000.0	$0.0	($21,000.0)

	FY 2015 Actuals	FY 2016 Enacted	FY 2017 Pres Bud	2017 Pres Bud vs. 2016 Enacted
Subtotal, Categorical Grants	**$1,071,776.2**	**$1,081,041.0**	**$1,158,400.0**	**$77,359.0**
Congressional Priorities				
Congressionally Mandated Projects	$14,797.9	$0.0	$0.0	$0.0
Total, State and Tribal Assistance Grants	**$3,573,153.5**	**$3,518,161.0**	**$3,280,400.0**	**($237,761.0)**
Hazardous Waste Electronic Manifest System Fund				
Resource Conservation and Recovery Act (RCRA)				
RCRA: Waste Management	$1,468.6	$3,674.0	$7,433.0	$3,759.0
Total, Hazardous Waste Electronic Manifest System Fund	**$1,468.6**	**$3,674.0**	**$7,433.0**	**$3,759.0**
Water Infrastructure Finance and Innovation Program				
Water Quality Protection				
Water Infrastructure Finance and Innovation	$0.0	$0.0	$20,000.0	$20,000.0
Total, Water Infrastructure Finance and Innovation Program	**$0.0**	**$0.0**	**$20,000.0**	**$20,000.0**
SUB-TOTAL, EPA	**$8,305,119.0**	**$8,179,887.0**	**$8,267,199.0**	**$87,312.0**
Rescission of Prior Year Funds	$0.0	($40,000.0)	$0.0	$40,000.0
SUB-TOTAL, EPA (INCLUDING RESCISSIONS)	**$8,305,119.0**	**$8,139,887.0**	**$8,267,199.0**	**$127,312.0**
Hurricane Sandy Supplemental	$686.0	$0.0	$0.0	$0.0
TOTAL, EPA	**$8,305,805.0**	**$8,139,887.0**	**$8,267,199.0**	**$127,312.0**

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

Summary of Agency Resources by Appropriation

(Dollars in Thousands)

Appropriation	FY 2015 Enacted	FY 2016 Enacted	FY 2017 PresBud	Delta FY 17 PB-FY 16 EN
Science & Technology (S&T)	$734,648	$734,648	$754,184	$19,536
Environmental Program & Management (EPM)	$2,613,679	$2,635,279	$2,852,893	$217,614
Inspector General (IG)	$41,489	$41,489	$51,527	$10,038
Building and Facilities (B&F)	$42,317	$42,317	$52,078	$9,761
Inland Oil Spill Programs (Oil)	$18,209	$18,209	$25,410	$7,201
Hazardous Substance Superfund (SF)	$1,088,769	$1,094,169	$1,128,989	$65,065
- *Superfund Program*	$1,059,980	$1,065,380	$1,104,715	$39,335
- *Inspector General Transfer*	$9,939	$9,939	$8,778	($1,161)
- *Science & Technology Transfer*	$18,850	$18,850	$15,496	($3,354)
Leaking Underground Storage Tanks (LUST)	$91,941	$91,941	$94,285	$2,344
State and Tribal Assistance Grants (STAG)	$3,545,161	$3,518,161	$3,280,400	($237,761)
- *Categorical Grants*	$1,054,378	$1,081,041	$1,158,400	$77,359
- *State Revolving Funds*	$2,355,783	$2,257,120	$2,000,000	($257,120)
- *All Other STAG*	$135,000	$180,000	$122,000	($315,120)
Water Infrastructure Finance and Innovation Program	$0	$0	$20,000	$20,000
E-Manifest	$3,674	$3,674	$7,433	$3,759
Rescission of Prior Year Funds	($40,000)	($40,000)	$0	$40,000
Agency Total	**$8,139,887**	**$8,139,887**	**$8,267,199**	**$127,312**

Note:
1) S&T and IG totals do not include Superfund transfers – see the Superfund line items or annual amounts.
2) As part of the FY 2016 Consolidated Appropriations Act (P.L. 114-113), the EPA received $27 million for cybersecurity activities, of which $5.4 million was allocated to the Superfund Appropriation and $21.6 million was allocated to the Environmental Programs Management Appropriation as part of the agency's FY 2016 Enacted Budget.
3) Totals may not add due to rounding.

Categorical Program Grants

by National Program and State Grant

(Dollars in Thousands)

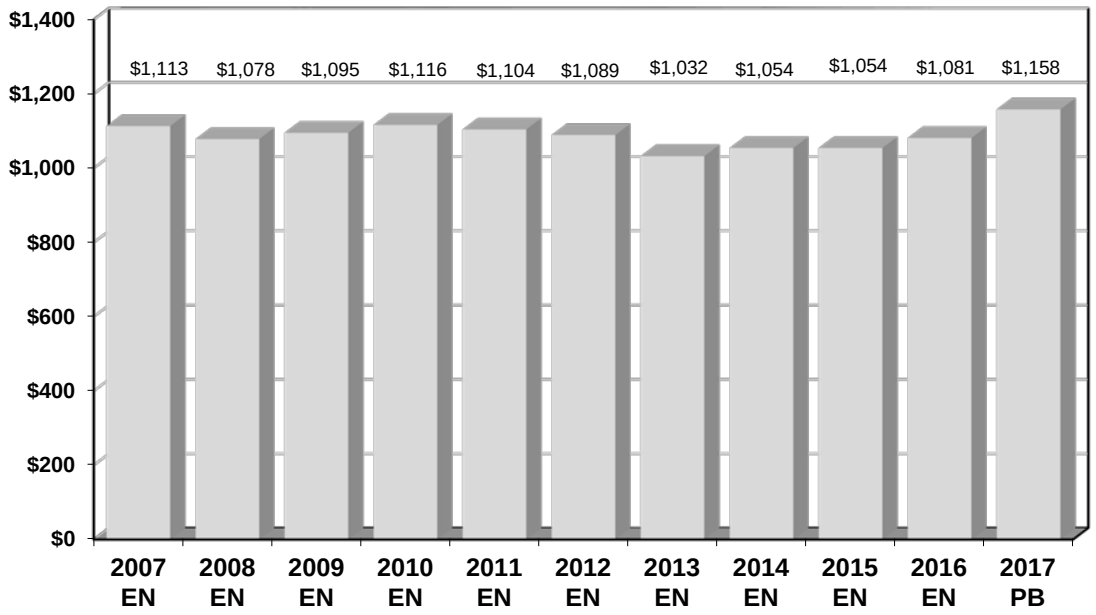
NPM / Grant	FY 2015 Actuals	FY 2016 Enacted	FY 2017 PresBud	Delta FY 2017 PB - FY 2016 EN	% Change FY 2017 PB - FY 2016 EN
Air & Radiation					
State and Local Air Quality Management	$231,121	$228,219	$268,229	$40,010	17.5%
Tribal Air Quality Management	$13,611	$12,829	$12,829	$0	0.0%
Radon	$8,267	$8,051	$0	($8,051)	-100.0%
Multipurpose Grants	$0	$21,000	$0	($21,000)	-100.0%
	$252,998	**$270,099**	**$281,058**	**$10,959**	**4.1%**
Water					
Pollution Control (Sec. 106)	$229,531	$230,806	$246,164	$15,358	6.7%
Beaches Protection	$9,868	$9,549	$0	($9,549)	-100.0%
Nonpoint Source (Sec. 319)	$165,686	$164,915	$164,915	$0	0.0%
Wetlands Program Development	$16,713	$14,661	$17,661	$3,000	20.5%
	$421,798	**$419,931**	**$428,740**	**$8,809**	**2.1%**
Drinking Water					
Public Water System Supervision (PWSS)	$102,021	$101,963	$109,700	$7,737	7.6%
Underground Injection Control (UIC)	$11,131	$10,506	$10,506	$0	0.0%
	$113,152	**$112,469**	**$120,206**	**$7,737**	**6.9%**
Hazardous Waste					
Hazardous Waste Financial Assistance	$101,311	$99,693	$99,693	$0	0.0%
Brownfields	$48,203	$47,745	$49,500	$1,755	3.7%
Underground Storage Tanks	$1,494	$1,498	$2,498	$1,000	66.8%
	$151,008	**$148,936**	**$151,691**	**$2,755**	**1.8%**
Pesticides & Toxics					
Pesticides Program Implementation	$12,748	$12,701	$13,201	$500	3.9%
Lead	$14,185	$14,049	$14,049	$0	0.0%
Toxics Substances Compliance	$4,817	$4,919	$4,919	$0	0.0%
Pesticides Enforcement	$18,013	$18,050	$18,050	$0	0.0%
	$49,763	**$49,719**	**$50,219**	**$500**	**1.0%**
Multimedia					
Environmental Information	$12,171	$9,646	$25,346	$15,700	162.8%
Pollution Prevention	$4,471	$4,765	$4,765	$0	0.0%
Tribal General Assistance Program	$66,417	$65,476	$96,375	$30,899	47.2%
	$83,059	**$79,887**	**$126,486**	**$46,599**	**58.3%**
Total Categorical Grants	**$1,071,776**	**$1,081,041**	**$1,158,400**	**$77,359**	**7.2%**

Notes 1) Actuals refer to actual obligations.

2) Totals may not add due to rounding.

Categorical Grants

(Dollars in millions)



*EN – Enacted, PB – President's Budget

Categorical Grants

In FY 2017, the EPA requests a total of $1.158 billion for 17 "categorical" program grants for state, interstate organizations, non-profit organizations, intertribal consortia, and Tribal governments. This represents a $77.4 million increase from the FY 2016 Enacted Budget. The EPA will continue to pursue its strategy of building and supporting state, local, and Tribal capacity to implement, operate, and enforce the nation's environmental laws. Most environmental laws were designed with a decentralized nationwide structure to protect public health and the environment. In this way, environmental goals will ultimately be achieved through the actions, programs, and commitments of state, Tribal, and local governments, organizations, and citizens.

In FY 2017, the EPA will continue to offer flexibility to state and Tribal governments to manage their environmental programs as well as provide technical and financial assistance to achieve mutual environmental goals. First, the EPA and its state and Tribal partners will continue implementing the National Environmental Performance Partnership System (NEPPS). NEPPS is designed to allow states the flexibility to operate their programs, while continuing to emphasize measuring and reporting of environmental results. Second, Performance Partnership Grants (PPGs) will continue to allow states and tribes funding flexibility to combine categorical program grants to address environmental priorities and, in some cases, to reduce administrative burden.

HIGHLIGHTS:

State & Local Air Quality Management, Radon, and Tribal Air Quality Management Grants

The FY 2017 request includes $281.1 million for grants to support state, local, and Tribal air management programs. Grant funds for State and Local Air Quality Management and Tribal Air Quality Management are

requested in the amounts of $268.2 million and $12.8 million, respectively. These funds provide resources to multi-state, state, local, and Tribal air pollution control agencies for the development and implementation of programs for the prevention and control of air pollution and for the implementation of National Ambient Air Quality Standards (NAAQS) set to protect public health and the environment. In FY 2017, the EPA will continue to work with state and local air pollution control agencies to develop or implement state implementation plans (SIPs) for NAAQS and also for regional haze. In addition, the EPA will continue to support state and local operation of the National Air Toxics Trends Stations network. In FY 2017, states with approved or delegated permitting programs will continue to implement greenhouse gas requirements as part of their permitting programs. Additionally, in FY 2017, the agency will work with states to implement their obligations under Section 111 (b) and (d) of the Clean Air Act, with regard to GHG emissions from electric generating units. The FY 2017 request includes $25 million for state plan development and implementation under Section 111(d) of the Clean Air Act.

The EPA will work with federally-recognized Tribal governments nationwide to continue development and implementation of Tribal air quality management programs. Tribes are active in protection of air quality for the land over which they have sovereignty and work closely with the EPA to monitor and report air quality information. Lastly, the FY 2017 budget eliminates funding for the State Indoor Radon Grant (SIRG) program. The SIRG program was authorized in 1988 to provide financial assistance to states to develop, implement, and enhance state capacity for reducing radon risk. Now that most states have indoor radon programs in place, the EPA will narrow support to states to technical assistance alone and eliminate financial assistance to states provided under the SIRG program.

Water Pollution Control (Clean Water Act Section 106) Grants

The EPA FY 2017 request includes $246.2 million for Water Pollution Control grants. The $15.4 million increase will strengthen the state, interstate, and tribal water quality programs. These water quality programs assist state and tribal efforts to restore and maintain the quality of the nation's waters by strengthening water quality standards, improving water quality monitoring and assessment, implementing Total Maximum Daily Loads (TMDLs) and other watershed-related plans, strengthening the National Pollutant Discharge Elimination System (NPDES) permit program, and implementing practices to reduce pollution from all nonpoint sources. The EPA will work with states, interstate agencies, and tribes to strengthen their nutrient management efforts consistent with the EPA Water Program guidance issued in March 2011. The EPA will work with states to incorporate rules governing discharges and revise NPDES permits.

States and authorized tribes will continue to review and update their water quality standards as required by the Clean Water Act. The EPA's goal for FY 2017 is that 73.2 percent of states will have updated their standards to reflect the latest scientific information. In FY 2017, the EPA requests $18.5 million of the Section 106 funding be provided to states and tribes that participate in collecting statistically valid water monitoring data and implement enhancements in their water monitoring programs.

Wetlands Grants

In FY 2017, the EPA request includes $17.7 million for Wetlands Program grants, which provide technical and financial assistance to the states, tribes, and local governments. These grants support development of state and tribal wetland programs that further the national goal of an overall increase in the acreage and condition of wetlands. The Wetland Program Development Grants are the EPA's primary resource for supporting state and tribal wetland program development. Grants are used to develop new or refine existing state and tribal wetland programs in one or more of the following areas: (1) monitoring and assessment; (2) voluntary restoration and protection; (3) regulatory programs including Section 401 certification; and (4) wetland water quality standards. The FY 2017 budget includes $3 million for grants awarded competitively for efforts to increase climate resilience by protecting and enhancing wetlands.

Public Water System Supervision Grants

In FY 2017, the EPA requests $109.7 million for Public Water System Supervision (PWSS) grants. These grants provide assistance to implement and enforce National Primary Drinking Water Regulations to ensure the safety of the Nation's drinking water resources and to protect public health. This request includes an additional $7.7 million to address challenges public water systems are facing today that impede their ability to achieve long-term sustainability. These challenges include lack of managerial capacity, significant water loss due to pipe failures in distribution systems, and climate change threats to the quality and quantity of drinking water sources. Additional resources will allow the EPA to increase training and technical assistance to improve the managerial capacity of system personnel in the areas of source water protection, financial planning, asset management, and implementation of sustainable practices such as water loss and conservation to protect infrastructure investments. The EPA will build on current efforts to identify, prevent, and protect drinking water from known and emerging contaminants that potentially endanger public health. All these activities help address health based violations, water supply shortages, and provide operational efficiencies that protect the nation’s infrastructure investment.

Underground Injection Control (UIC) Grants

In FY 2017, the EPA requests $10.5 million for the Underground Injection Control (UIC) grants program. Ensuring safe underground injection of waste materials and other fluids is a main component of a comprehensive source water protection program. Grants are provided to states that have primary enforcement authority (primacy) to implement and maintain UIC programs. The requested funding allows for the implementation of the UIC program including for states and tribes to administer UIC permitting programs, provide program oversight, implementation tools, and public outreach, and ensure that injection wells are safely operated. States and the EPA also will process UIC permits for other nontraditional injection streams such as desalination brines and treated waters injected for storage and recovered at a later time. In addition, the EPA will continue to process primacy applications and permit applications for Class VI geological sequestration wells. The EPA directly implements the Class VI geologic sequestration program, as no states have received approval for Class VI primacy either through a state UIC program revision or through a new application from states without any UIC primary enforcement authority.

Non-Point Source Program Grants (NPS – Clean Water Act Section 319)

In FY 2017, the EPA requests $164.9 million for Nonpoint Source Program grants to states, territories, and tribes. These grants enable states to use a range of tools to implement their programs including: technical assistance, financial assistance, education, training, technology transfer, and demonstration projects. The request also eliminates, for FY 2017, the statutory one-third of one percent cap on Clean Water Act Section 319 Nonpoint Source Pollution grants that may be awarded to tribes, allowing the agency to provide tribal funding at the agency’s discretion in accordance with tribal needs. In 2017, the EPA and the USDA will work collaboratively in high priority, focused watersheds to address agricultural nonpoint source pollution. The goal of our collaboration is to coordinate agency efforts, thereby increasing conservation on the ground to better protect water resources from nonpoint sources of pollution, including nitrogen and phosphorus.

Tribal General Assistance Program Grants

In FY 2017, the EPA requests $96.4 million in General Assistance Program (GAP) grants to provide tribes with a stronger foundation to build their capacity to address environmental issues on Indian lands. This request is $31 million over the FY 2016 Enacted Budget, and will further the EPA’s partnership and collaboration with tribes to address a wider set of program responsibilities and challenges. Funding will improve long-standing issues related to recruitment and retention of qualified environmental tribal professionals. Resources will support activities to help tribes transition from capacity development to program implementation, and support the development of EPA-Tribal Environmental Plans (ETEPs) to identify EPA and Tribal responsibilities for ensuring environmental and public health responsibilities in Indian country. The grants will assist Tribal governments in building environmental capacity to assess environmental conditions, utilize available federal and other information, and build and administer

environmental programs tailored to their needs. This additional funding will increase the average level of grants made to eligible tribes and focus on mutually agreed-upon concerns in Indian country.

Pesticide Enforcement and Toxics Substances Compliance Grants

The FY 2017 request includes $22.9 million to build environmental partnerships with states and tribes and to strengthen their ability to address environmental and public health threats. The compliance monitoring and enforcement state grants request consists of $18.0 million for Pesticides Enforcement and $4.9 million for Toxic Substances Compliance Grants.

The Toxic Substance Compliance Grants fund activities which protect the public and the environment from hazards associated with exposure to polychlorinated biphenyls (PCBs, asbestos, and lead-based paint). State and Tribal compliance and enforcement grants will be awarded to assist in the implementation of compliance and enforcement provisions of the Toxic Substances Control Act (TSCA) and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). These grants support state and Tribal compliance activities to protect the environment from harmful chemicals and pesticides.

Under the Pesticides Enforcement Grant program, the EPA provides resources to states and Indian tribes to conduct FIFRA compliance inspections, take appropriate enforcement actions, and implement programs for farm worker protection. The program also sponsors training for state and Tribal inspectors through the Pesticide Inspector Residential Program (PIRT) and for state and Tribal managers through the Pesticide Regulatory Education Program (PREP).

Under the Toxic Substances Compliance Grant program, “non-waiver” states inspect on behalf of the EPA and receive funding for compliance inspections of asbestos and PCBs. "Waiver" states inspect under their own regulations and receive funding for compliance inspections and enforcement of the asbestos program. States also receive funding for implementation of the state lead-based paint certification and training requirements, abatement notification and work practice standards compliance and enforcement program. The funds will complement other federal program grants for building state capacity for lead abatement, and enhancing compliance with disclosure, certification, and training requirements.

Pesticides Program Implementation Grants

The FY 2017 request includes $13.2 million for Pesticides Program Implementation grants. These resources will assist states, tribes, and partners with outreach, training, technical assistance, and implementation of various pesticide programs and issues; this includes: pesticide worker safety, protection of endangered species and water sources, bed bug issues, pollinator protection, spray drift reduction and promotion of environmental stewardship approaches to pesticide use. The EPA’s mission, as related to pesticides, is to protect human health and the environment from pesticide risk and to realize the value of pesticide availability by considering the economic, social, and environmental costs and benefits of using pesticides. The Pesticides Program Implementation grants help state programs stay current with changing requirements.

Lead Grants

The FY 2017 request includes $14.0 million for lead grants. This funding will provide assistance to states, territories, the District of Columbia, and tribes to develop and implement authorized programs for the lead-based paint abatement program to operate in lieu of the federal program. Additionally, the program will provide support to those entities to develop and implement authorized Renovation, Repair, and Painting (RRP) Programs. The EPA implements these programs in all areas of the country where states, territories, and tribes are not authorized to do so. Activities conducted as part of this program include: accrediting training programs, certifying individuals and firms, and providing education and compliance assistance to those subject to the abatement and RRP regulations as well as the general public.

Pollution Prevention Grants

The FY 2017 request includes $4.8 million for Pollution Prevention and Pollution Prevention Information Network grants. The programs provide grant funds to state agencies, colleges and universities, federally-recognized tribes, and intertribal consortia to support the development and delivery of pollution prevention information, tools, training and technical assistance for businesses. Pollution prevention refers to practices that reduce or eliminate waste at the source by modifying production processes, promoting the use of nontoxic or less toxic substances, implementing conservation techniques, decreasing the release of greenhouse gases, and promoting cost savings. For example in FY 2014, a Pollution Prevention grant recipient reduced 33,619 Metric Tons of CO2 equivalent (MTCO2e) by assisting businesses in reducing and greening their energy use. In FY 2014, another Pollution Prevention grant recipient reduced 210,400 pounds of hazardous materials and releases from an E3: Economy, Energy, and Environment project in Virginia.

Environmental Information Grants

In FY 2017, the EPA requests $25.3 million for the Environmental Information Exchange Network (EN) grant program. The EN grants provide funding to states, territories, federally recognized Indian tribes, and tribal consortia to support their participation in the EN. These grants help EN partners acquire and develop the hardware and software needed to connect to the Network; use the EN to collect, report, and access the data they need with greater efficiency; and integrate environmental data across programs. In collaboration with the EPA, the Environmental Council of the States accepts the EN as the standard approach for EPA and state data sharing. Tribes and territories have adopted it as well. The grant program provides the funding to make this approach a reality. Specifically, grants will be used to develop publishing services, develop desktop and mobile applications that can send and receive data via the network, expand the network to new priority data systems, transition network services to an EPA-hosted cloud-based node, increase data sharing among partners, bring electronic reporting into compliance with the Cross-Media Electronic Reporting Rule (CROMERR) using EPA hosted shared services as well as other priorities.

As part of the agency's E-Enterprise initiative, in FY 2017, the EPA request includes $15.7 million in funding for our state, local and Tribal partners to achieve benefits that reach beyond the standardization and exchange of data. The grants will fund new efforts to streamline and harmonize environmental regulations and the services for implementing them, with a goal of enabling the public and the regulated community to seamlessly interact with the environmental protection enterprise in the United States. Specific efforts in FY 2017 will include: participation in integrated project teams for regulatory analysis, business process reengineering, enterprise architecture analysis, performance measures, and communication efforts. Projects will include pilots for a single sign-on across federal and state programs with shared electronic credentials, scoping the transition to reusable shared solutions offered by the EPA, and the joint development of new shared services and components. The return on investment will be measured in the number of legacy systems that are converted to shared approaches, hours of reduced cumulative burden in paperwork and regulatory reporting, and costs avoided by preventing the redundant development and maintenance of technology services and infrastructure. This work will build on the successful state/EPA collaboration with the Environmental Information Exchange Network, a partnership which is enabling the exchange and sharing of critical environmental data, leading to enhanced analysis of environmental conditions and improved decision-making.

State and Tribal Underground Storage Tanks Program

The FY 2017 request includes $2.5 million for Underground Storage Tank (UST) grants. In FY 2015, the EPA awarded grants to states under Section 2007 of the Solid Waste Disposal Act, that supported core program activities as well as the leak prevention activities under Title XV, Subtitle B of the Energy Policy Act of 2005 (EPAct).

The EPA will continue to focus attention on the need to bring all UST systems into compliance with release detection and release prevention requirements and continue to implement the provisions of the EPAct.

States will continue to use the UST categorical grant funding to implement their leak prevention and detection programs. Specifically, with these UST categorical grants, states will fund such activities as: seeking state program approval to operate the UST program in lieu of the Federal program, approving specific technologies to detect leaks from tanks, ensuring that tank owners and operators are complying with notification and other requirements, ensuring equipment compatibility, conducting inspections, and implementing operator training.

Hazardous Waste Financial Assistance Grants

In FY 2017, the EPA requests $99.7 million for Hazardous Waste Financial Assistance grants. Hazardous Waste Financial Assistance grants are used for the implementation of the Resource Conservation and Recovery Act (RCRA) hazardous waste program, which includes permitting, authorization, waste minimization, enforcement, and corrective action activities. In FY 2017, the EPA will work with states to meet the annual target of 115 hazardous waste facilities with new or updated hazardous waste management controls.

By the end of FY 2017, the EPA and the authorized states also will have controlled human exposures to contamination at 94 percent of the 2020 Universe of 3,779 facilities that may need cleanup under the RCRA Corrective Action Program. The EPA also will have controlled migration of contaminated groundwater at 88 percent of these facilities, completed the construction of final remedies at 69 percent of these facilities, and attained corrective action performance standards (i.e., cleanup performance standards have been attained, or no further action is necessary) at 32 percent of these facilities.

Brownfields Grants

In FY 2017, the EPA requests $49.5 million for the Brownfields grant program that provides assistance to states and tribes to establish core capabilities and enhance their state and Tribal Brownfields response programs. These response programs address contaminated brownfields sites that do not require federal action but need assessment and/or cleanup before they can be ready for reuse. States and tribes may use grant funding under this program to develop a public record, create an inventory of brownfields sites, develop oversight and enforcement authorities, conduct public education and opportunities for public participation, develop mechanisms for approval of cleanup plans and certification that cleanup efforts are completed, capitalize a Revolving Loan Fund for brownfields-related work, purchase environmental insurance, develop tracking and management systems for land use, and conduct site specific activities such as assessments and cleanups at brownfields sites.

Clean Water State Revolving Fund (CWSRF) Resources

Drinking Water State Revolving Fund (DWSRF) Resources

State-by-State Distribution of Actual and Estimated Obligations
Fiscal Years 2015 to 2017 – Dollars in Thousands

The following tables show state-by-state distribution of resources for the EPA's two largest State and Tribal Grant Programs, the Clean Water State Revolving Fund and the Drinking Water State Revolving Fund.

Infrastructure Assistance:
Clean Water State Revolving Fund (SRF)

(Dollars in Thousands)

STATE	FY 2015 ACT. OBLIG.	FY 2016 EST. OBLIG.	FY 2017 EST. OBLIG.
Alabama	$15,755	$15,233	$10,589
Alaska	$8,433	$8,153	$5,668
American Samoa	$7,642	$7,389	$5,144
Arizona	$16,266	$9,201	$6,396
Arkansas	$9,217	$8,911	$6,195
California	$104,912	$97,430	$67,731
Colorado	$11,158	$10,897	$7,575
Connecticut	$17,261	$16,689	$11,602
Delaware	$6,917	$6,688	$4,649
District of Columbia	$7,408	$6,688	$4,649
Florida	$47,206	$45,984	$31,967
Georgia	$23,823	$23,033	$16,012
Guam	$5,530	$5,347	$3,722
Hawaii	$10,683	$10,551	$7,335
Idaho	$6,917	$6,688	$4,649
Illinois	$63,724	$61,611	$42,831
Indiana	$33,957	$32,831	$22,823
Iowa	$19,070	$18,437	$12,817
Kansas	$12,718	$12,296	$8,548
Kentucky	$17,933	$17,338	$12,053
Louisiana	$22,306	$14,975	$10,411
Maine	$10,907	$10,545	$7,331
Maryland	$34,078	$32,948	$22,905
Massachusetts	$47,838	$46,252	$32,153
Michigan	$60,584	$58,575	$40,720
Minnesota	$25,897	$25,039	$17,406
Mississippi	$12,694	$12,273	$8,532
Missouri	$39,018	$37,765	$26,253
Montana	$7,030	$6,688	$4,649
Nebraska	$7,207	$6,968	$4,844
Nevada	$6,917	$6,688	$4,649
New Hampshire	$14,081	$13,614	$9,464
New Jersey	$57,578	$55,668	$38,699
New Mexico	$1,514	$6,688	$4,649
New York	$155,520	$150,360	$104,531
North Carolina	$25,329	$24,586	$17,092
North Dakota	$6,917	$6,688	$4,649
Northern Mariana Islands	$3,552	$3,434	$2,391
Ohio	$79,321	$76,690	$53,313
Oklahoma	$12,524	$11,006	$7,651
Oregon	$15,917	$15,389	$10,698
Pennsylvania	$55,813	$53,962	$37,513
Puerto Rico	$18,377	$17,768	$12,352
Rhode Island	$9,461	$9,147	$6,359
South Carolina	$14,534	$13,956	$9,702
South Dakota	$6,917	$6,688	$4,649
Tennessee	$20,468	$19,790	$13,757
Texas	$64,400	$62,265	$43,285
Utah	$7,424	$7,178	$4,990
Vermont	$6,917	$6,688	$4,649
Virgin Islands, U.S.	$4,436	$4,289	$2,986
Virginia	$28,836	$27,879	$19,381
Washington	$24,503	$23,690	$16,469
West Virginia	$21,965	$21,236	$14,763
Wisconsin	$38,092	$36,829	$25,602
Wyoming	$6,917	$6,688	$4,649
Tribal Resources	$15,566	$30,000	$30,000
Non-state Resources	$362[1]	$1,600[2]	$2,449[3]
Sandy Supplemental	$64[4]	$0	$0
TOTAL:	**$1,438,311**	**$1,393,887**	**$979,500**

Notes:

1. Includes $320 thousand for American Iron and Steel Management and Oversight and $42 thousand for the annual Missouri independent audits for the CWSRF.
2. American Iron and Steel Management and Oversight. EPA is adjusting resource reservations to more accurately reflect costs associated with AIS implementation as stipulated by WRRDA.
3. American Iron and Steel Management and Oversight. EPA is adjusting resource reservations to more accurately reflect costs associated with AIS implementation as stipulated by WRRDA.
4. Payroll attributed to the Disaster Relief Appropriations Act of 2013 (P.L.113-2).
5. FY 2016 amounts represent pre-recission totals.

Infrastructure Assistance:
Drinking Water State Revolving Fund (SRF)
(Dollars in Thousands)

STATE	FY 2015 ACT. OBLIG.	FY 2016 EST. OBLIG.	FY 2017 EST. OBLIG.
Alabama	$16,781	$16,025	$19,013
Alaska	$8,787	$8,391	$9,955
American Samoa	$1,532	$1,463	$1,736
Arizona	$23,270	$15,149	$17,974
Arkansas	$13,445	$12,839	$15,233
California	$83,766	$78,944	$93,673
Colorado	$15,293	$14,604	$17,327
Connecticut	$8,903	$8,502	$10,087
Delaware	$8,787	$8,391	$9,955
District of Columbia	$10,163	$8,391	$9,955
Florida	$32,817	$30,689	$36,413
Georgia	$19,157	$18,294	$21,705
Guam	$3,932	$3,755	$4,455
Hawaii	$8,889	$8,391	$9,955
Idaho	$8,787	$8,391	$9,955
Illinois	$36,668	$35,015	$41,546
Indiana	$14,253	$13,611	$16,149
Iowa	$13,142	$12,550	$14,890
Kansas	$10,227	$9,563	$11,346
Kentucky	$13,680	$13,063	$15,499
Louisiana	$12,047	$11,504	$13,649
Maine	$8,787	$8,391	$9,955
Maryland	$14,913	$14,241	$16,896
Massachusetts	$16,333	$15,597	$18,505
Michigan	$27,349	$26,117	$30,987
Minnesota	$15,723	$15,015	$17,814
Mississippi	$9,099	$8,688	$10,308
Missouri	$17,733	$16,939	$20,097
Montans	$8,787	$8,391	$9,955
Nebraska	$8,787	$8,391	$9,955
Nevada	$12,531	$11,966	$14,198
New Hampshire	$8,787	$8,391	$9,955
New Jersey	$16,718	$15,964	$18,941
New Mexico	$10,234	$8,391	$9,955
New York	$42,176	$40,275	$47,786
North Carolina	$20,546	$19,632	$23,293
North Dakota	$8,787	$8,391	$9,955
Northern Mariana Islands	$3,367	$3,215	$3,815
Ohio	$24,425	$23,324	$27,674
Oklahoma	$14,384	$13,519	$16,040
Oregon	$12,614	$11,918	$14,140
Pennsylvania	$28,094	$26,828	$31,831
Puerto Rico	$8,787	$8,391	$9,955
Rhode Island	$8,787	$8,391	$9,955
South Carolina	$8,775	$8,391	$9,955
South Dakota	$8,787	$8,391	$9,955
Tennessee	$8,787	$8,391	$9,955
Texas	$63,565	$60,668	$71,984
Utah	$9,169	$8,756	$10,388
Vermont	$8,787	$8,391	$9,955
Virgin Islands, U.S.	$4,349	$4,153	$4,927
Virginia	$14,557	$13,901	$16,493
Washington	$19,611	$18,727	$22,220
West Virginia	$8,787	$8,391	$9,955
Wisconsin	$15,323	$14,633	$17,362
Wyoming	$8,787	$8,391	$9,955
Tribal Resources	$11,596	$20,000	$20,410
Non-state Resources	$4,101[1]	$4,158[2]	$4,551[3]
TOTAL:	**$907,053**	**$863,233**	**$1,020,500**

Notes:

1. Includes $4,008 million in UCMR set aside and $92 thousand for American Iron and Steel Management and Oversight.
2. UCMR set aside and American Iron and Steel Management and Oversight.
3. UCMR set aside and American Iron and Steel Management and Oversight.
4. FY 2016 amounts represent pre-recission totals.

Infrastructure / STAG Project Financing

(Dollars in Thousands)

Type / Grant	FY 2015 Enacted	FY 2016 Enacted	FY 2017 PresBud	Delta FY 17 PB – FY 16 EN
Clean Water State Revolving Fund	$1,448,887	$1,393,887	$979,500	($414,387)
Drinking Water State Revolving Fund	$906,896	$863,233	$1,020,500	$157,267
State Revolving Funds	**$2,355,783**	**$2,257,120**	**$2,000,000**	**($257,120)**
Water Infrastructure Finance and Innovation Program	**$0**	**$0**	**$20,000**	**$20,000**
Mexico Border	$5,000	$10,000	$5,000	($5,000)
Alaska Native Villages	$10,000	$20,000	$17,000	($3,000)
Special Projects	**$15,000**	**$30,000**	**$22,000**	**($8,000)**
Diesel Emissions Reduction Grant Program	**$30,000**	**$50,000**	**$10,000**	**($40,000)**
Brownfields Projects	**$80,000**	**$80,000**	**$90,000**	**$10,000**
Targeted Airshed Grants	**$10,000**	**$20,000**	**$0**	**($20,000)**
Infrastructure Assistance Total	**$2,490,783**	**$2,437,120**	**$2,122,000**	**($315,120)**

Infrastructure and Special Projects Funds

The FY 2017 President's Budget requests a total of $2.12 billion for the EPA's Infrastructure programs, including the State Revolving Funds (SRFs), Mexico Border, Alaska Native Villages, Diesel Emissions Reduction Act grants, and Brownfields Projects, in the State and Tribal Assistance Grant (STAG) account. This budget funds the SRFs at $2.0 billion total.

With funds provided to the SRFs and funding through EPA's operating programs in FY 2017, the EPA will augment its effort to build the capacity of local utilities, private investors, and existing state programs to expand their contribution to the array of funding options to meet future infrastructure needs. Infrastructure and targeted project funding under the STAG appropriation provides financial assistance to states, municipalities, interstates, and tribal governments to fund a variety of drinking water, wastewater, air, and brownfields environmental projects. These funds help fulfill the federal government's commitment to help our state, tribal, and local partners comply with federal environmental requirements and ensure public health and revitalize contaminated properties.

Providing STAG funds to capitalize SRF programs, the EPA works in partnership with the states to provide low-cost loans to municipalities for infrastructure construction. All drinking water and wastewater projects are funded based on state developed priority lists. Through SRF set-asides, grants are available to Indian tribes and U.S. territories for infrastructure projects.

The resources included in this budget will enable the agency, in conjunction with the EPA's state, local, and tribal partners, to achieve important goals. For example, 92 percent of the population served by community water systems will receive drinking water meeting all health-based standards.

Capitalizing Clean Water and Drinking Water State Revolving Funds

The Clean Water and Drinking Water State Revolving Fund programs demonstrate a true partnership between states, localities, and the federal government. These programs provide federal financial assistance to protect the nation's water resources by providing funds for the construction of drinking water and wastewater infrastructure and treatment facilities. The state revolving funds are two important elements of the nation's substantial investment in sewage treatment and drinking water systems, which provide Americans with significant benefits in the form of reduced water pollution and safe drinking water.

This federal investment also will support the continued work of the SRFs in ensuring that small and underserved communities have tools available to help address their pressing water infrastructure and other water quality needs. Many small systems face significant investment needs critical for the public health and environmental safety of the towns and cities they serve. The EPA will focus on issues such as: financial planning for future infrastructure investments (applications, exploring financing options, planning and design); expanding current work with states to identify additional financing opportunities for small communities; and enhancing partnership and collaboration with USDA on training, technical assistance, and funding opportunities for small communities.

The EPA will continue to provide financial assistance for wastewater and other water projects through the Clean Water State Revolving Fund (CWSRF). CWSRF projects include nonpoint source, estuary, stormwater, and sewer overflow projects. The dramatic progress made in improving the quality of wastewater treatment since the 1970s is a national success. In 1972, only 78.2 million people were served by secondary or advanced wastewater treatment facilities. As of 2012 (from the most recent Clean Watersheds Needs Survey), over 99 percent of Publicly Owned Treatment Works, serving 238 million people, use secondary treatment or better. Water infrastructure projects supported by the program contribute to direct ecosystem improvements by lowering the amount of nutrients and toxic pollutants in all types of surface waters. While great progress has been made, many rivers, lakes, and ocean/coastal areas still suffer a significant influx of pollutants after heavy rains resulting in beach closures, infected fish, and degradation of the ability of watersheds to sustain a healthy ecosystem.

The FY 2017 request includes $979.5 million in funding for the CWSRF. Total CWSRF funding available for loans from 1988 through June 2015 exceeds $113 billion. This total reflects loan repayments, state match dollars, as well as other funding sources. The EPA estimates that for every federal dollar contributed, more than two dollars are provided to municipalities.

The FY 2017 request includes $1.02 billion in funding for the DWSRF. Since its inception in 1997, the Drinking Water State Revolving Fund (DWSRF) program has made $32.01 billion available to finance 12,166 infrastructure improvement projects nationwide, with an average of $1.77 made available to localities for every $1 of federal funds invested. As of June 30, 2015, $17.5 billion in capitalization grants have been awarded, amounting to loans/assistance of $30.96 billion. The DWSRF helps address the costs of ensuring safe drinking water supplies and assists small communities in meeting their responsibilities.

The EPA will work to target assistance to small and underserved communities with limited ability to repay loans. Through the new Water Infrastructure and Resiliency Finance Center, the EPA will work to promote public private collaboration, provide peer-to-peer learning and training workshops, develop public private partnership models and tools, and maintain an ongoing dialogue with the financial community to encourage investment in the water market as well as innovative financing and utilization of the green project reserve to increase climate resilient infrastructure projects.

Tribal communities are in great need of assistance given their sanitation and drinking water infrastructure lags behind the rest of the country causing significant public health concerns. To help address this situation,

EPA is requesting a tribal funding floor of two percent, or $30 million for the CWSRF or $20 million for the DWSRF, whichever is greater, of the funds appropriated in FY 2017.

For FY 2017, the EPA requests that not less than 10 percent but not more than 20 percent of the CWSRF funds and not less than 20 percent but not more than 30 percent of the DWSRF funds be made available to each state to be used to provide additional subsidy to eligible recipients in the form of forgiveness of principle, negative interest loans, or grants (or a combination of these). The CWSRF additional subsidy would apply to the entire CWSRF appropriation. For FY 2017, the EPA will encourage states to utilize the subsidy to assist small drinking water systems with standards compliance.

The EPA also is requesting, to the extent there are sufficient eligible project applications, that not less than 20 percent of a portion of a CWSRF capitalization grant be made available for green infrastructure or environmentally innovative projects that can promote water system and community resilience. Funds made available to each state for Drinking Water State Revolving Fund capitalization grants may, at the discretion of each state, be used for projects that address green infrastructure or environmentally innovative activities.

As part of the Administration's Sustainable Water Infrastructure Policy, the EPA focuses on working with federal partners, states, and communities to develop systems that employ effective utility management practices to build and maintain the level of technical, financial, and managerial capacity necessary to ensure long-term sustainability. The policy emphasizes the need to build on existing efforts to promote sustainable water infrastructure and to employ robust, comprehensive planning processes to deliver projects that are cost effective over their life cycle, resource efficient, and consistent with community sustainability goals. Through this policy, the EPA is helping to ensure that federal investments, policies, and actions support water infrastructure in efficient and sustainable locations to best aid existing communities, enhance economic competitiveness, and promote affordable neighborhoods. The policy encourages that Federal dollars provided through the SRFs will act as a catalyst for efficient system-wide planning and ongoing management of sustainable water infrastructure.

Water Infrastructure Finance and Innovation Program

In FY 2017, the EPA will begin to fund Water Infrastructure and Finance Innovation Act (WIFIA) projects. The FY 2017 request of $20 million provides the necessary funds to finance WIFIA drinking water and wastewater infrastructure projects. The WIFIA program will accelerate investment in our nation's water and wastewater infrastructure by providing supplemental credit assistance to credit worthy nationally and regionally significant water projects. It is expected that entities with complex water and wastewater projects will be attracted to WIFIA and the EPA will work to provide assistance to a diverse set of projects.

Alaska Native Villages

The President's Budget requests $17 million for Alaska native villages for the construction of wastewater and drinking water facilities to address serious sanitation problems. The EPA will continue to work with the Department of Health and Human Services' Indian Health Service, the State of Alaska, the Alaska Native Tribal Health Council, and local communities to provide needed financial and technical assistance.

Diesel Emissions Reduction Grants

The Diesel Emissions Reduction Act (DERA), which is set to expire in 2016, authorizes funding to provide immediate, cost-effective emission reductions from existing diesel engines through engine retrofits, rebuilds, and replacements; switching to cleaner fuels; idling reduction strategies; and other clean diesel strategies. Retrofitting or replacing older diesel engines reduces particulate matter (PM) emissions up to 95 percent, smog-forming emissions, such as hydrocarbons (HC) and nitrogen oxide (NOx), up to 90 percent, and greenhouse gases up to 20 percent in the upgraded vehicles with engine replacements.

To protect the health of the most vulnerable populations and reduce childhood exposure to harmful exhaust, the Budget requests a renewal and expansion of this program to align with the Administration's 21st Century Clean Transportation Plan, which will accelerate the transition to cleaner vehicle fleets. The Fund

associated with this effort provides up to $300 million of mandatory funding in FY 2017 to increase efforts under the DERA Program. Priority grants will be given to accelerating Zero Emissions Bus fleets and charging networks that also support the grid through V2G technology.

The FY 2017 President's Budget also requests $10 million in traditional discretionary DERA funding to continue to reduce diesel emissions in communities and areas of highly concentrated diesel pollution. EPA will coordinate these diesel emissions reduction efforts with the Department of Transportation and the Department of Energy.

Brownfields Projects

The President's Budget requests $90 million for Brownfields projects. With the FY 2017 request, the EPA plans to fund at least 97 assessment cooperative agreements and approximately 38 direct cleanup cooperative agreements. The EPA also will support the assessment and cleanup of up to 112 sites contaminated by petroleum or petroleum products and award an estimated $3.0 million in environmental workforce development and job training grants In FY 2017, the funding provided is expected to result in the assessment of 1,400 brownfields properties, all of which are located in distressed communities. Using EPA grant dollars, the brownfields grantees will leverage 7,000 cleanup and redevelopment jobs and $1.1 billion in cleanup and redevelopment funding, and 5,500 acres of Brownfields will be ready for reuse.

During FY 2017, the Brownfields program will continue to support the agency's ongoing brownfields area-wide planning efforts. As part of the Administration's POWER+ initiative, the EPA will provide up to $5 million in cooperative agreements and technical assistance for brownfields area-wide planning to assist communities affected by energy sector transition. With the EPA's assistance, these communities will plan for new land uses and economic development opportunities by identifying viable reuses of brownfields properties, as well as target improvements to infrastructure and the environment, which may lead to site cleanup and community revitalization.

The EPA will continue to provide technical assistance for brownfields redevelopment in cities that are struggling to recover from structural changes in the U.S. manufacturing industry that resulted in significant impacts to their economies; these factors have added to the communities' needs to address blight and brownfields properties. In FY 2017, the Brownfields program will continue to foster federal, state, local, and public/private partnerships to return properties to productive economic use in communities.

The EPA's Brownfields and Land Revitalization Programs are key participants in the HUD-DOT-EPA partnership promoting livability and sustainable development. The EPA Brownfields program also is partnering with the Department of Labor and NIEHS to support environmental workforce development and fund job training and placement programs in brownfield communities. The Brownfields and Land Revitalization programs are working with USDA, HHS, and ATSDR to identify ways in which federal programs can increase food access in all communities and ensure access to quality health care. The Brownfields and Land Revitalization programs also are partnering with the National Park Service and its River and Trails Program to support Groundwork USA and individual Groundwork teams in their efforts to engage youth in community revitalization.

Mexico Border

The President's Budget requests $5 million for water infrastructure projects along the U.S.-Mexico Border. The goal of this program is to reduce environmental and human health risks along the border. The EPA's U.S.-Mexico Border program provides funds to support the planning, design, and construction of high priority water and wastewater treatment projects. The agency's goal is to provide protection to people in the U.S.-Mexico border area from health risks by connecting homes to potable water supply and wastewater collection and treatment systems.

Trust Funds

(Dollars in Millions)

Trust Funds Program	FY 2015 Enacted Budget[1]		FY 2016 Enacted Budget[1,2]		FY 2017 President's Budget[1]	
	$	FTE	$	FTE	$	FTE
Superfund[3]	$1,060	2,544	$1,065	2,532	$1,105	2,532
Inspector General (Transfers)	$10	59	$10	50	$9	50
Research & Development (Transfers)	$19	75	$19	72	$15	72
Superfund Total	**$1,089**	**2,677**	**$1,094**	**2,654**	**$1,129**	**2,654**
Base Realignment and Closure[4]	**$0**	**9**	**$0**	**9**	**$0**	**0**
LUST[5]	**$92**	**55**	**$92**	**54**	**$94**	**54**
Trust Funds Total:[6]	**$1,181**	**2,741**	**$1,186**	**2,717**	**$1,223**	**2,708**

[1] Totals may not add due to rounding.
[2] As part of the FY 2016 Consolidated Appropriations Act (P.L. 114-113), the EPA received $27 million for cybersecurity activities, of which $5.4 million was allocated to the Superfund Appropriation and $21.6 million was allocated to the Environmental Program and Management Appropriation as part of the agency's FY 2016 Enacted Budget.
[3] FTE numbers include all direct and reimbursable Superfund employees, excluding Base Realignment and Closure which is discussed below.
[4] Funding for reimbursable FTE provided by the Department of Defense via an Interagency Agreement.
[5] EPAct Grants for Prevention activities are included in the FY 2015 Enacted, FY 2016 Enacted, and FY 2017 President's Budget.
[6] Trust Funds Total includes reimbursable FTE for Base Realignment and Closure as well as other Superfund reimbursable FTE.

Superfund

In FY 2017, the President's Budget requests a total of $1,129 million in discretionary budget authority and 2,654 FTE for Superfund. This funding level will address environmental and public health risks resulting from releases or threatened releases of hazardous substances associated with any emergency site, as well as over 13,560 active Superfund National Priorities List (NPL) and non-NPL sites. It also provides funding to pursue responsible parties for cleanup costs, preserving federal dollars for sites where there are no viable contributing parties. As of January 2016, there are 1,714 sites on the NPL. 1,177 sites (69 percent) are construction completed, 319 sites (19 percent) are undergoing cleanup construction, 214 sites (13 percent) are pending investigation or being investigated, and 4 sites are deleted or deferred to another authority. The EPA will continue to give attention to all phases of the investigation and cleanup of NPL and non-NPL sites, including post-construction completion activities to ensure that Superfund response actions provide for the long-term protection of human health and the environment. A significant statutorily required post-construction activity is a Five-Year Review,[1] which generally is necessary when hazardous substances

[1] Five-Year Reviews are used to evaluate the implementation and performance of all components of the implemented remedy and to determine whether the remedy remains protective of human health and the environment. The Five-Year Review includes not only the physical remedy itself, but also institutional controls necessary to manage the use of the site. The EPA develops an annual Report to Congress describing the protectiveness of remedies as found through

remain on-site above levels that permit unrestricted use and unlimited exposure. In FY 2017, the EPA plans to conduct approximately 245 Five-Year Reviews.

Of the total funding requested for Superfund, $741 million and 1,262[2] FTE are for Superfund cleanups which include the Superfund Remedial, Emergency Response and Removal, EPA Emergency Preparedness, and Federal Facilities programs. The Superfund program protects the American public and its resources by cleaning up sites which pose an imminent or long term risk of exposure and harm to human health and the environment. In FY 2017, the agency will continue to respond to emergency releases of hazardous substances, stabilizing sites and mitigating immediate threats to keep our communities safe and healthy. The Superfund Remedial program will continue to maintain focus on completing projects at various stages in the response process and maximizing the use of site-specific special accounts. The EPA and its partners will focus on completing construction activities to meet the FY 2017 performance goal at 13 site wide construction completions as well as 105 project completions, while achieving human exposure and groundwater migration under control at 9 and 13 sites, respectively. The $30 million requested increase for the Superfund cleanup programs will help create jobs, support the EPA's ability to quickly respond to multiple simultaneous emergencies, continue essential ongoing fund-financed projects, and provide funding for new construction projects.

Of the total funding requested, $177 million and 853 FTE are for Superfund enforcement-related activities. One of the Superfund program's primary goals is to have responsible parties pay for and conduct cleanups at abandoned or uncontrolled hazardous waste sites. The agency focuses on maximizing all aspects of Potentially Responsible Party (PRP) participation; including reaching a settlement with or taking an enforcement action by the time of a Remedial Action start for at least 99 percent of non-federal Superfund sites that have viable, liable parties. The agency has reached a settlement or taken an enforcement action on 100 percent of non-federal Superfund sites with viable, liable parties in FY 2015.

CERCLA authorizes the agency to retain and use funds received pursuant to an agreement with a potentially responsible party (PRP) to carry out the purpose of that agreement. The EPA retains such funds in special accounts and uses them to finance site-specific CERCLA response actions in accordance with the settlement agreement, including, but not limited to, investigations, construction and implementation of the remedy, post-construction activities, and oversight of PRPs conducting the cleanup. Through the use of special accounts, the EPA pursues its "enforcement first" policy – ensuring responsible parties pay for cleanup – so that appropriated resources from the Superfund Trust Fund are conserved for sites where no viable or liable PRPs have been identified. Because response actions may take many years, and the use of special account funding is limited by the terms of the settlement agreements, the full use of special account funds may also take many years. Since the inception of special accounts through the end of FY 2015, the EPA has collected more than $6.3 billion from PRPs and earned approximately $445.2 million in interest. In addition, for those sites that had no additional work planned or costs to be incurred by the EPA, the EPA has transferred more than $27 million to the Superfund Trust Fund for future appropriation by Congress. As of the end of FY 2015, over $2.9 billion has been disbursed to finance site response actions and approximately $394 million has been obligated but not yet disbursed. Of the special account funds made available through the end of FY 2015, approximately 49 percent have been disbursed or obligated for response actions at sites and plans have been developed to guide the future use of the remaining 51 percent of special account funds. Both special account resources and appropriated resources are critical to the Superfund program.

The EPA's Homeland Security work is an important component of the federal government's prevention, protection, and response activities. The FY 2017 President's Budget requests $30.3 million within the Hazardous Substance Superfund Account to: maintain its capability to respond effectively to incidents that may involve harmful chemical, biological, and radiological (CBR) substances; maintain the Environmental Response Laboratory Network (ERLN); develop and maintain agency expertise and operational readiness for all phases of consequential management following a CBR incident, specifically environmental

Five-Year Reviews including those conducted by federal agencies and reviewed by the EPA through the Superfund Federal Facilities Response program.

[2] This includes 9 Superfund Federal Facility (non-BRAC) reimbursable FTE.

characterization, decontamination, laboratory analyses and clearance; and conduct CBR training for agency responders to improve CBR preparedness.

The FY 2017 President's Budget also includes resources supporting agency-wide resource management and control functions. This includes essential infrastructure, contract and grant administration, financial accounting, and other fiscal operations.

In addition, the agency provides funds for Superfund program research and for auditing. The President's Budget requests $15.5 million and 72 FTE to be transferred to Research and Development. Research will enable the EPA's Superfund program to accelerate scientifically defensible and cost-effective decisions for cleanup at complex contaminated Superfund sites and support the development of decontamination techniques for a wide-area CBR event. The Superfund research program is driven by program needs to reduce the cost of cleaning up Superfund sites, improve the efficiency of characterizing and remediating sites, identify effective remediation technologies, and reduce the scientific uncertainties for improved decision-making at Superfund sites. The President's Budget also requests $9 million and 50 FTE to be transferred to the Inspector General for program auditing.

There are still sites where no viable PRP has been identified and there are many activities that the EPA performs that are not otherwise reimbursed. For this reason, the FY 2017 Budget supports reinstatement of the Superfund tax. The Superfund tax on petroleum, chemical feedstock and corporate environmental income expired in 1995. Since the expiration of Superfund tax, Superfund program funding (the "Superfund appropriation") has been largely financed from General Revenue transfers to the Superfund Trust Fund, thus burdening the general public with the costs of cleaning up hazardous waste sites. Reinstating the Superfund taxes would provide a stable, dedicated source of revenue for the Superfund Trust Fund and restore the historic nexus that parties who benefit from the manufacture and sale of substances found in hazardous waste sites contribute to the cost of cleanup. The reinstated Superfund taxes are estimated to generate a revenue level of approximately $1.8 billion in 2017 to more than $2.8 billion annually by 2026. Total tax revenue over the period 2017 to 2026 is predicted to be $25.4 billion. The revenues will be placed in the Superfund Trust Fund and would be available for appropriation from Congress to support the assessment and cleanup of the Nation's highest risk sites within the Superfund program.

Base Realignment and Closure Act

Since 1993, the EPA has worked with the Department of Defense (DOD) and state environmental programs to make property environmentally acceptable for transfer, while protecting human health and the environment at realigning or closing military installations. Between 1988 and 2005, over 500 major military installations representing the Army, Navy, Air Force, and Defense Logistics Agency have been slated for realignment or closure. Under the first four rounds of BRAC (BRAC I-IV), 107 of those sites were identified as requiring accelerated cleanup. The EPA provided critical environmental support to DOD and participated in the acceleration process of the first four rounds of BRAC. The accelerated cleanup process strived to make parcels available for reuse as quickly as possible, by transfer of uncontaminated or remediated parcels, lease of contaminated parcels where cleanup is underway, or "early transfer" of contaminated property undergoing cleanup. Seventy-two Federal facilities currently listed on the NPL were identified under the fifth round of BRAC (BRAC V) as closing, realigning, or gaining personnel.

The Base Realignment and Closure (BRAC) Interagency Agreement (IA), which was signed on February 28, 2011, will expire on September 30, 2016. The agency will no longer receive DOD funding for oversight at selected BRAC installations that have been closed during the first four rounds (BRAC I - IV). This includes, but is not limited to, meeting and expediting statutory obligations for overseeing cleanup and ensuring remedy protectiveness after property transfer of non-NPL installations. The EPA will use its appropriated funding to continue to have a presence at NPL BRAC sites. The FY 2017 President's Budget request does not include support for BRAC-related services to DOD.

Leaking Underground Storage Tanks

The FY 2017 President's Budget requests $94 million and 54 FTE for the Leaking Underground Storage Tank (LUST) Trust Fund program. The agency, working with states and tribes, addresses public health and environmental threats from releases through prevention and cleanup activities. As required by law (42 U.S.C. 6991c(f)), not less than 80 percent of LUST appropriated funds will be used for reasonable costs incurred under cooperative agreements with any state to carry out related purposes. The EPA will continue to work with the states to achieve more cleanups, and reduce the 72,000 cleanups not yet completed. Between 1986 and 2015, the LUST program addressed approximately 86 percent (456,660) of all reported releases. In FY 2017, working with state partners, the LUST program will strive to achieve 8,600 cleanups. The FY 2017 target reflects a variety of challenges including the complexity of remaining sites, an increased state workload, a decrease in available state resources, and the increasing cost of cleanups.

The LUST Trust Fund financing tax was extended by Congress through September 30, 2022 in the "Fixing Americas Surface Transportation Act (FAST Act). While tank owners and operators are liable for the cost of cleanups at leaking underground storage tank sites for which they have responsibility, EPA and State regulatory agencies are not always able to identify responsible parties and sometimes responsible parties are no longer financially viable or have a limited ability to pay. In those cases, the cost of the site cleanup is distributed among fuel users through a targeted fuel tax, which is available for appropriation from Congress to support leak prevention and the cleanup of sites addressed under the LUST program. For FY 2015, the Trust Fund received more than $178 million in tax receipts.

Highlight of Major Budget Changes

Climate Change and Air Quality

Climate Protection Program
(FY 2017 PB: $115.9 M, FY 2016 Enacted: $103.5 M, FY 2017 Change: +$12.4 M)

Significant changes include:
- +$7.6 million increase to support the President's Climate Action Plan, including: implementation of the Clean Power Plan through development of tools that states will need to develop plans; implementation of the President's Interagency Methane Strategy; reduction of use and emissions of hydrofluorocarbons (HFCs) under the Significant New Alternatives Policy (SNAP) program in key sectors, such as refrigeration and air conditioning and support for multilateral efforts; and support for climate-related technical assistance to further enhance the agency's international leadership role in advancing the international aspects of the President's Climate Action Plan.
- +$1.9 million increase to the ENERGY STAR program. This increase will enhance the ENERGY STAR Portfolio Manager by adding reporting and tracking functionality to serve corporate, federal, state and local government users and to assist in measuring carbon footprint of buildings.

Federal Stationary Source Regulations
(FY 2017 PB: $37.9 M, FY 2016 Enacted: $22.9 M, FY 2017 Change: +$15.0 M)

Significant changes include:
- +$10.2 million increase for components of the President's Climate Action Plan, including supporting the review of state plans.
- +$3.8 million increase for ongoing regulatory reviews statutorily mandated by the Clean Air Act (CAA) to maximize public health protections.

Federal Support for Air Quality Management
(FY 2017 PB: $171.0 M, FY 2016 Enacted: $132.2 M, FY 2017 Change: +$38.8 M)

Significant changes include:
- +$12.0 million increase to support critical work for the Clean Power Plan. The 111(d) existing source standard involves multiple complex regulatory processes that requires extensive work with states and other entities to develop infrastructure and provide continued technical assistance to support states. The implementation phase in FY 2017 is resource intensive, with many levels of technical assistance to states, communities, and tribes.
- +$10.0 million increase for contract funding for the agency to provide direct technical assistance to states as they conduct Clean Power Plan work and planning. These resources will be critical for the development of guidance, including associated data collection, evaluation, and analysis, on key topics such as energy efficiency, emission rate credits, and the Clean Energy Incentive Program (CEIP).
- +$5.3 million increase to support timely issuance of guidance, ongoing outreach to states and other entities as well as development of NAAQS implementation tools.
- +$2.8 million increase for the continued development of the Combined Air Emissions Reporting project which will streamline and integrate multiple emissions reporting, in line with the E-Enterprise business strategy, making it easier and more efficient for state, local, and tribal air agencies and industry to report required air emissions data and improve the quality of the data received.

Diesel Emissions Reduction Grant Program
(FY 2017 PB: $10.0 M, FY 2016 Enacted: $50.0 M, FY 2017 Change: -$40.0 M)

Significant changes include:
- -$40.0 million reduction to the overall amount of discretionary grant funding, while targeting spending on grants and rebates toward communities most impacted by harmful diesel emissions.

Climate Infrastructure Fund
(Mandatory Account) FY 2017 PB: $300.0 M, FY 2016 Enacted: $0.0 M, FY 2017 Change: +$300.0 M)

Significant changes include:
- As part of the President's 21st Century Clean Transportation Plan, the EPA will establish a mandatory fund that will accelerate the transition to cleaner vehicle fleets, focusing on school bus upgrades that improve children's health. The new account will provide $1.65 billion over the course of ten years and up to $300 million in FY 2017 to renew and increase funding for the DERA Program.

Federal Vehicle and Fuels Standards and Certification
(FY 2017 PB: $103.6 M, FY 2016 Enacted: $93.2 M, FY 2017 Change: +$10.3 M)

Significant changes include:
- +$4.2 million to support actions required by EPAct and EISA and to enhance vehicle, engine, and fuel compliance programs, including critical testing capabilities. Funds will help to ensure development of, eligibility determination, and compliance with emission and fuel standard requirements.
- +$1.0 million to build upon the program's success in attaining GHG reductions within the transportation sector domestically and sharing that expertise and technical assistance internationally with a focus on heavy duty trucks.

America's Waters

Drinking Water Programs
(FY 2017 PB: $112.6 M, FY 2016 Enacted: $100.0 M, FY 2017 Change: +$12.5 M)

Significant changes include:
- +$9.1 million increase in funds to complement the EPA's state revolving fund infrastructure investments and promote economic growth through innovative financing, techniques such as system partnerships, capacity building, full cost pricing, and public and private collaboration.
- +$1.6 million increase to the Water Infrastructure and Resiliency Finance Center to help communities identify and develop water financing, including a $0.3 million transfer from the Office of the Chief Financial Officer to the Office of Water.

Surface Water Protection
(FY 2017 PB: $228.2 M, FY 2016 Enacted: $200.3 M, FY 2017 Change: +$27.9 M)

Significant changes include:
- +$7.5 million increase supports green infrastructure and MS4 activities to further the agency's sustainability goals. The EPA will expand green infrastructure technical assistance efforts to include more communities and assist newly regulated MS4s to develop effective stormwater plans.
- +$6.3 million increase in funding for water infrastructure to build the technical, managerial, and financial capabilities of wastewater systems with a strong focus on integrated planning.
- +$5.7 million increase for surface water activities, including NPDES regulatory and technical assistance; water quality criteria; TMDL program implementation; and non-point source management.

- +$4.5 million increase in support for a new approach for measuring improvements in water quality. It will aid in the development of tools needed to automate the linking of state assessment data, make updates and necessary improvements to incorporate data into the EPA data systems, and assist states in implementing the new approach.

Geographic Program: Chesapeake Bay
(FY 2017 PB: $70.0 M, FY 2016 Enacted: $73.0 M, FY 2017 Change: -$3.0 M)

Significant changes include:
- -$3.0 million reduction in extramural resources to support Chesapeake Bay restoration. The reduction will impact the level of State Grant funding and implementation of both the Bay Watershed Agreement and the Watershed Implementation Plans that support the Bay TMDL.

Great Lakes Restoration
(FY 2017 PB: $250.0 M, FY 2016 Enacted: $300.0 M, FY 2017 Change: -$50.0 M)

Significant changes include:
- -$50.0 million reduction in interagency agreements, grants, and contracts. Greater emphasis will be placed on three GLRI areas of emphasis: clean-up of Areas of Concern, preventing and controlling the spread of invasive species, and taking steps to address the causes of harmful algal blooms.

Geographic Program: Lake Champlain
(FY 2017 PB: $1.4 M, FY 2016 Enacted: $4.4 M, FY 2017 Change: -$3.0 M)

Significant changes include:
- -$3.0 million reduction in resources for implementation actions that support the Lake Basin Plan, "Opportunities for Action," including cyanobacteria monitoring, invasive species control and nutrient reduction actions achieved through local implementation projects, research of innovative nutrient control technologies, and outreach and education activities.

Water Quality Research and Support Grants
(FY 2017 PB: $0.0 M, FY 2016 Enacted: $26.8 M, FY 2017 Change: -$26.8 M)

Significant changes include:
- -$26.8 million decrease is an elimination of funding for this program project in FY 2017 since states are best positioned to develop technical assistance plans for their water systems using Public Water System Supervision funds and set-asides from the Drinking Water State Revolving Fund (DWSRF).

Water Infrastructure

Infrastructure Assistance: Clean Water SRF
(FY 2017 PB: $979.5 M, FY 2016 Enacted: $1,393.9 M, FY 2017 Change: -$414.4 M)

Significant changes include:
- -$414.4 million decrease will result in approximately 170 fewer wastewater infrastructure projects.

Infrastructure Assistance: Drinking Water SRF
(FY 2017 PB: $1,020.5 M, FY 2016 Enacted: $863.2 M, FY 2017 Change: +$157.3 M)

Significant changes include:
- +$157.3 million increase will result in funding approximately 71 more drinking water infrastructure projects.

Infrastructure Assistance: Mexico Border
(FY 2017 PB: $5.0 M, FY 2016 Enacted: $10.0 M, FY 2017 Change: -$5.0 M)

Significant changes include:
- -$5.0 million decrease will result in a decrease of funding for approximately five projects in planning or design construction.

Infrastructure Assistance: Alaska Native Villages
(FY 2017 PB: $17.0 M, FY 2016 Enacted: $20.0 M, FY 2017 Change: -$3.0 M)

Significant changes include:
- -$3.0 million reduction will result in approximately three fewer funded projects toward addressing the drinking water and wastewater needs of Alaskan Native Villages.

Water Infrastructure Finance and Innovation
(FY 2017 PB: $20.0 M, FY 2016 Enacted: $0 M, FY 2017 Change: +$20.0 M)

Significant changes include:
- +$20.0 million increase marks the beginning of direct loan financing for WIFIA water infrastructure projects in FY 2017. This request provides the necessary no-year appropriated funds for the EPA to start WIFIA financing of drinking water and wastewater projects. WIFIA is designed to leverage significant capital, with $15 million in credit subsidy supporting a potential loan capacity of nearly $1 billion.

Enforcement and Compliance

Civil Enforcement
(FY 2017 PB: $185.7 M, FY 2016 Enacted: $174.4 M, FY 2017 Change: +$11.3 M)

Significant changes include:
- +$6.6 million increase will support technical analyses of complex data to support enforcement cases; settlement agreements; compliance oversight activities; and support activities such as expert witness, discovery and laboratory analyses which are core elements of civil enforcement legal proceedings.

Compliance Monitoring
(FY 2017 PB: $112.5 M, FY 2016 Enacted: $102.8 M, FY 2017 Change: +$9.7 M)

Significant changes include:
- +$2.5 million increase in funding for inspectors to carry out inspections efficiently through technology and data, to better detect violations and to provide the infrastructure necessary to support a comprehensive monitoring program.
- +$1.8 million increase for E-Enterprise project which includes partnering with states to develop and implement electronic reporting tools for the National Pollutant Discharge Elimination System (NPDES) and modernizing the Enforcement and Compliance History Online (ECHO).

- +$0.8 million increase for the agency's Cross Agency Strategy for Making a Visible Difference in Communities for integrating advanced monitoring equipment and a new regional, state, and community loan program.

Criminal Enforcement
(FY 2017 PB: $60.4 M, FY 2016 Enacted: $53.4 M, FY 2016 Change: +$7.0 M)

Significant changes include:
- +$3.7 million increase to support targeted, analytically-driven enforcement activities and investigation of complex criminal enforcement cases. Includes the electronic analytical platform needed for comparative analysis of information from a variety of sources.

Chemical Safety

Endocrine Disruptors
(FY 2017 PB: $4.3 M, FY 2016 Enacted: $7.6 M, FY 2017 Change: -$3.3 M)

Significant changes include:
- -$3.0 million reduction is a result of reduced workload to develop new assays and animal-based tests due to the deployment of high throughput screening and computational toxicology models.

Toxic Substances: Chemical Risk Review and Reduction
(FY 2017 PB: $67.2 M, FY 2016 Enacted: $58.6 M, FY 2017 Change: +$8.6 M)

Significant changes include:
- +$5.9 million increase to support additional or accelerated risk reduction work on TSCA Work Plan Chemicals where completed assessments have identified risks. +$2.5 million increase will support a significant investment to accelerate initiation and completion of assessments for TSCA Work Plan Chemicals, allowing the EPA to make greater progress towards the ambitious FY 2018 Strategic Target to assess all of the originally identified TSCA Work Plan chemicals.

Pesticides: Protect the Environment from Pesticide Risk
(FY 2017 PB: $44.1 M, FY 2016 Enacted: $39.6 M, FY 2017 Change: +$4.5 M)

Significant changes include:
- +$2.9 million increase to support an increase in the workload in registration and registration review actions to address more complex issues related to endangered species.

Communities

Brownfields Projects
(FY 2017 PB: $90.0 M, FY 2016 Enacted: $80.0 M, FY 2017 Change: +$10.0 M)

Significant changes include:
- +$10.0 million increase in grants will provide funding to communities in environmental revitalization and economic redevelopment to work together to plan, assess, cleanup, and reuse brownfields. Up to $5.0 million of the increase will be used to support communities to develop comprehensive strategies and area-wide plans as part of the Administration's POWER+ initiative.

State and Local Prevention and Preparedness
(FY 2017 PB: $23.7 M, FY 2016 Enacted: $15.3 M, FY 2017 Change: +$8.4 M)

Significant changes include:
- +$7.5 million increase in resources to improve chemical facility safety and security and support implementation of EO 13650 through expanded outreach and training focused on capacity building at the local level and compliance assistance to facilities.

Integrated Environmental Strategies
(FY 2017 PB: $27.4 M, FY 2016 Enacted: $11.5 M, FY 2017 Change: +$15.9 M)

Significant changes include:
- +$6.7 million increase for the non-EPA "Circuit Riders" who will work with the Administration's existing Place Based Climate Action Champions to provide on-the-ground technical assistance to multiple communities and support multi-media climate mitigation.
- +$2.6 million increase to focus on agency priorities including expanding Lean government business process improvements.
- +$2.9 million increase to assist Alaska Native Villages in building capacity and conducting climate change resiliency planning exercises.
- +$2.5 million increase to support core community work to improve strategic focus and engage with local organizations, an agency priority outlined in the Communities Cross Agency Strategy.

Environmental Education
(FY 2017 PB: $11.2 M, FY 2016 Enacted: $8.7 M, FY 2017 Change: +$2.5 M)

Significant changes include:
- +$2.3 million increase to support administration of Environmental Education (EE) grants; including new areas of emphasis in lead poisoning and PCB exposure outreach efforts. Also supports advancement of the frameworks and tools used for measuring EE impacts; better leveraging of EE efforts across the federal government; and development of the longer-term strategic direction for the program.

Environmental Justice
(FY 2017 PB: $15.9 M, FY 2016 Enacted: $7.3 M, FY 2017 Change: +$8.6 M)

Significant changes include:
- +$5.0 million increase to support the agency's "Making a Visible Difference in Communities" initiative by providing financial assistance, building partnerships, assisting communities to identify environmental and health problems, implementing solutions, and training experts to address specific environmental justice needs.
- +1.4 million increase to support the agency's "Making a Visible Difference in Communities" initiative to assist communities with identifying environmental and health problems, developing metrics and measures, and implementing solutions.
- +$1.0 million increase in funding for Advanced Monitoring efforts in communities through technical assistance and training.

LUST Prevention
(FY 2017 PB: $27.9 M, FY 2016 Enacted: $25.4 M, FY 2017 Change: +$2.5 M)

Significant changes include:
- +$3.5 million increase in critical resources to conduct 5,600 more inspections in FY 2017 and further the EPA's, states' and tribes' ability to maintain inspection frequency, ensure compliance, and help prevent future confirmed releases.

- -$1.0 million realignment of state grant resources from the LUST Prevention program to the UST STAG program for a three-year period in order for states to revise state regulations, apply for SPA, and adopt the new federal regulations that were promulgated in July 2015. The total funding for each state would not change, only the eligible uses for those funds would be expanded to fit the need to meet compliance.

Research

Research: Air, Climate and Energy
(FY 2017 PB: $101.2 M, FY 2016 Enacted: $91.9 M, FY 2017 Change: +$9.3 M)

Significant changes include:
- +$3.0 million increase for research to study the environmental and resource conservation impacts of clean fuels use on air and water quality, soil quality and conservation, water availability, ecosystem health and biodiversity, invasive species, and on the international environment as part of the Mission Innovation Clean Energy pledge.
- +$2.0 million increase to provide further research on climate change and nitrogen interactions, and provide research support to universities for developing long-term emissions inventories for differentiating changing emissions related to human activities and for better understanding benefits and impacts of an alternative energy infrastructure on the environment and climate change.

Research: Chemical Safety and Sustainability
(FY 2017 PB: $94.9 M, FY 2016 Enacted: $89.3 M, FY 2017 Change: +$5.6 M)

Significant changes include:
- +$5.2 million increase to: incorporate advancements in computational chemistry to allow use of information (i.e. read-across) from chemical structures with known bioactivity to other structures with less data, use the high throughput hazard and exposure information to begin to evaluate cumulative risk of chemical exposures; expand and extrapolate to novel assays that have relevance to ecological impacts; and demonstrate how the ToxCast/Tox21 data can be used to develop high-throughput risk assessments, in particular for data poor chemicals.

Research: Safe and Sustainable Water Resources
(FY 2017 PB: $106.3 M, FY 2016 Enacted: $107.4 M, FY 2017 Change: -$1.1 M)

Significant changes include:
- +$2.2 million increase in support of a study of the potential impacts of hydraulic fracturing on water quality and ecosystems to support sustainable approaches to oil and natural gas development and production.
- -$3.1 million decreases drinking water system research including: research and tools to support small drinking water systems for states, tribes, and localities; and research to expand water reuse for municipalities, energy production and thermoelectric cooling, and irrigation for the goal of mitigating water shortages.

Research: Sustainable and Healthy Communities
(FY 2017 PB: $146.7 M, FY 2016 Enacted: $154.9 M, FY 2017 Change: -$8.2 M)

Significant changes include:
- -$3.4 million reduction in resources for examining the impacts of environmental stressors and cumulative exposures on communities. This change also reduces the EPA's research efforts in investigating factors that influence the sustainability and health of aging populations and communities.
- -$1.7 million reduction to research associated with materials management and solid waste, land use, and the built environment that integrate social, economic, health and ecologic outcomes.

Superfund

Superfund: Emergency Response and Removal
(FY 2017 PB: $185.2 M, FY 2016 Enacted: $181.3 M, FY 2017 Change: +$3.9 M)

Significant changes include:
- +$3.0 million increase to further the EPA's ability to quickly respond to multiple simultaneous emergencies and to assist with more comprehensive, resource-intensive, time critical cleanup actions.

Superfund: Enforcement
(FY 2017 PB: $158.6 M, FY 2016 Enacted: $150.6 M, FY 2017 Change: +$8.0 M)

Significant changes include:
- +$5.1 million increase for the EPA's Superfund Enforcement program to initiate civil, judicial, and administrative site remediation cases and continue support of PRPs efforts to clean up Superfund sites.

Superfund: Federal Facilities
(FY 2017 PB: $26.8 M, FY 2016 Enacted: $21.1 M, FY 2017 Change: +$5.6 M)

Significant changes include:
- +$5.4 million increase in resources to enable the EPA's ability to meet statutory CERCLA obligations such as working on cleanup schedules established under site-specific FFAs, reviewing RODs, and providing technical assistance to other federal agencies and states, as requested, at non-NPL federal facilities.

Superfund: Remedial
(FY 2017 PB: $521.0 M, FY 2016 Enacted: $501.0 M, FY 2017 Change: +$20.0 M)

Significant changes include:
- +$18.8 million increase to continue essential ongoing fund-financed projects, maximize the preparation of "shovel-ready" projects, and provide funding (reducing the backlog) for new construction projects.

Homeland Security

HS: Preparedness, Response, and Recovery
(FY 2017 PB: $57.2M, FY 2016 Enacted: $61.3M, FY 2017 Change: -$4.1M)

Significant changes include:
- -$3.2 million decreases the agency's homeland security emergency preparedness and response program. Existing agency preparedness will be maintained. Planned training and exercises will be prioritized and equipment upgrades for regional and special team field equipment may be delayed or modified. EPA's national leadership responsibilities and assets will continue to be available when needed.

HS: Protection of EPA Personnel and Infrastructure
(FY 2017 PB: $15.9M, FY 2016 Enacted: $13.7M, FY 2017 Change: +$2.3M)

Significant changes include:
- +$1.7 million increases funding for the agency's background investigation program due to new requirements in addition to OPM fee increases. These resources are necessary to support the increased demand for the initiation and adjudication of background investigations.

State and Tribal Partnerships

Categorical Grant: Environmental Information
(FY 2017 PB: $25.3 M, FY 2016 Enacted: $9.6 M, FY 2017 Change: +$15.7 M)

Significant changes include:
- +$15.7 million increase for states and tribes to build tools, services and capabilities that will enable more efficient exchange of data between the agency, states, tribes, and regulated entities following E-Enterprise principles.

Categorical Grant: Pollution Control
(FY 2017 PB: $246.1 M, FY 2016 Enacted: $230.8 M, FY 2017 Change: +$15.4 M)

Significant changes include:
- +$15.4 million increase for states and tribes to implement water pollution control programs and strengthen their nutrient management efforts consistent with the 2011 Framework for state nutrient reduction.

Categorical Grant: Public Water System Supervision (PWSS)
(FY 2017 PB: $109.7 M, FY 2016 Enacted: $102.0 M, FY 2017 Change: +$7.7 M)

Significant changes include:
- +$7.7 million increase will enable states to provide assistance for systems to improve asset management programs, encourage financial planning that includes the development of efficient rate structures, identify potential threats to drinking water sources in a watershed, plan for water availability challenges such as droughts and floods, and evaluate the opportunities to facilitate water system partnerships.

Categorical Grant: Wetlands Program Development
(FY 2017 PB: $17.7 M, FY 2016 Enacted: $14.7 M, FY 2017 Change: +$3.0 M)

Significant changes include:
- +$3.0 million increase will fund competitively-awarded projects to build state and tribal program capacity to protect and restore coastal wetlands that provide vital ecological services, notably mitigating storm surge and providing carbon sequestrations. These capacity building projects will support an increase in the amount of coastal wetlands serving carbon sequestration functions and help reduce coastal flooding and erosion.

Categorical Grant: Beaches Protection
(FY 2017 PB: $0.0 M, FY 2016 Enacted: $9.5 M, FY 2017 Change: -$9.5 M)

Significant changes include:
- -$9.5 million reduction is an elimination of funding for this program project in FY 2017. States and local governments now have the technical expertise and procedures to continue beach monitoring without federal support, as a result of the significant technical guidance and financial support the Beach Program has provided.

Categorical Grant: Multipurpose Grants
(FY 2017 PB: $0.0 M, FY 2016 Enacted: $21.0 M, FY 2017 Change: -$21.0 M)

Significant changes include:
- -$21.0 million reduction is an elimination of funding for this program project in FY 2017 (new program in FY 2016).

Categorical Grant: Radon
(FY 2017 PB: $0.0 M, FY 2016 Enacted: $8.1 M, FY 2017 Change: -$8.1 M)

Significant changes include:
- -$8.1 million reduction eliminates funding for the SIRG program and focuses the agency's efforts toward maintaining public outreach efforts, encouraging action in the marketplace and driving progress at the federal level.

Targeted Airshed Grants
(FY 2017 PB: $0 M, FY 2016 Enacted: $20.0 M, FY 2017 Change: -$20.0 M)

Significant changes include:
- -$20.0 million reduction is an elimination of funding for this program project in FY 2017.

Facilities Infrastructure

Facilities Infrastructure and Operations
(FY 2017 PB: $525.8 M, FY 2016 Enacted: $491.2 M, FY 2017 Change: +$34.6 M)

Significant changes include:
- +$13.9 million increase to fixed and other costs is due to the recalculation of rent, utility and security estimates.
- +$8.6 million increase for construction related to space optimization and laboratory upgrades in Athens, GA, Denver, CO and Corvallis, OR.
- +$2.0 million increase to support basic facility operations and cost escalation for contracts that support activities like health and safety, custodial, landscaping, and warehouse activities at the EPA's research and development facilities and laboratories.
- +$1.3 million increase in funding for the agency's background investigation program.

Other Programs

Acquisition Management
(FY 2017 PB: $59.9 M, FY 2016 Enacted: $53.1 M, FY 2017 Change: +$6.8 M)

Significant changes include:
- +$3.55 million increase for EPA to adapt the EPA's Acquisition System (EAS) and other agency systems to comply with the DATA Act's reporting requirements.

Audits, Evaluation, and Investigations
(FY 2017 PB: $60.3 M, FY 2016 Enacted: $51.4 M, FY 2017 Change: +$8.9 M)

Significant changes include:
- +$6.9 million increase will provide essential workforce support and payroll.
- +$2.0 million increase will allow the agency to carry out all critical mission essential functions, including audit functions for the EPA and the U.S. Chemical Safety Hazard and Investigations Board.

Exchange Network
(FY 2017 PB: $26.8 M, FY 2016 Enacted: $18.3 M, FY 2017 Change: +$8.5 M)

Significant changes include:
- +$8.4 million increase for projects that will enable states, tribes, and the EPA to modernize its business processes following E-Enterprise principles. The projects will tie together the EPA's environmental program databases and information requirements and facilitate industries to routinely conduct environmental business transactions with the EPA.

Human Resources Management
(FY 2017 PB: $58.7 M, FY 2016 Enacted: $49.6 M, FY 2017 Change: +$9.0 M)

Significant changes include:
- +$2.5 million increase for contractual services to maintain basic human resource operations and support on-going national human resource priorities including training, human capital and strategic planning. +$1.4 million increase to strengthen the workforce management training needs and to support the additional Labor and Employee Relations workload in the regional offices.
- +$1.0 million increase in contractual services for the EPA University, an on-line central repository for all agency learning and development initiatives that will allow all employees to learn at any time and any place.

Information Security
(FY 2017 PB: $25.8 M, FY 2016 Enacted: $34.3 M, FY 2017 Change: -$8.4 M)

Significant changes include:
- -$8.4 million reduction in funding for cybersecurity related activities due to significant progress made through the FY 2016 Enacted budget. The net change will be realized from startup and one-time cost of acquisition and development of IT tools required to improve Agency's cybersecurity.

IT/Data Management
(FY 2017 PB: $124.4 M, FY 2016 Enacted: $100.8 M, FY 2017 Change: +$23.5 M)

Significant changes include:
- +$10.0 million increase for the improvement of the agency's record management and eDiscovery capabilities that will support the agency response to FOIA, congressional, and litigation-related information requests timely and efficiently.

- +$3.9 million increase for data analytics, visualization, and predictive analysis advances that will help the agency explore and address environmental, business and public policy challenges.
- +$2.3 million increase for further IT application and infrastructure enhancements to support exchange of information and shared services between the EPA, states, and tribes, in line with the agency's E-Enterprise business strategy.

Oil Spill: Prevention, Preparedness, and Response
(FY 2017 PB: $20.5 M, FY 2016 Enacted: $14.4 M, FY 2017 Change: +$6.1 M)

Significant changes include:
- +$3.3 million increase for oil accident prevention and preparedness activities including support for inspections at FRP (high risk) facilities, compliance and outreach activities, and further training opportunities for agency inspectors.
- +$2.0 million increase to support emergency responder training opportunities associated with the increased transportation and production of crude shale oils.

RCRA: Waste Management
(FY 2017 PB: $70.3 M, FY 2016 Enacted: $62.8 M, FY 2017 Change: +$7.5 M)

Significant changes include:
- +$3.4 million increase for development of the e-Manifest IT system. These funds will be pivotal in allowing the agency to accelerate system development in order to achieve e-Manifest system deployment by spring 2018.
- +$1.3 million increase to provide essential financial and technical assistance to a wide variety of Tribal waste management programs (e.g., remedying drinking water contamination and direct exposure to toxins and disease) to make a visible difference in Tribal communities.

Regulatory/Economic-Management and Analysis
(FY 2017 PB: $19.1 M, FY 2016 Enacted: $14.6 M, FY 2017 Change: +$4.5 M)

Significant changes include:
- +$1.6 million increase to enable the agency to incorporate recommendations from the National Academy of Sciences and conduct high-quality external technical peer reviews of influential methods and models, supporting efforts to develop analytical tools to improve risk assessment methods used in quantifying human health benefits, particularly to children.
- +$0.9 million increase to support development of an IT system for regulatory management that replaces existing outdated systems with regulatory management tools that streamline data entry, facilitate electronic workflows and digital signature, incorporate tasking and reporting, and integrate with external systems.
- +$0.7 million increase to support the continued refinement of methodologies to estimate costs and benefits of the agency's water quality rules.

Environmental Protection Agency
List of Acronyms

AA	Assistant Administrator
ACE	Air, Climate, and Energy
ACE/ITDS	Automated Commercial Environment/International Trade Data System
ACRES	Assessment Cleanup and Redevelopment Exchange System
ADR	Alternative Dispute Resolution
AFS	Air Facility System
AGO	America's Great Outdoors
ANCR	Annual Non-Compliance Report
AOP	Adverse Outcome Pathway
APEC	Asia-Pacific Economic Cooperation
ARA	Assistant Regional Administrator
ARRA	American Recovery and Reinvestment Act
ASTM	American Society for Testing and Materials
ATSDR	Agency for Toxic Substances and Disease Registry
B&F	Buildings and Facilities
BayTAS	Bay Tracking and Accounting System
BFRs	Brominated Flame Retardants
BOSC	Board of Scientific Counselors
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CAFE	Corporate Average Fuel Economy
CAFO	Concentrated Animal Feeding Operations
CAIR	Clean Air Interstate Rule
CAP	Clean Air Partnership
CASTNet	Clean Air Status and Trends Network
CBEP	Community-Based Environmental Protection
CBP	Customs and Border Protection
CBR	Chemical, Biological, Radiological
CBRN	Chemical, Biological, Radiological, and Nuclear
CCAP	Climate Change Action Plan
CCS	Carbon Capture and Storage
CCPS	Community Collaborative Problem Solving
CCTI	Climate Change Technology Initiative
CEIS	Center for Environmental Information and Statistics
CENRS	Committee on Environment, Natural Resources, and Sustainability
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Act
CMAQ	Community Multi-scale Air Quality
CMDS	Content Management and Discovery Services
COOP	Continuity of Operations
CRRR	Chemical Risk Review and Reduction Program
CSO	Combined Sewer Overflows
CWA	Clean Water Act
CWAP	Clean Water Action Plan
CWS	Community Water Systems
CWSRF	Clean Water State Revolving Fund
DASEES	Decision Analysis for a Sustainable Environment, Economy and Society
DBP	Disinfection Byproducts
DERA	Diesel Emissions Reduction Act
DFAS	Defense Finance and Accounting System

DfE	Design for the Environment
DHS	Department of Homeland Security
DMR	Discharge Monitoring Reports
DOD	Department of Defense
DOE	Department of Energy
DOI	Department of the Interior
DWSRF	Drinking Water State Revolving Fund
E3	Economy, Energy and Environment Partnership
ECHO	Enforcement and Compliance History Online
EDSP	Endocrine Disruptor Screening Program
EELC	E-Enterprise Leadership Council
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act of 2007
EJ	Environmental Justice
ELP	Environmental Leadership Project
EMP	Emergency Management Portal
EN	Enacted (Budget)
EO	Executive Order
EPAct	Energy Policy Act of 2005
EPCRA	Emergency Preparedness and Community Right-to-Know Act
EPM	Environmental Programs and Management
EPP	Environmentally Preferable Purchasing Program
ERRS	Emergency Rapid Response Services
ESC	Executive Steering Committee
ESI	Essential Science Indicator
ETI	Environmental Technology Initiative
ETV	Environmental Technology Verification
EU	European Union
EWDJT	Environmental Workforce Development and Job Training
FAN	Fixed Account Numbers
FASAB	Federal Accounting Standards Advisory Board
FCO	Funds Certifying Officer
FFDCA	Federal Food, Drug, and Cosmetic Act
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
FLC	Federal Leadership Committee
FMFIA	Federal Managers' Financial Integrity Act
FQPA	Food Quality Protection Act
FRP	Facility Response Plan
FSMA	Food Safety Modernization Act
FSMP	Financial System Modernization Project
FTE	Full-Time Equivalent
FUDS	Formerly Used Defense Sites
GAPG	General Assistance Program Grants
GHG	Greenhouse Gas
GHGRP	Greenhouse Gas Reporting Program
GIS	Geographic Information System
GMI	Global Methane Initiative
GPRA	Government Performance and Results Act
GSN	Green Suppliers Network
GWP	Global Warming Potential
HHRA	Human Health Risk Assessment
HHS	Department of Health and Human Services
HPPG	High Priority Performance Goals

HPV	High Production Volume
HS	Homeland Security
HSWA	Hazardous and Solid Waste Amendments of 1984
HWIR	Hazardous Waste Identification Rules
IA	Interagency Agreements
IAQ	Indoor Air Quality
ICR	Information Collection Rule
ICS	Industrial Control Systems
IG	Inspector General
IPCC	Intergovernmental Panel on Climate Change
IPM	Integrated Pest Management
IRIS	Integrated Risk Information System
IRM	Information Resource Management
ISA	Integrated Science Assessments
ISTEA	Intermodal Surface Transportation Efficiency Act
ITMRA	Information Technology Management Reform Act (Clinger/Cohen Act)
LEPC	Local Emergency Planning Committee
LGEAN	Local Government Environmental Assistance Network
LUST	Leaking Underground Storage Tanks
M&O	Management and Oversight
MACT	Maximum Achievable Control Technology
MARL	Microarray Research Laboratory
MATS	Mercury and Toxics Standards
MTM	Mountaintop Mining
NAAEC	North American Agreement on Environmental Cooperation
NAAQs	National Ambient Air Quality Standards
NAFTA	North American Free Trade Agreement
NAPA	National Academy of Public Administration
NAS	National Academy of Sciences
NASA	National Aeronautics and Space Administration
NATA	National-Scale Air Toxics Assessment
NCDC	National Clean Diesel Campaign
NCEA	National Center for Environmental Assessment
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEA	Nuclear Energy Agency
NESCA	National Enforcement Strategy for Correction Action
NDPD	National Data Processing Division
NEP	National Estuary Program
NEPA	National Environmental Policy Act
NEPPS	National Environmental Performance Partnership System
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NHTSA	National Highway Transportation Safety Administration
NHDPlus	USGS National Hydrography Dataset Plus
NIPP	National Infrastructure Protection Plan
NLIC	National Lead Information Center
NOA	New Obligation Authority
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPDWRs	National Primary Drinking Water Regulations
NPL	National Priority List
NPM	National Program Manager
NPR	National Performance Review
NPS	Nonpoint Source

NPSR	National Pesticide Standard Repository
NRCS	National Resource Conservation Service
NROC	Northeast Regional Ocean Council
NRF	National Response Framework
NRT	National Response Team
NVFEL	National Vehicle and Fuel Emissions Laboratory
OA	Office of the Administrator
OAM	Office of Acquisition Management
OAR	Office of Air and Radiation
OARM	Office of Administration and Resources Management
OCFO	Office of the Chief Financial Officer
OCHP	Office of Children's Health Protection
OCSPP	Office of Chemical Safety and Pollution Prevention
OECA	Office of Enforcement and Compliance Assurance
OECD	Organization of Economic Cooperation and Development
OEI	Office of Environmental Information
OEM	Office of Emergency Management
OERR	Office of Emergency and Remedial Response
OFA	Other Federal Agencies
OFPP	Office of Federal Procurement Policy
OGC	Office of the General Counsel
OIG	Office of the Inspector General
OIL	Inland Oil Spill Programs
OITA	Office of International and Tribal Affairs
OLEM	Office of Land and Emergency Management
OMTR	Open Market Trading Rule
OPA	Oil Pollution Act of 1990
OPAA	Office of Planning, Analysis, and Accountability
ORD	Office of Research and Development
OSRTI	Office of Superfund Remediation and Technology Innovation
OTAG	Ozone Transport Advisory Group
OW	Office of Water
PB	President's Budget
PBTs	Persistent Bioaccumulative Toxins
PCB	Polychlorinated Biphenyls
PC&B	Personnel, Compensation and Benefits
PESP	Pesticide Environmental Stewardship Program
PG	Priority Goal
PHEV	Plug-in Hybrid Electric Vehicles
PIP	Plant-incorporated Protectants
PIRT	Pesticide Inspector Residential Training
P2	Pollution Prevention
PM	Particulate Matter
PNGV	Partnership for a New Generation of Vehicles
POTWs	Publicly Owned Treatment Works
PPG	Performance Partnership Grants
PPIN	Pollution Prevention Information Network
PPRTV	Provisional Peer Reviewed Toxicity Values
PRC	Program Results Code
PREP	Pesticide Regulatory Education Program
PRIA	Pesticide Registration Improvement Act
PRIRA	Pesticide Registration Improvement Renewal Act
PWSS	Public Water System Supervision

RC	Responsibility Center
RCRA	Resource Conservation and Recovery Act of 1976
RGI	Regional Geographic Initiative
RLF	Revolving Loan Fund
RMP	Risk Management Plan
ROE	Report on Environment
RPIO	Responsible Planning Implementation Office
RR	Reprogramming Request
RRP	Renovation, Repair and Painting
RWTA	Rural Water Technical Assistance
SAP	Science Advisory Panel
SAB	Science Advisory Board
S&T	Science and Technology
SALC	Sub-allocation (level)
SARA	Superfund Amendments and Reauthorization Act of 1986
SBIR	Small Business Innovation Research
SBEAPs	Small Business Environmental Assistance Program
SBLRBRA	Small Business Liability Relief and Brownfields Revitalization Act
SBO	Senior Budget Officer
SBREFA	Small Business Regulatory Enforcement Fairness Act
SDWA	Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System
SERC	State Emergency Response Commission
SF	Hazardous Substance Superfund
SHC	Sustainable and Healthy Communities
SIP	State Implementation Plan
SIRG	State Indoor Radon Grants
SITE	Superfund Innovative Technology Evaluation
SLC	Senior Leadership Council
SNAP	Significant New Alternatives Policy
SNEE	Southern New England Estuaries
SPCC	Spill Prevention, Control and Countermeasure
SRF	State Revolving Fund
SRO	Senior Resource Official
SSWR	Safe and Sustainable Water Resources
STAG	State and Tribal Assistance Grants
STAR	Science to Achieve Results
STAR METRICS	Science and Technology in America's Reinvestment-Measuring Effects of Research on Innovation, Competitiveness, and Science
STEM	Science, Technology, Engineering, and Mathematics
STORS	Sludge-To-Oil-Reactor System
SWP	Source Water Protection
SWTR	Surface Water Treatment Rule
TASC	Technical Assistance Support for Communities
TIM	Technology Infrastructure Modernization
TIP	Tribal Implementation Plan
TMDL	Total Maximum Daily Load
TPP	Trans-Pacific Partnership Agreement
TRI	Toxic Release Inventory
TRIO	Taskforce on Research to Inform and Optimize
TSCA	Toxic Substances Control Act
TSD	Treatment, Storage, and Disposal
UIC	Underground Injection Control

USDA	U.S. Department of Agriculture
USGCRP	U.S. Global Change Research Program
UST	Underground Storage Tanks
WCF	Working Capital Fund
WF	Water Infrastructure Finance and Innovation Fund
WHO	World Health Organization
WIFIA	Water Infrastructure Finance and Innovation Act
WIRFC	Water Infrastructure and Resiliency Finance Center
WIPP	Waste Isolation Pilot Plant
WSI	Water Security Initiative
WTO	World Trade Organization

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