

**Draft FY 2018-2022 EPA Strategic Plan
Public Review Draft**

October 2, 2017

**U.S. Environmental Protection Agency
Washington, DC 20460**

Administrator's Message

(Reserved for final)

Introduction

EPA's Mission: To Protect Human Health and the Environment

Goal 1 – Core Mission: Deliver real results to provide Americans with clean air, land, and water.

Goal 2 – Cooperative Federalism: Rebalance the power between Washington and the states to create tangible environmental results for the American people.

Goal 3 – Rule of Law and Process: Administer the law, as Congress intended, to refocus the Agency on its statutory obligations under the law.

The U.S. Environmental Protection Agency (EPA) developed this *FY 2018-2022 EPA Strategic Plan* (the *Plan*) to: (1) refocus the Agency back to its core mission; (2) restore power to the states through cooperative federalism; and (3) lead the Agency through improved processes and adhere to the rule of law. The *FY 2018-2022 EPA Strategic Plan* sharply refocuses EPA on its role of supporting the primary implementers of environmental programs—states and tribes—by streamlining programs and processes, reducing duplication of effort, and providing greater transparency and listening opportunities, enabling the Agency to focus on its core mission work. Process, the rule of law, and cooperative federalism are necessary for an efficient and effective Agency to provide tangible and real environmental results to the American people.

EPA's senior managers will use this *Plan* routinely as a management tool to guide the Agency's path forward, tracking progress and assessing and addressing risks and challenges that could potentially interfere with EPA's ability to accomplish its goals. The three strategic goals established in the *Plan* are supported by strategic objectives and strategic measures focused on advancing human health and environmental end results over the next four years.¹ These longer-term strategic measures are supported by annual measures included in the annual performance plans and budgets that EPA submits to Congress. Operational measures, which rely heavily on regional, state, tribal, and local partner contributions, support achievement of the annual measures. The strategies and strategic measures in this *Plan* highlight key areas in which the Agency will make the most dramatic changes over the next four years, while the annual performance plans and budgets, and supporting annual and operational measures, address a broader range of the Agency's work. In addition, the Agency will hold quarterly and monthly meetings to help assess progress toward annual and long-term strategic measures.

EPA Administrator Scott Pruitt has established two-year agency priority goals (APGs) for accelerating progress on EPA priorities. APGs reflect the top near-term implementation performance improvement priorities of an agency's leadership. EPA's APGs have been selected from among the suite of strategic measures. These priority goals will be supported by two-year implementation plans and quarterly reporting.

¹ EPA is working to develop targets for the strategic measures, and baseline and universe information to support them.

FY 2018-2019 Agency Priority Goals

- Reduce the number of non-attainment areas.
- Increase the percentage of water infrastructure projects funded through EPA grants, loans, or public-private partnerships that achieve or maintain compliance.
- Make additional brownfields sites ready for anticipated use (RAU) and additional Superfund sites RAU site-wide.
- Complete (1) EPA-initiated Toxic Substances Control Act (TSCA) risk evaluations for existing chemicals, (2) TSCA risk management actions for existing chemicals, and (3) TSCA pre-manufacture notice final determinations in accordance with the timelines set forth in the statute.
- Increase the amount of non-EPA resources leveraged by projects receiving EPA infrastructure investments.
- Accelerate permitting-related decisions.

The *FY 2018-2022 EPA Strategic Plan* is supported by other, more detailed Agency plans in specific areas. For example, EPA's Human Capital Operating Plan details the actions the Agency will execute to achieve its overarching human capital goals, and its Information Technology/Information Management Strategic Plan will guide efforts to support and modernize its technology and data infrastructure. The Agency's workforce and reform efforts will support streamlining efforts to work more efficiently and effectively in the future. The many efforts described in these plans align with and help position the Agency to achieve the strategic goals and objectives presented in this *Plan*.

EPA is also in the process of deploying a Lean management system specifically designed to deliver measurable results that align with this *Plan*. Lean is a set of principles and tools designed to identify and eliminate waste from processes while maximizing customer value and return on taxpayer investment. Under Administrator Scott Pruitt's leadership, EPA will become a Lean organization.

Strategies to achieve EPA's goals and objectives are also informed by gathering evidence related to environmental problems and evaluating the effectiveness of the strategies that the programs use to address them. Examples of recent evidence and evaluation efforts used to develop this *FY 2018-2022 EPA Strategic Plan* and a preliminary list of future planned efforts can be found at [*Note: Add link when information available*].

The GPRA (Government Performance and Results Act) Modernization Act of 2010 directs agencies to consult with the Congress and requires that they solicit and consider the views and suggestions of those entities likely to be interested in or potentially affected by a strategic plan. Consultation with EPA's federal, state, local, and tribal government partners and our many stakeholders is integral to the Agency's strategic planning process. In developing the *FY 2018-2022 EPA Strategic Plan*, EPA issued a *Federal Register* notice and used www.regulations.gov to encourage and share feedback on the draft *Plan*. The Agency also sent notifications on the availability of the draft *Plan* to leaders of the Agency's Congressional authorizing, appropriations, and oversight committees, and notified all federally-recognized Indian tribes of the opportunity for consultation. These outreach efforts resulted in comments from approximately XXX organizations and individuals.

Goal 1 - Core Mission:
Deliver real results to provide Americans with clean air, land, and water.

Pollution comes in many forms with myriad impacts on human health and the environment. With the goal of clean and safe air, water, and land for all Americans, Congress enacted a range of environmental statutes that spell out EPA's core responsibilities. Our nation has come a long way since EPA was established in 1970. We have made great progress in making rivers and lakes safe for swimming and boating, reducing the smog that clouded city skies, cleaning up lands that were once used as hidden chemical dumps, and providing Americans greater access to information on the safety of the chemicals all around us. Today we can see enormous progress—yet we still have important work to do.

EPA has established priorities for advancing progress over the next four years in each of its core mission areas—land, air, water—as well as chemicals. The Agency will focus on speeding the cleanup of Superfund and brownfields sites, and will use a top ten list of sites to advance progress on Superfund sites of particular concern. We will work with states to more rapidly approve state implementation plans for attaining air quality standards, reducing contaminants that can cause or exacerbate health issues. We will achieve clean and safe water by updating aging infrastructure, both for drinking water and wastewater systems. And EPA's top priority for ensuring the safety of chemicals in the marketplace is the implementation of the new Frank R. Lautenberg Chemical Safety for the 21st Century Act, which modernizes the Toxic Substances and Control Act (TSCA) by creating new standards and processes for assessing chemical safety within specific deadlines. These efforts will be supported by strong compliance assurance and enforcement in collaboration with our state and tribal partners, and use of the best available science and research to address current and future environmental hazards, develop new approaches, and improve the foundation for decision making.

The Agency will collaborate more efficiently and effectively with other federal agencies, states, sovereign tribal nations, local governments, communities, and other partners and stakeholders to address existing pollution and prevent future problems. EPA will directly implement federal environmental laws on Indian lands where tribes have not taken on program responsibility. With our partners, we will pay particular attention to vulnerable populations. Children and the elderly, for example, may be at significantly greater risk from elevated exposure or increased susceptibility to the harmful effects of environmental contaminants. Some low-income and minority communities may face greater risks because of proximity to contaminated sites or because fewer resources are available to avoid exposure to pollutants. Much work remains, and together with our partners, we will continue making progress in protecting human health and the environment.

Objective 1.1 - Improve Air Quality:

Work with states to accurately measure air quality and ensure that more Americans are living and working in areas that meet high air quality standards.

Introduction

As part of its mission to protect human health and the environment, EPA is dedicated to improving the quality of the nation's air. From 1970 to 2016, aggregate national emissions of the six criteria air pollutants² were reduced over 70 percent, while gross domestic product grew by over 253 percent. Despite this progress, in 2016, more than 120 million people (about 40 percent of the U.S. population) lived in counties with monitored air at values greater than EPA regulations for at least one criteria pollutant. EPA's work to control emissions of air pollutants is critical to continued progress in reducing public health risks and improving the quality of the environment. Over the next four years, EPA will conduct a wide range of activities that contribute to improving air quality and protecting human health and the environment.

Strategic Measure

- Reduce the number of non-attainment areas.

Strategies for Achieving the Objective

EPA works in cooperation with states, tribes, and local governments to design and implement air quality standards and programs. EPA relies on other federal agencies, academia, researchers, industry, other organizations and the public. These partnerships are critical to achieving improvements in air quality and reducing public health risks.

EPA will prioritize key activities to support attainment of the national ambient air quality standards (NAAQS) and implementation of stationary source regulations. The Agency will address its Clean Air Act (CAA) responsibilities by collaborating with and providing technical assistance to states and tribes to develop plans and implement decisions that administer the NAAQS and visibility programs; taking federal oversight actions such as approving state implementation plan/tribal implementation plan (SIP/TIP) submittals consistent with statutory obligations; developing regulations and guidance to implement standards; and addressing transported air pollution. EPA will focus on ways to improve the efficiency and effectiveness of the SIP/TIP process, including the Agency's own review process, with a goal of maximizing timely processing of state/tribal-requested implementation plan actions to help states move more quickly to attainment.

EPA will operate effective nationwide and multi-state programs, such as the acid rain program and the cross-state air pollution rule, which address global, national, and regional air pollutants from the power sector and other large stationary sources. The Agency also will develop and provide data, analysis, and technical tools and assistance to industries, states, communities, and tribes to meet CAA obligations and other statutory requirements.

EPA also develops, implements, and ensures compliance with national emission standards to reduce mobile-source-related air pollution from light-duty cars and trucks, heavy-duty trucks and buses, nonroad

² The Clean Air Act (CAA) requires EPA to set National Ambient Air Quality Standards (NAAQS) for six common air pollutants including carbon monoxide, lead, ground-level ozone, nitrogen dioxide, particulate matter, and sulfur dioxide.

engines and vehicles, and their fuels—a priority for the Agency to ensure that industry has the certainty it needs while protecting human health and the environment. The Agency evaluates new emission control technology and provides information to state, tribal, and local air quality managers on a variety of transportation programs. EPA will review and approve vehicle and engine emissions certification applications and perform its compliance oversight functions on priority matters where there is evidence to suggest noncompliance. The Agency will also conduct pre-certification confirmatory testing for emissions and fuel economy for passenger cars.

EPA develops and implements national emission standards for stationary and mobile sources and works with state and local air agencies to address air toxics problems in communities. For stationary sources, pursuant to the CAA, EPA develops initial air toxics emissions standards for categories of industrial sources and reviews these standards' risk reduction and technological currency according to timeframes set by the Act. EPA will conduct these reviews to meet CAA requirements and to ensure that the air toxics rules appropriately protect public health.

To support our partners in meeting their CAA obligations, EPA will provide grants and technical assistance to state, local, and tribal air pollution control agencies to manage and implement their individual air quality programs, including funding for air quality monitoring. State and tribal air quality monitoring, which provides critical information for developing clean air plans, for research, and for public awareness, will be a focus of the Administration.

EPA will prioritize efforts to reduce the production, import, and use of ozone depleting substances (ODS), including reviewing and listing alternatives that are safer for the stratospheric ozone layer through implementation of Title VI of the CAA and the Montreal Protocol.

EPA also is responsible for measuring and monitoring ambient radiation and radioactive materials and assessing radioactive contamination in the environment. The Agency supports federal radiological emergency response and recovery operations under the National Response Framework and the National Oil and Hazardous Substances Pollution Contingency Plan. EPA will design essential training and conduct exercises to improve our nation's radiation response preparedness.

External Factors and Emerging Issues

Emerging measurement and information technologies are shifting the paradigm for air quality data. Traditionally, states, along with EPA, have been the primary resource for collecting, storing, sharing, and communicating air data. Increasingly, air quality information is also available from nontraditional sources, such as satellites or sensors. Additionally, big data companies are becoming involved in storing, analyzing, and presenting publicly available air quality data alongside other datasets. These developments are expected to have profound influence on understanding air quality, as well as determining the most cost-effective ways to improve air quality. EPA partners with states, through efforts such as E-Enterprise, and with other entities in a variety of ways to ensure that the Agency advances appropriate technologies and stays abreast of emerging technologies.

EPA engages in both domestic and international forums to address the depletion of the stratospheric ozone layer, a global problem that cannot be solved by domestic action alone. Success relies on joint action.

Lastly, there are several emerging issues and external factors that will affect how EPA protects the public from unnecessary exposure to radiation, including evolving policies on radioactive waste management; uranium extraction and processing technologies; a decrease in available radiation expertise; and new science on radiation health effects. The Agency will focus on continuing education, including formal and

informal training, in the areas of health physics, radiation science, radiation risk communications, and emergency response to fill existing and emerging gaps.

Objective 1.2 - Provide for Clean and Safe Water:

Ensure waters are clean through improved water infrastructure and, in partnership with states and tribes, sustainably manage programs to support drinking water, aquatic ecosystems, and recreational, economic, and subsistence activities.

Introduction

The nation's water resources are the lifeblood of our communities, supporting our economy and way of life. Across most of the country, we enjoy and depend upon reliable sources of clean and safe water. Just a few decades ago, many of the nation's rivers, lakes, and estuaries were grossly polluted, wastewater sources received little or no treatment, and drinking water systems provided very limited treatment to water coming through the tap. Now over 90 percent of the population receives safe drinking water from community water systems regulated by EPA or delegated states, and many formerly impaired waters have been restored and support recreational and public health uses that contribute to healthy economies.

We have made significant progress since enactment of the Clean Water Act, Safe Drinking Water Act, and Marine Protection, Research, and Sanctuaries Act. However, serious water resource and water infrastructure challenges remain. Many communities need to improve and maintain both drinking water and wastewater infrastructure and develop the capacity to comply with new and existing standards. Tens of thousands of homes, primarily in tribal and disadvantaged communities and the territories, lack access to basic sanitation and drinking water.

Over the next four years, EPA will work with states, territories, tribes, and local communities to better safeguard human health; maintain, restore, and improve water quality; and make America's water systems sustainable and secure, supporting new technology and innovation wherever possible.

Strategic Measures

- Reduce the number of community water systems out of compliance with health-based standards.
- Increase the percentage of water infrastructure projects funded through EPA grants, loans, or public-private partnerships that achieve or maintain compliance.
- Reduce the number of square miles of watershed with surface water not meeting standards.

Strategies for Achieving the Objective

Invest in infrastructure to spur environmental benefits and economic growth

Supporting state and local efforts to modernize the outdated drinking water, wastewater, and stormwater infrastructure on which the American public depends is a top priority for EPA. The Agency will promote construction of infrastructure in small, rural, and disadvantaged communities. EPA will support the state revolving fund (SRF) and Water Infrastructure Finance and Innovation Act (WIFIA) programs that will allow the Agency, states, municipalities, and private entities to finance high-priority infrastructure investments that protect human health and the environment. The revolving nature of the SRFs and the leveraging capacity of WIFIA greatly multiply the federal investment. For the clean water SRF, EPA estimates that every federal dollar contributed thus far has resulted in close to three dollars of investment in water infrastructure. For the drinking water SRF, for every one dollar the federal government invests, the states, in total, have been able to deliver \$1.80 in assistance to drinking water systems. For WIFIA, for

every \$20 million in appropriations, EPA could potentially provide approximately \$1 billion in credit assistance, which could spur an estimated \$2 billion in total infrastructure investment.

Protect Human Health

Sustaining the quality of our water resources is essential to safeguarding human health. More than 300 million people living in the United States rely on the safety of tap water provided by public water systems that are subject to national drinking water standards. EPA will help protect human health and make America's water systems secure by:

- Providing financial assistance to states to assist public water systems in protecting and maintaining drinking water quality;
- Strengthening compliance with drinking water standards to ensure protection of public health by enhancing the technical, managerial, and financial capability of those systems;
- Continuing to protect and restore water resources, including sources of drinking water, from contamination;
- Taking actions to address known and emerging contaminants that endanger human health;
- Supporting states, tribes, territories, and local communities in implementing water programs by providing guidance, training, and information;
- Ensuring the security and preparedness of the nation's drinking water supplies by implementing EPA's national security responsibilities for the water sector; and
- Protecting underground sources of drinking water by providing for the safe injection of fluids underground for storage, disposal, enhanced recovery of oil and gas, or minerals recovery.

Recent challenges in Flint, Michigan and elsewhere have highlighted the need to strengthen EPA's implementation of the Safe Drinking Water Act to ensure we protect and build upon the enormous public health benefits achieved through the provision of safe drinking water throughout the country. The Agency's highest priorities include reducing exposure to lead in the nation's drinking water systems, ensuring continuous compliance with contaminant limits, responding quickly to emerging concerns, and improving the nation's aging and insufficient drinking water infrastructure to address significant needs. EPA is also collaborating with states and tribes to share more complete data from monitoring at public water systems through the Safe Drinking Water Information System (SDWIS). This will allow for better targeting of federal and state funding and technical assistance resources, and improve data quality while increasing public access to drinking water data.

Human health and recreational criteria are the foundation for state and tribal tools to safeguard human health. Over the next four years we will improve our understanding of emerging potential waterborne threats to human health, provide technical assistance and resources to help the states monitor and prevent harmful exposures, and develop new or revised criteria as needed.

Protect and Restore Water Quality

Protecting the nation's waters relies on cooperation among EPA, states, tribes, and local communities and involves a suite of programs to protect and improve water quality in the country's rivers, lakes, wetlands, and streams, as well as in estuarine, coastal, and ocean waters. EPA will foster strong partnerships with other federal agencies, states, tribes, local governments, and other organizations that facilitate achieving water quality goals while supporting robust economic growth. In partnership with states, territories, local governments, and tribes, EPA core water programs will:

- Develop recommended water quality criteria for protecting designated uses of water;

- Assist states in adopting water quality standards that support designated uses;
- Establish pollution reduction targets for impaired waters;
- Improve water quality by financing traditional and nature-based wastewater treatment infrastructure;
- Develop national effluent guidelines that set a technology-based floor;
- Work with partners to protect and restore wetlands and coastal and ocean water resources;
- Prevent or reduce the discharge of pollutants;
- Update analytical methods that enable precise analysis; and
- Conduct monitoring and assessment so we know the status of the nation's waters.

EPA will partner with states and tribes to implement the National Aquatic Resource Surveys (NARS)³ to provide nationally-consistent and scientifically-defensible assessments of America's waters. These surveys will support EPA and its partners in identifying actions to protect and restore water quality and in assessing whether these efforts are improving water quality over time.

External Factors and Emerging Issues

Water quality programs face challenges such as increases in nutrient loadings, nonpoint source⁴ and stormwater runoff, and aging infrastructure. EPA is carefully examining the potential impacts of and solutions to these issues. Many important water quality problems have complex causes that can only be addressed through strategic use of both state and federal authorities. EPA will work closely with states and tribes to ensure that these issues are addressed in a coordinated and effective manner, particularly where water quality issues cross state lines. The Agency will implement the National Aquatic Resource Surveys to support collection of nationally-consistent data to support these efforts.

EPA is working with external partners and stakeholders to address the barriers to and incentives for ways that technology and innovation can accelerate improvements in water infrastructure and protection and restoration of waters. Some key market opportunities for innovative practices and technology to help address current and emerging water resource issues are identified in EPA's Blueprint for Integrating Technology Innovation into the National Water Program.⁵

³ Read more on NARS: <https://www.epa.gov/national-aquatic-resource-surveys>

⁴ Read more about nonpoint source pollution: <https://www.epa.gov/nps>

⁵ Read more about the technology blueprint: <https://www.epa.gov/innovation/water-technology-innovation-blueprints>

Objective 1.3 - Revitalize Land and Prevent Contamination:

Provide better leadership and management to properly clean up contaminated sites to revitalize and return the land back to communities.

Introduction

EPA works to improve the health and livelihood of all Americans by cleaning up and returning land to productive use, preventing contamination, and responding to emergencies. Challenging and complex environmental problems persist at many contaminated properties, including contaminated soil, sediment, surface water, and groundwater that can cause human health concerns.

One of EPA's top priorities is accelerating progress on Superfund sites. EPA recently convened a Superfund Task Force that identified 42 recommendations to streamline and improve the Superfund process. Over the next four years, these recommendations and other innovative ideas will be considered and applied to Superfund sites with priority given to addressing National Priority List (NPL) sites.⁶

EPA collaborates with other federal agencies, industry, states, tribes, and local communities to enhance the livability and economic vitality of neighborhoods. The Agency works with international, state, tribal, and local governments, and other federal agencies to achieve goals and help communities understand and address risks posed by releases of hazardous substances into the environment. EPA's efforts are guided by scientific data, tools, and research that inform decisions on addressing contaminated properties and preparing for and addressing emerging contaminants.

Strategic Measures

- Make additional Superfund sites ready for anticipated use (RAU) site-wide.
- Make additional brownfields sites `RAU.
- Make additional Resource Conservation and Recovery Act (RCRA) corrective action facilities RAU.
- Complete additional leaking underground storage tank (LUST) cleanups that meet risk-based standards for human exposure and groundwater migration.

Strategies for Achieving the Objective

Cleaning Up Contaminated Sites

Over the next four years, EPA will focus special attention on the Administrator's top ten list of Superfund sites and will implement Superfund Task Force recommendations to accelerate the pace of cleanups and promote reuse while addressing risks to human health and the environment. Cleanup actions can take from a few months for relatively straight-forward soil excavation or capping remedies to several decades for complex, large, area-wide groundwater, sediment, or mining remedies. NPL sites in the investigation stages will be expedited by developing strategies that apply new technologies and innovative approaches. NPL sites at which remedies have already been selected will be prioritized for faster completion and

⁶ Please see the Superfund Task Force Recommendations at https://www.epa.gov/sites/production/files/2017-07/documents/superfund_task_force_report.pdf

deletion from the NPL, as will sites that have been on the NPL for five years or longer without significant movement. Finally, the Agency will aim to accelerate cleanup by re-prioritizing some resources to focus on remedial actions, construction completions, ready-for-reuse determinations, and NPL site deletions.

In addition, EPA will work with communities to revitalize their brownfields sites and return them to productive use, advancing environmental and human health protection while stimulating economic development and job creation. EPA will award competitive grants to communities, states, and tribes to assess, clean up, and plan reuse of brownfields properties that are contaminated or perceived to be contaminated. To reduce risks from exposure to waste, consistent with RCRA, EPA or authorized states will oversee and manage cleanups by the owner or operator at 3,779 priority facilities. And EPA will support, along with its state and tribal partners, the cleanup of LUST sites and work to revitalize abandoned facilities. These cleanups protect people from exposure to contaminants, and can improve property values⁷ and provide redevelopment opportunities.

Preparedness and Response

EPA prepares⁸ for the possibility of nationally-significant incidents and provides guidance and technical assistance to state, tribal, and local planning and response organizations to strengthen their preparedness. During an incident, EPA works to prevent, mitigate, or contain the release of chemical, oil, radiological, biological, or hazardous materials. The Agency will work with industry, states, tribes, and local communities to ensure national safety and security for responses. EPA homeland security research fills critical scientific and technological gaps, enhancing the Agency's ability to carry out its mandated national preparedness and emergency response and recovery obligations, and informing disaster response and guidance. EPA develops the tools, methods, and data needed to implement our environmental statutes effectively and support EPA and local emergency responders in characterizing chemical, biological, or radiological (CBR) contamination, assessing exposure and risks to human health, cleaning up impacted urban areas, and improving community resilience.

Preventing Contamination

With its state and tribal partners, EPA works to prevent releases of contamination, allowing the productive use of facilities and land and contributing to communities' economic vitality. In partnership with tribes, the Agency directly provides training, compliance assistance, and inspection support to implement the 2015 underground storage tank (UST) regulations in Indian country. EPA also helps to prevent chemical releases by reviewing approximately 12,500 risk management plans (RMPs) and delivering RMP inspector training for federal and state inspectors. EPA seeks to prevent and prepare for accidental releases from chemical facilities that store hazardous chemicals by requiring chemical facilities that store a certain amount of hazardous chemicals to analyze the potential for accidental releases and possible consequences, develop an accident prevention program, and coordinate with communities to ensure that all are prepared to respond to a release.

EPA will update and improve the efficiency of the RCRA hazardous waste regulations to meet the needs of today's business and industry to ensure protective standards for managing hazardous waste. To prevent future environmental contamination and to protect the health of the estimated 20 million people living

⁷ A 2016 study found that high profile UST releases decrease nearby property values by 4% - 6%. Once cleanup is completed, nearby property values rebound by a similar margin. (Guignet, D; Martinez-Cruz, A 2016. Working Paper: The Impacts of Underground Petroleum Release on a Homeowner's Decision to Sell: A Difference-in-Difference Approach. NCEE Working Paper Series) Available at: <https://www.epa.gov/environmental-economics/working-paper-impacts-underground-petroleum-releases-homeowners-decision>

⁸ This work will be done consistent with the government-wide National Response Framework and the National Disaster Recovery Framework.

within a mile of a hazardous waste management facility,⁹ EPA will support states to issue, update, or maintain RCRA permits for the approximately 20,000 hazardous waste units (such as incinerators and landfills) at these facilities. EPA also will issue polychlorinated biphenyl (PCB) cleanup, storage, and disposal approvals, since this work cannot be delegated to states or tribes.

EPA will improve and modernize hazardous waste transportation and tracking by implementing the Hazardous Waste Electronic Manifest Establishment Act, enacted on October 5, 2012. The fee-based e-Manifest system will provide better knowledge of waste generation and final disposition, enhanced access to manifest information, and greater transparency for the public about hazardous waste shipments, and will reduce the burden associated with paper manifests by between 300,000 and 700,000 hours.¹⁰

As authorized in the Water Infrastructure Improvements for the Nation Act of 2016, EPA will help states develop plans, work to approve state permit programs for coal ash disposal, coordinate closely with the states on guidance for evaluating state permit programs, and implement a coal ash permit program in Indian country.

Over the next four years, EPA will provide technical assistance, assets, and outreach to industry, states, and local communities as part of its effort to ensure national safety and security for inland oil incidents. There are approximately 580,000 spill prevention, control, and countermeasure facilities, including a high-risk subset of 4,600 facility response plan facilities required to ensure that resources will be available to respond in the event of a discharge.

External Factors and Emerging Issues

A number of factors may delay cleanup timelines. For example, new scientific information (such as new toxicity information or a new analytical method) can call previous determinations into question. In general, cleanup standards have become more stringent over the years, and discovery of new pathways and emerging contaminants (such as vapor intrusion and per- and polyfluoroalkyl substances [PFAS]) have made remediation of remaining Superfund sites more challenging. Many of the Superfund sites remaining on the National Priorities List—including sediment, mining, and large groundwater sites—are large, contain multiple areas of contamination, and require more complex remediation efforts. Discovery of new sites, newly detected contamination, or emerging contaminants can also impact cleanup schedules.

Several external factors and emerging issues may affect the overall success of EPA's waste management and chemical facility risk programs. Rapidly changing technology, emerging new waste streams, and aging infrastructure present challenges, as does the complexity of issues and consideration of specific solutions for varying waste streams and situations.

The Agency recognizes that our state, tribal, local, and regional government partners face challenges in fully characterizing environmental outcomes associated with land. Over the next four years, EPA will emphasize the importance of engaging stakeholders at all levels and from all perspectives in making cleanup and land revitalization decisions.

⁹ U.S. EPA, Office of Land and Emergency Management Estimate. 2014. Data collected includes: (1) site information as of the end of FY 2011 from RCRAInfo; and (2) census data from the 2007-2011 American Community Survey.

¹⁰ From a 2009 programmatic estimate, cited in [Hazardous Waste Management System; Modification of the Hazardous Waste Manifest System; Electronic Manifests; Final Rule](#). 40 CFR § 260, 262, 263, 264, 265, and 271.

Objective 1.4 - Ensure Safety of Chemicals in the Marketplace:

Effectively implement the Toxic Substances Control Act, and the Federal Insecticide, Fungicide, and Rodenticide Act, to ensure new and existing chemicals and pesticides are reviewed for their potential risks to human health and the environment.

Introduction

Chemicals and pesticides released into the environment as a result of their manufacture, processing, use, or disposal can threaten human health and the environment. EPA gathers and assesses information about the risks associated with chemicals and pesticides and implements risk management strategies when needed. EPA's research efforts will help advance the Agency's ability to assess chemicals more rapidly and accurately.

In 2016, TSCA was amended by the Frank R. Lautenberg Chemical Safety for the 21st Century Act. The amendments give EPA significant new as well as continuing responsibilities for reviewing chemicals in or entering commerce to prevent unreasonable risks to human health and the environment, including unreasonable risks to potentially exposed or susceptible subpopulations. Proper implementation, as Congress intended, of the TSCA amendments is one of EPA's top priorities.

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) is the primary federal law governing oversight of pesticide manufacture, distribution, and use in the United States. FIFRA requires EPA to register pesticides based on a finding that they will not cause unreasonable adverse effects on people and the environment, taking into account the economic, social, and environmental costs and benefits of the use of the pesticide. Each time the law has been amended, Congress has strengthened FIFRA's safety standards while continuing to require consideration of pesticide benefits.

In addition to FIFRA, the Federal Food, Drug, and Cosmetic Act (FFDCA) governs the maximum allowable level of pesticides in and on food grown and sold in the United States. The legal level of a pesticide residue on a food or food item is referred to as a tolerance. FFDCA requires that the establishment, modification, or revocation of tolerances be based on a finding of a "reasonable certainty of no harm." When evaluating the establishment, modification, or revocation of a tolerance, EPA tries to harmonize the tolerance with the maximum residue levels (MRLs) set by other countries to enhance the trade of agricultural commodities.

Strategic Measures

- Complete EPA-initiated TSCA risk evaluations for existing chemicals in accordance with the timelines set forth in the statute.
- Complete TSCA risk management actions for existing chemicals in accordance with the timelines set forth in the statute.
- Complete TSCA pre-manufacture notice final determinations in accordance with the timelines set forth in the statute.
- Complete all cases of FIFRA-mandated decisions for pesticides registration review program.

- Improve the Pesticide Registration Improvement Act (PRIA) registration decision time frames for new pesticides.

Strategies for Achieving the Objective

Chemicals

Over the next four years, EPA will focus on meeting the statutory requirements and mandatory deadlines of the amended TSCA and ensuring that the reviews are efficient, effective, and transparent to EPA's stakeholders.

Under the chemical data reporting (CDR) rule, EPA collects basic exposure-related information from manufacturers (including importers) on the types, quantities, and uses of chemical substances produced domestically or imported into the United States. When TSCA was enacted in 1976, there were approximately 60,000 existing chemicals. The amended TSCA provides a framework for making progress in understanding and managing the risks associated with priority existing chemicals to prevent unreasonable risk posed by their use. The Act requires EPA to identify high- and low-priority existing chemicals and evaluate high-priority chemicals against a new risk-based safety standard. By December 2019, EPA must complete risk evaluations for the first ten high-priority chemicals, ramp up the risk evaluation process so that 20 high-priority chemicals are under evaluation at all times, and identify 20 low-priority chemicals which will not undergo further evaluation.¹¹ Chemical risk evaluations of existing chemicals must be completed within three years.¹² Stakeholder engagement is a vital part of the process—it helps inform EPA's prioritization of chemicals for assessment and determinations of chemical safety as a result of the assessments.

The Agency has two years to address unreasonable risks identified as warranted for action by the findings of the chemical risk evaluations.¹³ Risk management actions may include prohibiting, restricting, or modifying the manufacture, processing, distribution in commerce or commercial use, modifying the labeling, recordkeeping, and other restrictions.

For new chemicals, EPA assesses the potential risks for approximately 1,000 new chemicals or new chemical uses submitted by industry each year, and establishes risk reduction/management techniques prior to their entry into the marketplace as necessary.¹⁴ The amended TSCA has new requirements for positive determinations of chemical safety, which resulted in changes to EPA's assessment process for new chemicals. EPA reviews and takes action on new chemical notices submitted by industry, including pre-manufacture notices (PMNs), to ensure that the chemicals are not likely to pose unreasonable risk upon their entry into U.S. commerce. EPA has 90 days to make an affirmative determination of safety based on whether the chemical substance will present, may present, or is not likely to present an unreasonable risk to human health or the environment, or that the available information is insufficient to enable the Agency to make any of the above determinations. Under the TSCA amendments, if EPA makes an "insufficient information" determination, the Agency will work with the submitter to conduct testing needed to make a determination or will impose restrictions on the substance that prevent exposure from occurring.

¹¹ To initiate new risk evaluations promptly, EPA will begin the chemical substance prioritization process 9-12 months prior to designating which chemical evaluations it will start.

¹² TSCA section 6(b)(4)(G) requires risk evaluations be completed within 3 years of initiation but allows for an extension to this deadline "for not more than 6 months."

¹³ TSCA section 6(c)(1) requires final regulatory action within 2 years of publication of the final risk evaluation but allows for an extension to this deadline "for not more than 2 years."

¹⁴ Including nanoscale materials and products of biotechnology

EPA will protect legitimate claims of confidentiality of the identity of chemicals. The Agency will increase transparency of chemical data by reviewing within 90 days all chemical identity confidential business information (CBI) claims for certain types of submissions and for 25 percent of most other CBI claims. As of July 17, 2017, EPA has received more than 12,000 CBI claims, of which 4,096 were determined to need review under TSCA's new requirements.

The Agency uses a variety of tools and approaches to assess, prevent, and reduce chemical releases and exposures, and empowers stakeholders by ensuring access to chemical data and other information and expertise. EPA annually publishes the Toxics Release Inventory (TRI), a public database that contains release and other waste management information (e.g., recycling) and pollution prevention data on over 650 toxic chemicals from approximately 20,000 industrial and federal facilities.

Pesticides

EPA is responsible for licensing (registering) and periodically reevaluating (registration review) pesticides to protect consumers, pesticide users, workers who may be exposed to pesticides, children, and other sensitive populations, while considering the benefits associated with the use of the pesticide. EPA seeks public input on all pesticide reevaluations; all new active ingredients; first food uses; and the establishment, modification, or revocation of tolerances. For example, the rules governing the registration review program (40 CFR 155) typically provide for three distinct comment periods at various stages of the review process. In making pesticide decisions, the Agency often seeks input from stakeholders to address specific information, such as real-world use patterns and benefits to the user community.

EPA works with other federal, state, and tribal agencies, trade organizations, industry, and non-governmental organizations to ensure the effective and safe use of pesticides. EPA also has long provided financial support and expertise to tribes and states so that they can provide training, education, and outreach to pesticide applicators about the safe, proper, and legal use of pesticides. States and tribes work with farmers, businesses, and public agencies to protect human health and the environment and serve as a critical part of job training and business growth in rural areas.

External Factors and Emerging Issues

The amended TSCA provides EPA the authority to collect user fees to defray up to 25 percent of the Agency's costs to administer TSCA Sections 4, 5, 6, and 14. While EPA has the authority to set and collect the fees, it has no control over how much revenue the fees will generate. That will be determined in large part by how the fee-paying community responds to the new fees in terms of their number of fee-related submissions or requests.

New pests and disease vectors carried by pests create challenges for managing pesticides. EPA works closely with public health officials, researchers, and agricultural experts to identify emerging pests, and with industry to expeditiously register pesticides that address issues while ensuring pesticide safety. Assessing and appropriately addressing risks is complex. The Agency must determine safe, effective methods of pesticide use, weighing differing risks for humans and ecosystems. For example, one pesticide may have lower risks for humans than do other pesticides, but have increased risks for pollinators or endangered species. Similarly, a pesticide may have risks for humans, but may be appropriate to fight mosquitos that carry diseases that also pose risks to humans.

EPA continues its trust responsibility by conducting education and outreach with tribes. One challenge is ensuring that the flow of information on the safe use of pesticides reaches more than 500 federally-recognized tribes across the country, and comes in forms that result in protective actions on the ground.

**Goal 2 – Cooperative Federalism:
Rebalance the power between Washington and the states to create tangible
environmental results for the American people.**

The idea that environmental protection is a shared responsibility between the states, tribes, and federal government is embedded in our environmental laws, which in many cases provide states and tribes the opportunity and responsibility for implementing environmental protection programs. More than 45 years after the creation of EPA and the enactment of a broad set of federal environmental protection laws, most states, and to a lesser extent territories and tribes, are authorized to implement environmental programs within their jurisdictions in lieu of EPA-administered federal programs. Specifically, states have assumed more than 96 percent of the delegable authorities under federal law.¹⁵ There are, however, some programs that by statute may not be delegated to the states. Further, as a part of its trust responsibilities, EPA maintains responsibility for implementing environmental programs in much of Indian country. Recognizing these evolving responsibilities, EPA will adapt its practices to reduce duplication of effort with authorized states and tailor its oversight of delegated programs.

Cooperative federalism—the relationship between states and EPA—is not just about who makes decisions, but about how decisions are made and a sense of shared accountability to provide positive environmental results. EPA understands that improvements to protecting human health and the environment cannot be achieved by any actor operating alone, but only when the states and EPA, in conjunction with affected communities, work together in a spirit of trust, collaboration, and partnership. Effective environmental protection is best achieved when EPA and its state partners work from a foundation of transparency, collaboration—including public participation—and a spirit of shared accountability for the outcomes of this joint work. This foundation involves active platforms for public participation, including building the capacity of the most vulnerable community stakeholders to provide input. With these public participation opportunities, the beneficiaries of environmental protection, the American people, will be able to more meaningfully engage through their communities, their local governments, and their state governments. Including the public’s voice, particularly the voices of the most vulnerable to environmental and public health challenges among us, in EPA’s policy, regulatory, and assistance work is essential to meeting their needs as the Agency implements its statutory responsibilities.

EPA also recognizes that meeting the needs of states, local governments, and communities, and achieving environmental improvements cannot be done in isolation from economic growth. Opportunities for prosperous economic growth and clean air, water, and land are lost without effective infrastructure investments that align with community needs, especially infrastructure investments that repair existing systems, support revitalization of existing communities and buildings, take advantage of existing roads, and lead to the cleanup and redevelopment of previously-used sites and buildings. Currently, there is a gap between infrastructure funding demands and available resources. EPA will play a role in closing this gap by optimizing and aligning its relevant programs to catalyze other resources to close this gap, support beneficial infrastructure investments, and meet community needs for thriving economies and improved environmental and human health outcomes.

¹⁵ Environmental Council of the States (ECOS) Paper, “[Cooperative Federalism 2.0](#),” June 2017

Objective 2.1 - Enhance Shared Accountability:

Improve environmental protection through joint governance and compliance assistance among state, tribal, local, and federal partners.

Introduction

In the spirit of cooperative federalism, EPA and its partners have made enormous progress in protecting air, water, and land resources. EPA recognizes that states vary in the environmental challenges that they face due to variations in geography, population density, and other factors. The unique relationship among EPA and its co-regulators is the foundation of the nation's environmental protection system—each organization fulfills a critical role based on its expertise, abilities, and responsibilities in protecting and improving human health and the environment.

EPA recognizes the advances states and tribes have made in implementing environmental laws and programs. This Administration will undertake a series of initiatives to rethink and assess where we are and where we want to be with respect to joint governance. These initiatives will clarify the Agency's statutory roles and responsibilities and tailor state oversight to maximize our return on investment and reduce burden on states, while assuring continued progress in meeting environmental program requirements as established by Congress.

In addition, EPA—with its state, tribal, and local partners—ensures consistent and fair enforcement of federal environmental laws and regulations. The Agency uses a full set of compliance assurance tools, such as compliance assistance and monitoring, electronic reporting, traditional enforcement, grants to states and tribes, and tribal capacity building, to work jointly with its co-regulators to protect human health and the environment. EPA will build on progress achieved to date with E-Enterprise for the Environment, which uses a cooperative federalism model under which states, tribes, territories, and EPA collaborate to develop and improve compliance assurance tools.

EPA directly implements the majority of federal environmental programs in Indian country. The Agency actively works with tribes to develop their capacity to administer environmental programs and to enable tribes that choose to implement federal environmental laws and programs for their lands.

Strategic Measures

- Increase the number of grant commitments achieved by states, tribes, and local communities.
- Increase the use of alternate joint governance approaches to address state, tribal, and local community reviews.

Strategies for Achieving the Objective

Joint Governance

To develop a future model of joint governance that takes into account the progress states have made in protecting human health and the environment, the Agency will undertake an analysis of EPA's statutory roles and responsibilities to determine what we have to do and assess what we want to do in light of priorities. As part of this process, the Agency will pilot new approaches to tailoring state transactional oversight (e.g., permits) where we have the legal flexibility to do so and streamlining those processes by which EPA reviews and approves state actions.

The National Environmental Performance Partnership System (NEPPS) has long served as a model for advancing cooperative federalism by providing the flexibility needed to address the unique needs of individual states and tribes to achieve the best environmental results. A performance-based approach for organizing working relationships with states and many tribes, NEPPS provides specific benefits, such as greater flexibility to assess environmental conditions, set joint priorities, and strategically leverage resources, thus improving cooperative federalism, joint governance, and shared accountability. EPA will work with states and tribes to strengthen cooperative federalism principles through NEPPS.

As a starting point the EPA is initiating a review of the use of Performance Partnership Grants (PPGs), an important tool in NEPPS. PPGs are a financial tool that allows states and tribes to combine separate “streams” of categorical grant funding, from across 20 eligible categorical grants, into one multi-program grant with a single budget. The goal of the review is to understand PPG utilization and outline a course of action addressing the challenges, leveraging lessons learned and progress achieved over the last 22 years. The intent is to provide states the flexibility to maximize human health and environmental protection achieved by the funds; further enhance the federal, state, and/or tribal partnership; and promote the goals of NEPPS.

EPA will respect the important role governors play in cooperative federalism and will seek their views and perspectives on compliance assistance and other opportunities to improve the EPA-state partnership. In addition, the Agency will work to strengthen intergovernmental consultation methods to engage stakeholders and hear diverse views on the impacts of prospective regulations.

Local governments also have a unique relationship with EPA as partners and often as innovative problem solvers. EPA works with local governments to build stronger and more robust partnerships and bring local concerns forward into Agency decision making. As part of these efforts, EPA seeks advice from the Local Government Advisory Committee (LGAC), a chartered policy committee comprising elected and appointed local officials, on the impacts of the Agency’s regulations and policies on local governments.

Consistent with the 2011 EPA Policy on Consultation and Coordination with Indian tribes, EPA will build tribal capacity to implement federal programs—through delegations, authorizations, and primacy designations—and enable tribes to meaningfully participate in the Agency’s policy making, standard setting, and direct implementation activities under federal environmental statutes. EPA will work with individual tribes on a government-to-government basis to develop and implement an EPA-Tribal Environmental Plan (ETEP), a joint planning document for achieving stronger environmental and human health protection in Indian country. ETEPs identify tribal, EPA, and shared priorities, and the roles and responsibilities for addressing those priorities.

EPA will focus its direct implementation efforts on areas of high need for human health or environmental protection, including programs identified in the ETEP for which the tribe does not currently anticipate seeking delegation, authorization, or primacy. In carrying out its direct implementation activities, EPA will work closely with the tribe to bolster tribal capacity for subsequent tribal program implementation. EPA will encourage tribes to participate in policy making and to assume appropriate partial roles in the implementation of programs as opportunities are available.

Compliance Assurance

Over the next four years, the Agency will enhance the compliance assurance tool box in collaboration with its state, tribal, local, federal, and industry partners. For example, the E-Enterprise Web Portal will allow the states, tribes, regulated community, and EPA to transact business, such as permitting and reporting, and provide easy access to needed compliance assistance information. EPA will expand its compliance assistance work by continuing to partner with third-party organizations and federal agencies to support the 17 existing web-based, sector-specific compliance assistance centers and developing new centers. In general, an expanded and modernized compliance assurance tool box will enhance our ability to tailor compliance assurance approaches to the differing needs and challenges among states and regulated entities.

A key component of EPA's overall compliance assurance program is compliance monitoring. Compliance monitoring allows the regulatory agency to detect noncompliance and promote compliance with the nation's environmental laws. EPA, state, and tribal inspectors often provide regulated entities with compliance assistance during the inspection process. On a national level, EPA works closely with individual states, tribes, and state and tribal associations to develop, modernize, and implement national compliance monitoring strategies to ensure a level playing field for regulated entities across the country. The Agency principally focuses compliance monitoring activities, such as field inspections, electronic reporting, and data analysis tools, on those programs that are not delegated to states and tribes, and provides monitoring, program evaluations, and capacity building to support and complement authorized state, tribal, and local government programs. The Agency will work with its state and tribal partners to enhance compliance monitoring tools and increase the use of Lean practices. Through E-Enterprise for the Environment, EPA, states, tribes, and territories will collaborate to develop smart mobile tools to enhance the effectiveness and efficiency of state, tribal, and EPA inspectors, and support advanced monitoring technology.

International Partnerships

To achieve the Agency's domestic environmental and human health objectives, the EPA will work with international partners to address international sources of pollution, as well as the impacts of pollution from the United States on other countries and the global environment. Pollution impacts air, water, food crops, and food chains, and can accumulate in foods such as fish. EPA efforts will include working with international partners to strengthen environmental laws and governance to more closely align with U.S. standards and practices and to help level the playing field for U.S. industry.

External Factors and Emerging Issues

Advances in the field of information technology and social science research may offer innovative ways to promote compliance. EPA is partnering with states to help prepare for and use these technologies and research to carry out our statutory obligations. EPA also will work closely with the Environmental Council of the States (ECOS), state program associations, and individual states, tribes, and territories to implement the Administrator's vision for cooperative federalism. In partnership with ECOS, EPA plans to develop principles and best practices for enhancing collaboration among EPA and states on compliance assurance work.

Objective 2.2 - Increase Transparency and Public Participation:

Listen to and collaborate with impacted stakeholders and provide effective platforms for public participation and meaningful engagement.

Introduction

EPA will strengthen its community-driven approach, which emphasizes public participation to better partner with states, tribes, and communities and to maximize the support and resources of the entire Agency to create tangible environmental results. The Agency will deploy its collective resources and expertise to collaborate with states and communities and support locally-led, community-driven solutions to improved environmental protection and economic growth. Increased transparency, the facilitation of public participation, and an emphasis on cooperation and collaboration will provide a more comprehensive understanding of community needs.

The Agency also will coordinate better across its programs and with federal partners to ensure mutual efforts are aligned, including consideration of vulnerable groups and communities in decisions, and will reflect community needs in its actions and investments, recognizing that the needs of rural communities may not be the same as urban areas. Increasing transparency and public participation in EPA's work with other agencies will enhance the Agency's ability to partner with states, tribes, and local governments and increase responsiveness to the needs of their most vulnerable communities. EPA will serve as a convener and leverage resources with new and existing partners to deliver services more efficiently and effectively. The Agency also will engage regulated entities to identify reforms to more efficiently and effectively meet the nation's environmental goals.

Strategic Measures

- Increase the amount of non-EPA resources leveraged by projects receiving EPA infrastructure investments.
- Reduce the backlog and meet statutory deadlines for responding to Freedom of Information Act (FOIA) requests and appeals.
- Eliminate unnecessary or duplicative reporting burdens to the regulated community.

Strategies for Achieving the Objective

Over the next four years, EPA will meet community needs through public participation, building community capacity through grants, technical assistance, partnering, and meaningful engagement. The Agency will leverage recommendations provided by federal advisory committees, such as the National Environmental Justice Advisory Council (NEJAC), LGAC, and Children's Health Protection Advisory Committee (CHPAC), and focus on partnerships representing vulnerable populations, such as youth, the elderly, and school groups. Specifically, the Agency will engage with the focus communities identified by EPA regions to understand each community's goals and identify its environmental priorities and needs, recognizing that rural communities and more urban areas may have different priorities.

Given that investment in infrastructure is necessary for economic growth and environmental protection and that EPA investments are catalytic to both, EPA's efforts will be used to support private and public investment in economic revitalization and improved environmental outcomes across the country. This requires that EPA reimagine its infrastructure and community assistance programs (e.g., the clean water

SRF, drinking water SRF, Water Infrastructure Finance and Innovation Act, environmental justice, community revitalization, and brownfields area-wide planning grant programs) to better align EPA investments with each other and with other federal investments in pursuit of economic revitalization and improved environmental outcomes. At the same time, EPA will ensure that it is serving disadvantaged communities, leveraging private investment to improve the economy, and protecting human health and the environment.

EPA will work in a focused manner to make infrastructure and public health protection investments in communities, and with or through partners, such as states and tribes. To further integrate and implement community environmental considerations within EPA programs, the Agency will create tools to facilitate incorporation of community understanding, needs, and concerns across program activities and advance more systematic incorporation of existing tools and needs, such as use of the Environmental Justice Screening and Mapping Tool (EJSCREEN) and EnviroAtlas. EPA will develop a cross-Agency communities team to lead regional involvement in and resourcing of community-based environmental work through a fully-integrated resource platform.

The Agency will work to coordinate across the federal government, with EPA regions partnering with federal agencies in focus communities to deliver services more efficiently and effectively. Such partnerships will leverage resources and expertise from across EPA and a range of outside partners to advance economic revitalization through the environmental and health goals of communities. The Agency will also continue leadership of and involvement in the Office of Management and Budget (OMB) Community Solutions Taskforce to better access and leverage resources from across federal agencies, and will strengthen coordination with the Interagency Working Group on Environmental Justice to better integrate EPA priorities and support and engage communities. In addition, EPA will support and align its work with the activities and priorities of the President's Task Force on Environmental Health Risks and Safety Risks to Children.

EPA will work on the E-Enterprise Web Portal's Assistance Gateway, which provides tools and resources for communities to facilitate two-way communication between the public and environmental agencies. The Agency will determine how EPA, states, and tribes can most effectively harness and benefit from the recent, rapid development of environmental monitoring technologies that are smaller, more portable, and less expensive than traditional methods. EPA will support the E-Enterprise joint governance structure to enhance collaboration and communication with communities. The Agency will seek to increase the number and type of public participation platforms it has to ensure that the public can meaningfully participate in all of EPA's work—including policy making, regulatory development, outreach, education, and community engagement.

EPA will also focus on reducing the FOIA backlog the Agency has built up over the years, and enhance the FOIA process. The complexity and volume of electronic documents required to be searched, collected, and reviewed has increased over time. The Agency will ensure that it can support the timely searching and collection of electronically-stored information for purposes of responding to FOIA requests and other information needs in a cost-effective, sustainable manner. This should not only help the Agency provide the public information requested, but also reduce the fees and lawsuits the Agency incurs from missing FOIA response deadlines.

External Factors and Emerging Issues

Resources are critical to the expansion of technical assistance directed at communities and state, tribal, and local government partners that support community-focused engagement and collaboration. Staff must be available for a wide variety of implementation activities—e.g., direct community engagement and support, intra- and inter-agency coordination, and partnering effectively with states and tribes.

In addition, the challenges of coordinating across offices within EPA and with other federal agencies can inhibit the identification and delivery of creative solutions and services that can lead to tangible results for communities and a more effective leveraging of government resources. EPA recognizes the need to communicate successes and achievements related to this work, both to market its effectiveness and to teach new partners and practitioners how to replicate successful models and approaches.

Goal 3: Rule of Law and Process
Administer the law, as Congress intended, to refocus the Agency on its statutory obligations under the law.

EPA will seek to reinvigorate the rule of law and process as it administers the environmental laws as Congress intended, and to refocus the agency on its basic statutory obligations. To accomplish this, EPA will work cooperatively with states and tribes to ensure compliance with the law, as well as to create consistency and certainty for the regulated community.

Compliance with the law is not just about enforcement—it is about ensuring consistency and certainty for the regulated community so it has a complete understanding of the impact of proposed actions on human health, the environment, and the economy, and a clear path and timeline to achieve that compliance. Policies and rules will reflect common sense, consistent with EPA’s statutory authorities, and the public will benefit from greater regulatory and economic certainty. EPA will enforce the rule of law in a timely manner and take action against those that violate environmental laws to the detriment of human health or the environment.

One of EPA’s highest priorities must be to create consistency and certainty for the regulated community. Consistency in how the laws and regulations are applied across the country is part of that process, and EPA will undertake a variety of efforts to ensure that consistency in application is evaluated and addressed. It is as important to apply rules and policies consistently as it is to create certainty by meeting the statutory deadlines that are required for EPA’s actions. The rule of law must also be built on the application of robust science that is conducted to help the Agency meet its mission and support the states in achieving their environmental goals. Research, in conjunction with user friendly applications needed to apply the science to real-world problems, will help move EPA and the states forward in making timely decisions based on sound science.

Carrying out this goal requires that EPA improve the efficiency of its internal business and administrative operations. First, EPA’s business operations, specifically the vast permitting processes established by the different environmental statutes, are key to ensuring economic growth and human health and environmental protection. Over the next four years, EPA will modernize its permitting practices to increase the timeliness of reviews and decisions, while working more collaboratively, transparently, and cost effectively to achieve the Agency’s mission. The second part of improving internal operations includes reducing EPA’s overhead and creating more efficient and effective administrative processes (e.g., acquisition) that allow EPA to accomplish its core mission work.

Objective 3.1 - Compliance with the Law:

Enforce environmental laws to correct noncompliance and promote cleanup of contaminated sites.

Introduction

For decades, the protections mandated by federal environmental laws have been essential to the growth of American prosperity. Noncompliance with those laws diminishes shared prosperity and unfairly tilts the field of economic competition in favor of those that skirt the law. To carry out its mission to protect human health and the environment, EPA, in collaboration with state and tribal partners, relies on a strong national compliance assurance and cleanup enforcement program.

EPA's enforcement priorities remain focused on cleaning up hazardous waste sites and addressing the most significant violations consistent with EPA's statutory authorities. The overwhelming majority of EPA's enforcement actions are taken in programs that are: (1) not delegable to the state or a federally-recognized tribe; (2) in states or tribes that have not sought authorization to implement a delegable program; or (3) in states or tribes that do not have the resources or expertise, or that seek assistance from the Agency—and all of these actions are taken in coordination with the states or tribes. In states with authorized programs, EPA and states share enforcement responsibility, with primary enforcement responsibility residing with the state.¹⁶ EPA is responsible for addressing violations that occur in Indian country in the absence of an approved program.

Even in states or tribes authorized to implement a program, EPA serves a critical role in addressing serious national noncompliance problems, such as those affecting multiple states. EPA also may assist a state or tribe in remediating noncompliance problems when it is unable to address the problem because it lacks the capability or resources, such as in actions against federal or state agencies. And for some serious violations, the Agency and states or tribes may decide that the best approach is a joint enforcement action. Further, EPA will take immediate action when there is an environmental emergency, such as an oil spill or chemical accident. Through the State Review Framework (SRF), EPA periodically reviews authorized state and tribal compliance monitoring and enforcement programs, using criteria agreed upon by states and tribes, to evaluate performance against national compliance monitoring or enforcement program standards. When states or tribes do not achieve standards, the Agency works with them to make progress. However, EPA may also take a lead implementation role when authorized states or tribes have a documented history of failure to make progress toward meeting national standards.

In all of its work, EPA's enforcement program strives to address noncompliance in an efficient and timely manner, applying a broad range of enforcement and compliance tools to achieve the goal of reducing noncompliance.

Strategic Measures

- Reduce the time between the identification of an environmental law violation and its correction.
- Increase environmental law compliance rate.

¹⁶ See e.g., ECOS Resolution 98-9, U.S. EPA Enforcement in Delegated States (revised September 28, 2016), describing the EPA and state roles in enforcement in authorized states: "WHEREAS, U.S. EPA and the States have bilaterally developed policy agreements which reflect those roles and which recognize the primary responsibility for enforcement action resides with the States, with U.S. EPA taking enforcement action principally where the State requests assistance, is unwilling or unable to take timely and appropriate enforcement actions, or in actions of national interest, or in actions involving multiple state jurisdictions."

Strategies for Achieving the Objective

Civil Enforcement

The overall goal of EPA's civil enforcement program is to maximize compliance with the nation's environmental laws and regulations to protect human health and the environment. The Agency works closely with the U.S. Department of Justice, states, tribes, territories, and local agencies to ensure consistent and fair enforcement of all 12 major environmental statutes. EPA will seek to strengthen environmental partnerships with its state and tribal partners, encourage regulated entities to correct violations rapidly, ensure that violators do not realize an economic benefit from noncompliance, and pursue enforcement to deter future violations.

EPA recognizes that significant environmental progress has been made over the years, much of it due to enforcement efforts by EPA, states, tribes, and local communities. To maximize compliance over the next four years, the Agency will refocus efforts toward areas with significant noncompliance issues and where enforcement can address the most substantial impacts to human health and the environment. Recognizing the role of states and tribes as the primary implementers where authorized by EPA to implement the federal statutes, EPA will focus resources on direct implementation responsibilities and the most significant violations, and assisting authorized states and tribes in meeting national standards. EPA is responsible for direct implementation for programs that are not delegable or where a state or tribe has not sought or obtained the authority to implement a particular program (or program component). Examples include the Clean Air Act mobile source program, pesticide labeling and registration under FIFRA, enforcement in Indian country, enforcement of the federal Superfund cleanup program, and enforcement of non-delegated portions of various other laws, including RCRA, the CWA, and stratospheric ozone under the CAA. EPA also will pursue enforcement actions at federal facilities where significant violations are discovered and ensure that federal facilities are held to the same standards as the private sector and will provide technical and scientific support to states and tribes with authorized programs.

Criminal Enforcement

Over the next four years, EPA will collaborate and coordinate with the U.S. Department of Justice, and state, tribal, and local law enforcement counterparts to ensure that the Agency responds to violations as quickly and effectively as possible. EPA enforces the nation's environmental laws through targeted investigation of criminal conduct committed by individual and corporate defendants that threatens human health and the environment. The Agency plays a critical role across the country since states and tribes have limited capacity to prosecute environmental crimes. The Agency will focus resources on the most egregious environmental cases (i.e., those presenting significant human health and environmental impacts).

Cleanup Enforcement

Through the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund), EPA will facilitate prompt site cleanup and use an "enforcement first" approach that maximizes the participation of liable and viable parties in performing and paying for cleanups. The Agency will protect communities by ensuring that potentially responsible parties (PRPs) conduct cleanups at Superfund sites, preserving federal taxpayer dollars for sites where there are no viable contributing parties, and by recovering costs if the EPA expends Superfund-appropriated dollars to clean up sites. EPA also will address liability concerns that can be a barrier to potential reuse. Addressing the

risks posed by Superfund sites and returning them to productive use strengthens the economy and spurs economic growth.

Over the next four years, EPA will focus its resources on the highest priority sites, particularly those that may present an immediate risk to human health or the environment. In accordance with the Superfund Task Force Report, the Agency will improve and revitalize the Superfund program to ensure that contaminated sites across the country are remediated to protect human health and the environment and returned to beneficial reuse as expeditiously as possible. At federally-owned sites, EPA will also focus on resolving formal disputes under the federal facility agreements.

External Factors and Emerging Issues

Advanced monitoring technology and information technology are rapidly evolving, and advances in these fields offer great opportunities for improving the ability of EPA, states, and tribes to ensure compliance. EPA, states, and tribes do, however, face challenges in keeping up with the rapid pace of change in these technologies. In addition, social science research and knowledge may offer innovative ways to promote compliance. EPA is partnering with states and tribes to help prepare for and use these technologies, consistent with statutory and regulatory obligations. The Agency will collaborate with ECOS and state associations to maximize the use of these technologies and modernize programs. For example, EPA will work with states and academics to pilot and evaluate innovative compliance methods.¹⁷ EPA will work with states to integrate advanced pollution monitoring and information technology into Agency work.

¹⁷ [ECOS Resolution 17-2: On the Value of Diverse and Innovative Approaches to Advance Compliance \(2017\)](#)

Objective 3.2 - Create Consistency and Certainty:

Outline exactly what is expected of the regulated community to ensure good stewardship and positive environmental outcomes.

Introduction

The regulatory framework is inherently dynamic. As part of its statutory obligations, EPA is required to publish many regulations within a set timeframe each year that implement environmental programs as well as assist the Agency's operations. These regulations address newly mandated responsibilities as well as updates and revisions to existing regulations. As EPA meets its obligations to protect human health and the environment through regulatory action, it must also meet another key responsibility—minimizing “regulatory uncertainty” that unnecessarily causes businesses and communities to face delays, planning inefficiencies, and compliance complexities that impede environmental protection, economic growth, and development. EPA will employ a set of strategies to reduce regulatory uncertainty while continuing to improve human health and environmental outcomes consistent with the Agency's authorities as established by Congress. These strategies, which reflect EPA's commitment to cooperative federalism and commitment to the rule of law, will also help advance Agency goals for streamlining and modernizing permitting and enhancing shared accountability.

Strategic Measure

- Meet legal deadlines imposed on EPA.

Strategies for Achieving the Objective

As EPA issues new or revised regulations, businesses and individuals can find it challenging to know which rules apply to them and to adjust their compliance strategies. Over the next four years, EPA will reinvigorate its approach to regulatory development and prioritize meeting its statutory deadlines to ensure that expectations for the regulated community and the public are clear and comprehensive and that Agency actions are defensible and consistent with its authorities. The Agency will use new approaches and flexible tools to minimize regulatory uncertainty and will communicate more comprehensively to realize more consistent and better environmental outcomes, while centering work on statutory and regulatory obligations. EPA will strengthen working relationships with industry sectors to understand better their needs and challenges in implementing EPA requirements and with communities to understand their concerns. This knowledge will enable the Agency to develop better policies and regulations to protect human health and the environment in line with the authorities given to EPA by Congress.

On average, the EPA faces approximately twenty legal challenges under the various environmental statutes each year that assert that the agency has missed a statutory or regulatory deadline for taking an action or has unreasonably delayed taking an action. In addition, the Agency faces nearly the same number of legal challenges under the Freedom of Information Act for failure to comply with the deadlines in that law. Responding to these challenges often diverts significant EPA resources away from priority activities, and could impact the Agency's ability to fulfill its commitments. In order to facilitate achievement of this goal, EPA will undertake a systematic mapping of the processes associated with these obligations and implement improvements where needed.

In addition, EPA will develop and engage stakeholders in reviewing a draft base catalog of responsibilities that statutes require EPA to perform in programs delegated to states and tribes. The base catalog, to be complete by 2019 and subsequently updated as necessary, will provide EPA a foundation to

make decisions that reduce contradictory policy determinations at headquarters and across regions. It will also support EPA cooperative federalism commitments aimed at minimizing duplication and overlap among regions, headquarters, states, and tribes. This effort also leverages another commitment that EPA is making under cooperative federalism—to identify for all environmental media an inventory and timeline for state-led permits that EPA reviews.

The Agency will establish a national network to ensure consistent implementation of policy across all regions. EPA will review regulatory guidance documents to identify key opportunities and will clarify and realign Agency approaches to improve consistency and clarity. EPA will strengthen working relationships with states, tribes, and local communities to transfer knowledge, leveraging its commitments under cooperative federalism, such as the collaboration under E-Enterprise for the Environment. EPA will make available to states and tribes tools or services designed by other federal agencies, states, tribes, or local communities that enhance efficiency, reduce burden on the regulated community, and improve environmental outcomes.

External Factors and Emerging Issues

A number of factors and emerging issues may impede the Agency's ability to meet this strategic objective. Sustainable resource levels and a strong workforce are critical to success. Proposing and finalizing regulations is often a multi-year process, which can be challenged by lawsuits. EPA also recognizes the need to communicate successes and achievements, both to market effectiveness and to teach others how to replicate successful models and approaches.

Objective 3.3 - Prioritize Robust Science:

Refocus the EPA's robust research and scientific analysis to inform policy making.

Introduction

EPA will identify, assess, conduct, and apply the best available science to address current and future environmental hazards, develop new approaches, and improve the scientific foundation for environmental protection decisions. EPA conducts problem-driven, interdisciplinary research to address specific environmental risks, and is committed to using science and innovation to reduce risks to human health and the environment, based on needs identified by EPA's program offices and state and tribal partners. Specifically, over the next four years, the Agency will strengthen alignment of its research to support EPA programs, regions, states, and tribes in accomplishing their top human health and environmental protection priorities for improved air quality, clean and safe water, revitalized land, and chemical safety. The Agency will also emphasize the translation of its work products for end user application and feedback.

EPA research will be reviewed by various scientific advisory boards (e.g., Board of Scientific Counselors) that are made up of recognized experts in various scientific, engineering, and social science fields and may be from industry, business, public and private research institutes or organizations, academia, government (federal, state, local, and tribal) and nongovernmental organizations, and other relevant interest areas.

Strategic Measure

- Increase the percentage of decisions using EPA research and scientific analysis.

Strategies for Achieving the Objective

Air Quality

EPA's research will advance the science and provide the information critical to improving air quality and informing stationary source regulations, vehicle and fuel standards and certification, emission inventories, air quality assessments, and domestic ozone actions. The results of Agency research to support air quality program priorities will inform EPA programs; state, local, and tribal air programs; as well as communities and individuals about measures and strategies to reduce air pollution. Researchers will publish peer-reviewed scientific journal articles to disseminate research findings as appropriate and consistent with resource and program needs.

Over the next four years, the Agency will:

- Deliver state-of-the-art tools for states to use in identifying effective emission reduction strategies to meet national ambient air quality standards and enhance air quality measurement methods used to ascertain compliance with NAAQS.
- Assess human and ecosystem exposures and effects associated with air pollutants on individual, community, regional, and global scales.
- Develop and evaluate approaches to prevent and reduce pollution, particularly sustainable, cost-effective, and innovative multi-pollutant and sector-based approaches.
- Provide human exposure and environmental modeling, monitoring, metrics, and information needed to inform air quality decision making at the state and local level.

Safe and Sustainable Water Resources

EPA will develop innovative, cost-effective solutions to current, emerging, and long-term water resource challenges for complex chemical and biological contaminants. Using a systems approach to develop scientific and technological solutions for protecting human health and aquatic ecosystems, EPA researchers partner with program experts, federal and state agencies, tribes, local communities, academia, nongovernmental organizations, and private stakeholders.

Over the next four years, the Agency will:

- Support safe drinking water by focusing research on assessing the distribution, composition, and health impacts of known and emerging chemical and biological contaminants.
- Improve methods for fast and efficient waterborne pathogen monitoring in recreational waters.
- Investigate health impacts from exposure to harmful algal/cyanobacteria toxins, and develop innovative methods to monitor, characterize, and predict blooms for early action.
- Support states in meeting their priorities and setting water quality and aquatic life thresholds.
- Assist states, communities, and utilities in addressing stormwater and wastewater infrastructure needs through applied modeling, technical assistance, and capture-and-reuse risk assessments.
- Provide water reuse research support on potable and non-potable use guidance for states.

Sustainable and Healthy Communities

EPA will conduct research to support regulatory activities and protocol development for the National Oil and Hazardous Substances Pollution Contingency Plan and provide on-demand technical support at federal-, tribal-, or state-managed cleanup sites, as well as assistance during emergencies. The Agency conducts health, environmental engineering, and ecological research and prepares planning and analysis tools for localities nationwide to use in facilitating regulatory compliance and improving environmental and health outcomes.

Over the next four years, EPA will:

- Provide technical support to the states through technical support centers for remediating CERCLA-designated contaminated sites and returning them to productive use.
- Assist regional, state, and local leaders in reducing costs and setting science-based cleanup levels in areas designated under CERCLA.
- Characterize sites and contaminants released from leaking underground storage tanks identified under the LUST Trust Fund.
- Work with the ECOS/Environmental Research Institute of the States (ERIS) to evaluate the causal relationships between ecosystem goods and services and human health, and to document these relationships using EnviroAtlas.
- Assess the impact of pollution (e.g., health impact assessments) on such vulnerable groups as children, tribes, environmental justice communities, and other susceptible populations.

Chemical Safety

EPA will evaluate and predict impacts from chemical use and disposal and provide states with information, tools, and methods to make better informed, more timely decisions about the thousands of chemicals in the United States. The Agency will produce innovative tools that accelerate the pace of data-

driven evaluations, enable knowledge-based decisions that protect human health, and advance the science required to anticipate and solve problems.

Over the next four years, EPA will:

- Provide tools to more efficiently and cost-effectively evaluate the biological activity and health risks of chemicals and reduce the use of toxicity tests to animals.
- Use ToxCast/Tox21 data to develop high-throughput risk assessments, particularly for chemicals for which adequate risk assessment information has been historically unavailable.
- Develop online software tools to provide information on thousands of chemicals and integrate health, environmental, and exposure data to support regulatory and prioritization decisions.
- Explore how high-throughput exposure and hazard information can be combined to predict the potential for exposure and risk to susceptible subpopulations.
- Conduct nanoparticle research by using life-cycle analyses, evaluating impacts on ecosystem health, and supporting the development of safer nanomaterials in private industry.

Human Health Risk Assessment

EPA also will focus on the science of assessments that inform Agency, state, and tribal decisions and policies. These risk assessments provide the research and technical support needed to ensure safety of chemicals in the marketplace, revitalize and return land to communities, provide clean and safe water, and work with states to improve air quality.

Over the next four years, EPA will:

- Develop a portfolio of chemical evaluation products that use the best available science for use by EPA, states, tribes, and other federal agencies.
- Provide research and scientific support for proper TSCA implementation, as Congress intended.
- Develop assessment products, peer-reviewed toxicity values, and advanced exposure assessment tools to help inform Superfund and hazardous waste cleanups as required by RCRA and CERCLA.
- Provide scientific support to the risk and technology reviews conducted under the CAA.
- Provide integrated science assessments (ISAs) to support decisions to retain or revise the national ambient air quality standards. ISAs also inform benefit-cost and other analyses conducted by state and local officials to support implementation of air quality management programs.
- Provide research and technical support to deliver safe drinking water by evaluating exposures to and health impacts of known and emerging chemical and biological contaminants.

External Factors and Emerging Issues

EPA faces a number of challenges in its commitment to conducting robust science. Aging information technology infrastructure, for example, presents a risk to information security and limits the capacity for information management. Recruiting and maintaining a strong workforce with appropriate scientific and technical skillsets are also critical to EPA's research efforts.

Objective 3.4 - Streamline and Modernize:

Issue permits more quickly and modernize our permitting and reporting systems.

Introduction

EPA implements a host of environmental statutes that affect the regulated community. Permitting requirements under these statutes can impose a variety of costs, including direct costs and opportunity costs related to uncertainty, delay, and cancellation. Delays in the approval of permits and modifications by federal or state permitting authorities can postpone or prevent manufacturers from building, expanding, or beginning operations, even if the affected operations ultimately may be deemed suitable as proposed. Delays can also impact construction of major infrastructure projects. EPA is committing to speeding up approvals of permits and modifications to create certainty for the business community, leading to increased jobs and economic prosperity, and streamlining permit renewals, which incorporate up-to-date information and requirements more quickly, improving environmental protection. Further, EPA will continue to convert permit applications and reports that rely on paper submissions to electronic processing in order to reduce burden, shorten the wait for approval, and increase the opportunity for public transparency.

Strategic Measure

- Accelerate permitting-related decisions.

Strategies for Achieving the Objective

Over the next four years, EPA will systematically collect and report permitting data for each of its permitting programs. The Agency will also employ business process improvement strategies, such as Lean, to improve efficiencies in all permitting processes and meet our commitments. The Agency will also work with states and use Lean techniques to streamline the review of state-issued permits. Solutions may include conducting earlier triage and communications, conducting Agency reviews in parallel with public reviews, and/or focusing reviews where they add the most value.

EPA will also consider where policy changes can improve permitting efficiency without sacrificing environmental results. Examples include expanding the scope of minor permit modifications to reduce the number of permit reviews required, reinvigorating the use of plant-wide applicability limits (PALs) to reduce unnecessary permitting transactions, and increasing states' ability to incorporate federal regulations by reference, enabling them to adjust quickly and efficiently to new regulatory provisions.

EPA will modernize permitting and reporting processes through E-Enterprise for the Environment, a collaboration among EPA, states, tribes, and territories, building upon efforts to date:

- E-Enterprise Web Portal: A web portal that allows the states, tribes, regulated community, and EPA to transact business, such as permitting and reporting, and provides easy access to needed information.
- E-reporting: A systematic digital approach that enables states, tribes, and the regulated community to move from paper-based to electronic reporting.
- E-permitting: An online system to ensure the ability to apply for, track the status of, and receive a permit electronically.

- The Environmental Information Exchange Network: Managed under the collaborative leadership of EPA, states, territories, and tribes, a communication, data, and services platform for submitting and sharing environmental information among partners to foster informed decision making.
- SPeCS for SIPs (State Plan Electronic Collection System for State Implementation Plans): A web-based system for authorized state, local, and tribal governments to submit and manage SIPs under the Clean Air Act.

External Factors and Emerging Issues

Sustainable resource levels for states and EPA are critical to efforts to streamline and modernize permitting processes. Support from states and tribes, including state and tribal capacity for maintaining and increasing delegation, is also critical. The global shift to digital services for communication and transaction raises expectations of EPA stakeholders and provides more robust approaches and technologies for developing electronic services.

Objective 3.5 - Improve Efficiency and Effectiveness:

Provide proper leadership and internal operations management to ensure that the Agency is fulfilling its mission.

Introduction

To support its mission to protect human health and the environment, EPA will improve the efficiency and effectiveness of its business processes. Focus areas will include financial, facility, human resource, contract, grant, and information technology/information management. EPA will improve its future workforce, modernize and streamline its business practices, and take advantage of new collaborative and cost-effective tools and technologies. The Agency will build a modern and secure work environment that will protect critical information and support its efforts to address the environmental problems of the 21st century. EPA will work to alleviate challenges associated with outdated or non-existent policies, tension between centralized and decentralized approaches, myriad federal acquisition and grants requirements, complex processes, and fluctuating levels of expertise across Agency programs.

Strategic Measures

- Reduce unnecessary or unused office, warehouse, and lab space.
- Reduce procurement processing time.
- Improve operational processes.
- Increase enterprise adoption of shared services.

Strategies for Achieving the Objective

EPA will modernize and improve business processes and operations to promote transparency, efficiency, and effectiveness; enhance collaborative, results-driven partnerships with internal and external business partners; recruit, develop, and maintain a highly-skilled, diverse, and engaged workforce; and improve the capabilities and cost-effectiveness of its information technology (IT) and information management (IM) systems.

EPA will apply Lean principles and will leverage input from customer-focused councils, advisory groups, surveys, workgroups, acquisition partnership initiatives, technical user groups, portfolio reviews, and federal advisory committees to identify business process streamlining opportunities. To improve the efficiency and cost effectiveness of its operations, EPA will standardize and streamline internal business processes in its acquisition and grants processes and systems and use additional federal and/or internal shared services when supported by business case analysis.

EPA will ensure its workforce is positioned to accomplish the Agency's mission effectively by providing access to quality training and development opportunities that will improve staff's and managers' skills, knowledge, and performance, and prepare them to capitalize on opportunities that advance progress. EPA will improve its workforce planning and management strategies, strengthen its Senior Executive Service, and focus on developing and maintaining a highly-skilled technical workforce.

EPA also will transform and modernize its information systems, tools, and processes to improve how the Agency collaborates both internally and with external stakeholders. EPA will enhance the power of

information by delivering on-demand data to the right people at the right time. To enable the Agency, its partners, and the public effectively to acquire, generate, manage, use, and share information—a critical resource in protecting human health and the environment—EPA will improve its IT/IM capabilities and customer experiences. EPA will employ enterprise risk management and financial data analytics to support data management decision making, using the enterprise risk management framework mandated by OMB Circular A-123.

To ensure that critical environmental and human health information is adequately protected, EPA will strengthen its cybersecurity posture. The Agency will focus on implementing two key cybersecurity priorities—the mandated federal-government-wide Continuous Diagnostics and Mitigation (CDM) effort, and the complementary EPA-specific Cyber Risk Mitigation Projects (CRMPs). These two priorities introduce or improve upon dozens of cybersecurity capabilities, enhance the Agency’s ability to respond to threats, and improve EPA’s privacy posture via the Privacy Act of 1974. EPA will work closely with the Department of Homeland Security and other partners in implementing CDM capabilities.

To better understand complex interactions between pollutants and the environment and address the environmental problems of the 21st century effectively and efficiently, EPA and its partners analyze large volumes of data. EPA will develop a comprehensive data management strategy that addresses the collection, management, and use of data generated both internally and from external partners including states/tribes, grantees, the regulated community, and citizen science. The Agency will deploy new data analysis, data visualization, and geospatial tools in a Cloud-based framework to enable analysis and provide the basis for informed decision making.

Environmental decision making across media programs requires access to high-quality data and analytics, and EPA will build shared IT services, maximizing the benefits of our investments and ensuring consistency and scalability in tools and services. Over the next four years, EPA programs that receive submissions from outside the Agency—whether from the reporting community, states, tribes, or local governments—will rely increasingly on centrally-developed and maintained information services, decreasing the volume of code each program must develop and maintain. Shared services will reduce reporting burden for submitting entities and improve data quality for EPA. EPA programs, states, and tribes must establish a common catalog of shared services and agree to a minimum set of common standards and practices.

The Agency will enhance its extensive information resources by designing an enterprise-wide information architecture that will facilitate the electronic management of data and information, as well as multimodal access, effective searching, and ease of use. The Agency’s future information management architecture will support official recordkeeping requirements, as well as daily document management, business processes, information access, and legal needs of EPA employees and organizations, while also being flexible, scalable, and cost effective.

External Factors and Emerging Issues

EPA faces a number of factors that may impede its ability to promote effective and efficient internal operations. The Agency’s ability to attract and retain staff skilled in human resources, IT/IM, cybersecurity, and acquisition management and staff with scientific and technical expertise is a continuing challenge in improving Agency operations. A lack of category-focused skills and business acumen can negatively affect strategic sourcing decisions. Myriad federal acquisition and grant requirements, complex processes, and varying levels of expertise across Agency programs often prevent the timely awarding of contract and grant vehicles to meet Agency demands. EPA must increase its competencies in these areas through a robust training program for staff and managers.

Without standard business processes, EPA cannot achieve its objectives. For example, tension between local needs and Agency-wide strategies may result in missed opportunities to make effective strategic sourcing decisions. This not only impedes Agency efforts to modernize business processes and streamline IT infrastructure, but also affects the ability of government shared service providers to serve additional customers and use standard software to achieve efficiencies and cost savings. Furthermore, continually changing IT/IM and security requirements and variation among states and tribes require development of a holistic “Enterprise-Level Vision and Data Strategy” that optimizes both business processes and solutions; aligns all data programs, resources, and budgets; and strengthens the Agency’s enterprise risk strategies. Demands for IT/IM services will continue to grow, due to the increasing volume of environmental data and increased expectations of other agencies, regulated entities, the public, and EPA staff. As cybersecurity risks evolve, protecting EPA’s information assets will continue to be a challenge.