

water service lines to targeting enforcement in communities impacted by harmful air pollutants, communities that have been plagued by multiple sources of pollution for decades should finally see progress. The historic investment in EPA from the Bipartisan Infrastructure Law¹ will expand our capacity to deliver for the American people.

EPA will also support the Administration’s Justice40 initiative by prioritizing benefits to underserved communities in developing requests for grant applications and in making grant award decisions, to the extent permitted by law. We have already seen an increase in external civil rights cases being referred to the EPA, and we are investigating them to ensure that recipients of EPA dollars do not discriminate based on race, color, national origin, sex, disability, age, or retaliation.

EPA plays a critical role in the Biden-Harris Administration’s whole-of-government approach to tackling climate change. In 2021, EPA issued a rule to phase down production and consumption of hydrofluorocarbons, a potent greenhouse gas. EPA will further reduce greenhouse gas emissions by issuing rules to reduce pollution from the power sector, setting vehicle emission standards, and partnering with the public and private sectors to increase energy and resource efficiency in the residential, commercial, and industrial sectors. In addition, the Agency’s Climate Adaptation Action Plan describes our commitment and the steps we will take to help the country anticipate, prepare for, and avoid disruptive impacts due to climate change. EPA will lead by example and refocus our internal operations on carbon pollution-free energy use and net-zero emissions in line with federal sustainability goals.

In addition, we will continue to advance EPA’s goal to protect public health and the environment from per- and polyfluoroalkyl substances (PFAS), long-lasting “forever chemicals” that are present in our water, soil, air, and food, exposing most people in the United States.² To safeguard communities and ecological systems from PFAS contamination, EPA will leverage the full range of statutory authorities, developing technologies, and partnerships with other federal agencies to prevent PFAS from entering air, land, and water; accelerate the cleanup of PFAS contamination; and invest in the necessary research.

How we work is critical to achieving the goals in EPA’s *Strategic Plan*. EPA will renew our Tribal government-to-government relationships, expand our intergovernmental collaboration with our state and local government partners, and reach out to the regulated community and key stakeholders. We are committed to improving on-the-ground community engagement, enhancing our collaboration with the business community, delivering high-impact environmental education programs, and increasing public trust and transparency. We will protect our most vulnerable, especially children, where they live, learn, play, pray, and work, to ensure their lifelong health and well-being. We will strive for organizational excellence by working more effectively, efficiently, securely, equitably, and with a smaller carbon footprint. We will secure fair, equitable, and transparent acquisitions. And most importantly, we will build a workforce of the future that is representative of our diverse American population.

¹ The Infrastructure Investment and Jobs Act was signed into law on November 15, 2021. It is referred to as the Bipartisan Infrastructure Law (BIL) in the *Strategic Plan*.

² For more information, see: <https://www.epa.gov/pfas/pfas-explained>.

attention to equity and enhancing mission-support functions to achieve organizational excellence; and renewing EPA’s commitment to its trust responsibility to Tribal nations⁴ and engagement with Tribal, state, and local government partners, stakeholders, the regulated community, and the public.

EPA’s *Strategic Plan* includes a suite of long-term performance goals (LTPGs) that reflect the quantifiable outcomes the Agency will achieve for each strategic objective and cross-agency strategy by 2026. LTPGs will help to understand, monitor, and tell the story of progress being made to partners and stakeholders, Agency employees, and the public. LTPGs provide the means for accountability.

In addition, EPA has identified three FY 2022-2023 Agency Priority Goals (APGs), which are intended to jumpstart actions and showcase progress toward Administrator Regan’s priorities:

- Phase down the production and consumption of hydrofluorocarbons (HFCs);
- Deliver tools and metrics for EPA and its Tribal, state, local, and community partners to advance environmental justice and external civil rights compliance; and
- Clean up contaminated sites and invest in water infrastructure to enhance the livability and economic vitality of overburdened and underserved communities.

For the first time, EPA’s *Strategic Plan* incorporates a Learning Agenda and Capacity Assessment, consistent with the requirements of the Foundations for Evidence-Based Policymaking Act of 2018.⁵ The goal is to achieve a culture of evidence-building, continuous learning, and evaluation in EPA’s operations and decisions. The Learning Agenda will address key questions across priority areas by leveraging high-quality data. The Capacity Assessment will guide Agency efforts to develop the skills, expertise, and infrastructure that support routine, rigorous use of data. The Agency also identified emerging issues and external factors for consideration in developing strategies to carry out the *Plan*. This included strategic foresight horizon scanning, which involved literature reviews and interviews with experts to identify emerging issues on selected topics.

Engaging with federal, Tribal, state, and local government partners and the Agency’s many stakeholders is an integral part of strategic planning. For the first time, EPA conducted early outreach prior to issuance of the *Draft Plan*. Through this engagement, the Agency sought to understand what matters most to its Tribal and state partners and stakeholders as it works to achieve the mission and find ways to work together to achieve the goals. EPA issued a *Federal Register* notice and used www.regulations.gov to encourage and share feedback on the *Draft Plan*. EPA sent notification of the availability of the *Draft Plan* to partner and stakeholder organizations. The Agency also initiated consultation with Tribal partners and Congress. As a result of this concerted outreach, EPA received and considered comments from a wide range of organizations and individuals,⁶ which has made this *Strategic Plan* stronger and more inclusive.

⁴ In this Strategic Plan, the terms “Tribe” and “Tribal nation” are referring to federally recognized Indian Tribes. Federally recognized Indian Tribes are those Tribes that have met criteria established by the Department of the Interior or are designated by law as eligible to receive federal benefits, federal services, and federal protections. The special relationship federally recognized Tribes have with the United States is known as the government-to-government relationship.

⁵ Full-text of the Foundations for Evidence-Based Policymaking Act of 2018: <https://www.congress.gov/bill/115th-congress/house-bill/4174/text>.

⁶ Public comments are available at: <https://www.regulations.gov/docket/EPA-HQ-OA-2021-0403/comments>.

environmental justice and civil rights in the Agency’s core work; and (3) strengthening civil rights enforcement in communities overburdened by pollution. The first focuses on EPA’s ability to advance this priority outside of EPA — through the support the Agency provides directly to communities, EPA’s direct implementation of federal environmental programs, and the implementation of these programs by co-regulators. The second objective focuses on advancing equity, justice, and civil rights through EPA’s internal program activities such as permitting actions, responding to emergencies, and cleaning up contamination. EPA recognizes that environmental justice and external civil rights programs and their authorities are distinct and they share a deep connection and ability to reinforce and leverage one another to make significant progress in addressing disproportionate adverse impacts burdening communities. For example, civil rights laws, taken together with EPA’s environmental justice efforts, can effectively target disparities in exposure to pollution on the basis of race, color, national origin, and other characteristics such as disability. The final objective focuses on EPA’s commitment to strengthen the EPA’s External Civil Rights Office and its ability to enforce federal civil rights laws to their fullest extent, including by fully implementing its authority to conduct affirmative investigations in overburdened communities, issue policy guidance, and secure timely and effective resolutions to address discrimination.

Furthermore, this goal sets targets that align closely with Administration priorities set forth in Executive Orders (E.O.s) 13985: *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government* and 14008: *Tackling the Climate Crisis at Home and Abroad*. Both E.O.s require that EPA develop implementation plans to ensure that underserved communities and individuals have full, fair, and equitable access to the benefits of the Agency’s programs. The actions in these upcoming plans will be developed to help achieve those objectives. The E.O.s also provide the platform for interagency collaboration since many objectives benefit from actions by other federal agencies. EPA will take these and any other opportunities to use the Administration’s whole-of-government approach to implementing environmental justice.

the Climate Crisis. These regulations limit toxic air pollution from stationary sources, reducing pollution in communities and providing tools to help communities and other stakeholders meaningfully engage in the process. EPA will consider multipollutant impacts in the development and implementation of Maximum Achievable Control Technology standards and New Source Performance Standards, where appropriate. To address unacceptable risks that may remain after implementing national strategies, EPA works with air agencies to understand the risks at the local level, target problem areas, and tailor reduction strategies and approaches to the unique situations in those areas.

EPA will promote early integration of environmental justice considerations in the regulatory process. For example, the Agency will develop new and enhanced applications of environmental justice analytics to inform how power sector rules can mitigate impacts on overburdened communities. This effort will include modeling of power sector emissions down to the county level as well as improved representation of fine particulate matter that includes toxic heavy metals.

The Agency will continue to develop and make available the necessary technical data and tools to support air quality planning and environmental justice analyses. This includes critical information on emissions and ambient concentrations of air pollution, and associated data systems, such as AirNow, the Air Quality System, and the National Emissions Inventory. In addition, EPA will work with air agencies and, as appropriate, with other federal agencies to develop improved measurement methods (e.g., for woodsmoke, PM emissions, PFAS, and air toxics, such as ethylene oxide) and emissions data (e.g., for agricultural sources and for air toxics). To support air agencies, promote national consistency, and ensure information is publicly available, EPA will continue to operate, maintain, and upgrade as needed the State Planning Electronic Collaboration System (SPeCS), the Combined Air Emissions Reporting System (CAERS), and the Electronic Permit System (EPS). EPA will also test, evaluate, and refine draft tools for incorporating environmental justice considerations into EPA-issued permits and ensure opportunities for meaningful public involvement in the permit process.

EPA will work with air agencies and local communities to prioritize engagement with low-income and marginalized communities that for decades have been overburdened with air pollution and other environmental hazards. EPA will undertake air monitoring and other assessment approaches to address these long-neglected air quality and public health problems. The Agency will work to assess the current state of the nation's monitoring network and pursue collaborative approaches to modernize the technologies, equipment, and network design used to measure air quality as well as enhance the quality and security of critical data collection, handling, and reporting from the network.

EPA will collect and evaluate mobile source emission data to help guide future program priorities related to reducing criteria pollutant and greenhouse gas emissions from light-duty cars and trucks, heavy-duty trucks and buses, nonroad engines and equipment, and from the fuels that power these engines. The Agency will develop the next round of multi-pollutant emission standards for light-duty and highway heavy-duty vehicles, which will improve air quality and reduce pollution near roads and other areas of high truck activity, such as warehouses and ports. EPA will also continue to work to ensure that Clean Air Act requirements are met for new transportation projects with heavy-duty diesel traffic, such that they do not worsen air quality near communities with environmental justice concerns. The Agency will address air quality concerns in these communities through implementing regulations, developing improved air quality models and mitigation measures, and collaborating with a broad range

EPA estimates that there are 12,000 avoidable lung cancer deaths annually attributable to indoor radon exposure.⁵⁵ To reduce this high public health risk, EPA will co-lead the National Radon Action Plan (NRAP), a multisector public-private coalition committed to eliminating avoidable radon-induced lung cancer in the United States and addressing radon as a health equity challenge. It is estimated there are more than seven million homes in the U.S. at or above the EPA radon action level.⁵⁶ EPA will continue to provide State Indoor Radon Grant funding, and technical assistance to Tribes and states, with a focus on increasing access to testing and mitigation in underserved communities.

In-home asthma management is a critical component of asthma care, particularly in low-income populations. EPA, in partnership with the Centers for Disease Control and Prevention (CDC) and Department of Housing and Urban Development (HUD) through the Federal Asthma Disparities Action Plan,⁵⁷ is supporting state Medicaid programs and private health plans to pay for in-home asthma interventions through reimbursement mechanisms. In addition, EPA is working to reduce asthma disparities for low-income people and communities of color by supporting public health and housing organizations to train and deploy community health workers to deliver in-home asthma interventions and care.

EPA will continue to reduce indoor air quality risks in schools through the Indoor Air Quality Tools for Schools program, with a focus on technical assistance, training, assessments, and implementation support for in-need communities. EPA will expand technical assistance to advance best indoor air quality practices through ventilation improvements, operation and preventive maintenance, and appropriate sanitation in school and childcare buildings. EPA will also expand federal coordination and collaboration through the Federal Partners in School Health, a multi-agency collaboration led by the Department of Education, CDC, and EPA.

EPA will update the Indoor airPLUS new home construction specifications and expand the program to address indoor air quality (IAQ) protections during home renovations and upgrades. EPA will work with federal, state, and local weatherization and energy efficiency programs to incorporate IAQ protective practices through the Energy Savings Plus Health suite of guidances and tools. EPA will provide technical assistance and other support to Tribes through the Tribal Air Monitoring Support (TAMS) Center and tools to build local expertise and indoor air quality capacity among Tribal air quality professionals to help reduce exposure to harmful indoor air pollutants, including through radon testing and mitigation technologies.

EPA will review and update the Federal Radiation Protection Guidance, currently based on protecting an adult male, to include protection for all members of the U.S. population, with particular emphasis on the most vulnerable. These updates will address considerations for all ages, genders, and the increased sensitivity of pregnant individuals and children to radiation exposure. EPA will provide clear,

⁵⁵ National Research Council. 1999. Health Effects of Exposure to Radon: BEIR VI. Washington, DC: The National Academies Press. Report available for purchase at: <https://doi.org/10.17226/5499>.

⁵⁶ Overview of EPA's State Indoor Radon Grants Program: A Focus on Activities Conducted during 2019: https://www.epa.gov/sites/default/files/2021-03/documents/sirg_2019_annual_summary_report_final.revised.pdf.

⁵⁷ Coordinated Federal Action Plan to Reduce Racial and Ethnic Asthma Disparities: <https://www.epa.gov/asthma/coordinated-federal-action-plan-reduce-racial-and-ethnic-asthma-disparities>.

innovative program action; and using its authority to help protect the health of all people and the nation's waterbodies. EPA will ensure that science is respected, elevated, and prioritized in all decisions and is released to the public in a timely and transparent manner. EPA will also address a critical public health issue by working with states and water utilities to remove lead service lines that contribute to high lead levels in drinking water. EPA will help utilities identify their lead service lines and work with federal and state funding authorities to help utilities remove the lines.

EPA also will support water sector efforts to strengthen the workforce by providing assistance to state agencies and external stakeholders and promoting the importance of water operators, who are critical to providing safe drinking water. EPA will ensure that the water sector is aware of threats posed by cyber-attacks and will provide resources and assistance to states and systems so they understand how to prepare for, identify, respond to, and recover from cyber-attacks. Work under this objective will support the FY 2022-2023 Agency Priority Goal to clean up contaminated sites and invest in water infrastructure to enhance the livability and economic vitality of overburdened and underserved communities. Under this Agency Priority Goal, EPA plans to engage with communities that are overburdened and underserved to provide technical assistance supporting community-identified needs addressing water and clean-up challenges.

Many water systems and communities are facing challenges with lead and PFAS. Some communities do not know where their lead service lines are located. Many system operators and communities are not familiar with emerging contaminants like PFAS with respect to decisions, for example, about the best treatment solutions or remediation options. EPA will work with states to identify and prioritize infrastructure projects supported by the BIL and in alignment with Justice40 to replace lead service lines and address PFAS contamination, particularly in small and underserved communities.

EPA is taking multiple actions to reduce drinking water lead exposure in underserved communities that have been disproportionately impacted by this public health crisis. In 2021, EPA completed the review of the Lead and Copper Rule Revision under Executive Order 13990 and announced the development of a new regulation, Lead and Copper Rule Improvements (LCRI), to better protect communities from exposure to lead in drinking water. EPA is working with partners to test for lead in the drinking water of schools and childcare facilities and to provide resources for remediation. EPA is completing guidance documents to assist communities in identifying lead service lines, the most significant sources of lead in drinking water, to prioritize their replacement. EPA will provide training and technical assistance to drinking water service providers to protect children and households in impacted communities and will help providers improve outreach to drinking water consumers to take actions to reduce their lead exposure.

PFAS contamination is another urgent public health and environmental threat facing communities across the United States, with significant potential equity and environmental justice implications. EPA created a cross-agency Council on PFAS, staffed by senior policy and technical experts, to coordinate and accelerate a whole-of-agency response to this crisis and leverage partnerships with other federal agencies. The Council developed the PFAS Strategic Roadmap⁶⁴ – laying out a whole-of-agency approach that maximizes the use of existing authorities and scientific capacity to research, restrict, and remediate PFAS. The roadmap sets timelines by which EPA plans to take specific actions and commits to bolder new policies to safeguard public health, protect the environment, and hold polluters accountable. As described in the Roadmap, EPA will publish a proposed PFAS National Primary Drinking Water Regulation. EPA will also begin PFAS monitoring under the Unregulated Contaminant Monitoring Rule and conduct occurrence analyses in FY 2023 through 2025. In addition, EPA has determined that

⁶⁴ For additional information, see: <https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024>.

Another challenge is the capacity limitations of states that are facing heavy demands on annual budgets because tax revenues and system revenues are down due to the COVID-19 pandemic and other reasons. EPA continues to work with states regarding this issue and explore sources of matching funds and other potential resource options.

In addition, the potential scaling up of carbon capture to remove CO₂ from the atmosphere and safely sequester it underground may pose new scientific, technological, and permitting capacity challenges to EPA and its regulatory partners.

To help address these challenges, the Agency has established the Water Workforce Initiative, collaborating with partners to work with stakeholders across the water sector to ensure that the sector workforce is strong, diverse, resilient, and attracts and retains talented individuals from many different backgrounds. EPA's Critical Infrastructure Protection program provides water utilities access to information, tools, training, and protocols designed to enhance the security (including cybersecurity), preparedness, and resiliency from terrorist threats and all-hazard events.

The frequency and potential severity of cyber-attacks against critical water infrastructure continues to grow. EPA, states, and sector partners have offered guidance, training, and technical assistance to promote the voluntary adoption of cybersecurity best practices; however, water utilities continue to be highly vulnerable to cyber-attacks. The risk to the environment and public health from cyber-attacks and the limited adoption of cybersecurity practices within the water sector gives urgency to federal-state engagement on improving the operational security of public water systems and publicly owned treatment works.

EPA also is assisting the water sector in developing a clear understanding of climate change impacts on utilities and water supplies, and potential long-term adaptation and risk management options for decision making related to water utility infrastructure. EPA also will work to facilitate compliance with updated Federal Flood Risk Management Standards for critical infrastructure, which includes many water systems.

- Review and update regulations, such as:
 - Work with the Department of the Army to revise the definition of “waters of the United States”. This process anticipates completing and implementing two rulemakings: a foundational rule to restore longstanding protections, and an anticipated second rule that builds on that regulatory foundation.
 - Reconsider and revise the 2020 CWA Section 401 Certification Rule, which provides states and authorized Tribes an important tool to help protect the water quality of federally regulated waters within their borders.
 - Produce effluent limitation guidelines for chemical manufacturers and metal finishing companies to address PFAS, for steam electric power generators to address toxics and other pollutants, and for meat and poultry products to address nutrient discharges.
 - Evaluate state-specific rules that arise based on an EPA review of changes to state Water Quality Standards (WQS).
 - Review rules related to improving CWA protections on Tribal reservations and considering Tribal treaty rights when acting on state WQS that impact those rights.
- Augment water supplies by safe reuse practices and stormwater capture to recharge aquifers.
- Develop climate-related tools and technical assistance and support green infrastructure and nature-based solutions to protect and improve water quality and habitat, while also providing climate mitigation and adaptation benefits.
- Identify impaired waters.
- Develop water quality plans to restore and protect waters and wetlands, including total maximum daily loads (TMDLs) and protection approaches.
- Update WQS.
- Establish pollution reduction targets.
- Issue and enforce discharge and ocean disposal permits.
- Implement coastal and estuarine programs to reduce coastal wetland loss, adapt to sea level rise, protect coral reefs, and address other coastal hazards.
- Implement programs to prevent or reduce nonpoint source pollution, including nutrients and plastic pollution.
- Use geographic partnership programs to implement consensus-based actions that address critical issues such as climate resiliency and water equity in watersheds and communities.

EPA understands that the benefits of clean, safe water are not shared equally by all communities and ecosystems. Moving forward, EPA will work with its partners to protect and restore water quality and wetlands, especially in low-income and underserved communities. To address water quality challenges, EPA will apply the fundamental building blocks of the CWA, including the development and implementation of TMDLs for CWA Section 303(d) listed impaired waterbodies, development of technology-based and water-quality based standards, and the implementation of permit programs such as the National Pollutant Discharge Elimination System and Marine Protection, Research, and Sanctuaries Act programs. Another approach could include taking full advantage of the flexibilities in the CWSRF programs to help achieve broader watershed protection and restoration. Partnership, science, technology, and innovation will be key to EPA’s efforts to reduce and control pollutants that

are discharged from industrial, municipal, agricultural, and stormwater sources, as well as to implement programs to prevent and reduce pollution that washes off the land during rain events, including nutrients and plastic pollution.

The Agency will improve the way existing initiatives are used to create and protect healthy watershed tools, explore how innovative tools can be applied, and enhance efforts and cross-media collaboration to protect and prevent water quality impairment in healthy watersheds. The Agency will use data collected, for example, under the National Aquatic Resource Survey, to track the effectiveness of these combined efforts at protecting and improving water quality over time. In addition, EPA will work with government and non-governmental partners to bring appropriate and effective solutions to small, rural, and underserved communities.

The Agency will continue to develop new and revised CWA national recommended water quality criteria for the protection of human health and aquatic life that Tribes, states, and territories may adopt into water quality standards for their waterbodies. Water quality criteria consider the health protection for susceptible populations and lifestages (e.g., pregnant individuals, children) but can be limited by data availability. EPA also is reviewing the water quality criteria methodology to further advance the health protection of communities and individuals who are disproportionately impacted by high pollution levels or susceptibilities (e.g., Tribes, underserved and overburdened communities, pregnant individuals, children). EPA is developing the necessary tools and obtaining data needed to conduct efficient, standardized human health risk assessments for PFAS and other chemicals found in biosolids. EPA is also fully committed to implementing programs that protect Tribal water resources—EPA will revise WQSs regulations to explicitly and sustainably protect Tribal reserved (e.g., treaty) rights in state waters.

EPA will continue to promote multi-benefit solutions, such as integrated planning for wastewater and stormwater management, to achieve water quality goals while considering community needs and priorities. Robust stakeholder engagement and collaboration across state and local government can lead to effective long-range plans that implement green infrastructure, nature-based solutions, and more resilient infrastructure that is less vulnerable to flooding and the effects of the changing climate. To respond and adapt to the current and potential impacts of climate change on aquatic resources, EPA has developed working relationships with partners across the country. Through planning tools, technical resources, and funding programs, EPA will promote adaptive solutions to meet the challenges communities face.

EPA and its partners will accelerate progress to protect and restore ecologically, economically,⁶⁷ and intrinsically valuable watersheds across the nation through its place-based and geographic programs such as the National Estuary Program and the Urban Waters Federal Partnership, by strategically focusing on the biggest threats to their ecosystems and associated human health issues. Using a collaborative watershed approach, these programs incorporate in their environmental protection work the principles of environmental justice and Tribal treaty rights and sovereignty. EPA's leadership, at the

⁶⁷ The economic value of coastal recreation in the United States – for beach going, angling, bird watching, and snorkeling/diving – has been estimated by the National Oceanic and Atmospheric Administration to be in the order of \$20 billion to \$60 billion annually.

respond to the risks to human health and the environment due to coastal hazards and climate change. EPA also will engage in both domestic and international partnerships to support trash pollution prevention programs, recycling efforts in rural and suburban communities, and waterfront revitalization. Research into the sources, fates, and effects of microplastics continues to be a priority and EPA participates on the Interagency Marine Debris Coordinating Committee, which plans for how federal agencies, in partnership with other stakeholders, can best pursue opportunities to reduce microfiber pollution substantially during the five-year period following the enactment of the Save Our Seas Act. The Agency also will help states and local communities address PFAS. EPA is pursuing a number of activities related to PFAS in ambient water, including development of national recommended water quality criteria, biosolids risk assessment, fish tissue monitoring, analytical method development, and a multi-industry wastewater study examining available information about PFAS use and discharge across several industries.

emergencies through planning and preparedness efforts. EPA follows the government-wide National Response Framework (NRF)⁶⁸ in responding to large-scale emergencies that involve chemicals, oil, biological agents, radiation, or natural disasters. As part of the framework, EPA supports other federal agencies on significant incidents, and works with Tribes, states, and local planning and response organizations. Due to their proximity to facilities, fence-line communities, often with environmental justice concerns, bear a disproportionate risk of exposure to releases. Over the next four years, EPA will work to find solutions for these disproportionately impacted communities by prioritizing inspection of high-risk facilities.

⁶⁸ For more information about the National Response Framework, see: <https://www.epa.gov/emergency-response/national-response-framework-nrf>.

and more catastrophic releases. This would strain state resources to ensure appropriate oversight as well as negatively impacting available resources for cleanup.

New scientific information, including new toxicity information or a new analytical method, can call previous determinations into question. For example, the discovery of new pathways, such as vapor intrusion, and emerging contaminants make remediating contaminated sites more challenging.

State programs are likely to encounter resource challenges and have less money to support cleanup efforts as states experience declines in gas tax revenues associated with the emergence of electric vehicles and a downward trend in the amount of gasoline sold annually. Possible impacts of economic transition to electric vehicles, including battery recycling and legacies of petroleum-era infrastructure, pose challenges. Lead battery recycling facilities are a common type of cleanup the Superfund removal program conducts and, if recycling of lithium becomes a valuable economic venture in the future with minimal oversight, the pattern would likely repeat.

Objective 6.2: Reduce Waste and Prevent Environmental Contamination

Prevent environmental pollution by preventing releases, reducing waste, increasing materials recovery and recycling, and ensuring sustainable materials management practices.

Introduction

To prevent future environmental contamination and protect the health of the approximately 5.3 million people living within one mile of a hazardous waste facility, EPA and its state partners issue RCRA permits for approximately 6,700 hazardous waste units (such as incinerators and landfills) at 1,300 facilities. EPA will ensure that permit decisions, including decisions to issue, renew, or deny permits, reflect the latest technology and standards, and remain protective under changing conditions, such as climate change. EPA will also ensure that all communities, including those who are marginalized and overburdened, have an equitable opportunity to engage in the permitting process.

Through its National Recycling Strategy,⁷⁷ EPA is working to develop a stronger, more resilient, and cost-effective U.S. municipal solid waste recycling system. Recycling has been a long-standing critical component of EPA's waste management efforts and is the foundation for Sustainable Materials Management, which aims to reduce the environmental impacts of materials across their lifecycle. Recycling is an important part of a circular economy, which refers to a system of activities that is restorative to the environment, enables resources to maintain their highest values, and designs out waste. A circular economy approach provides direct, measurable reductions in GHG emissions as natural resource extraction and processing make up approximately 50 percent of total global GHG emissions. Reducing waste helps alleviate burdens on populations that bear the brunt of poorly run waste management facilities and transfer stations and underinvestment in waste management infrastructure. When applied to critical minerals, a circular economy approach facilitates end-of-life recycling and the recovery of critical minerals in order to support a secure supply chain.

To protect groundwater sources from releases of petroleum from USTs, EPA will continue to work with Tribal and state partners to prevent these releases. This work will help mitigate the negative environmental impacts to communities that are historically underserved, marginalized, and adversely affected by persistent poverty and inequality. As of September 2020, approximately 53 million people live within one-quarter mile of an active UST facility, and they tend to be minority populations and have lower income than the average U.S. wage earner.⁷⁸

Long-Term Performance Goal

- By September 30, 2026, increase the percentage of updated permits at RCRA facilities to 80% from the FY 2021 baseline of 72.7%.

⁷⁷ For more information on the National Recycling Strategy, see: <https://www.epa.gov/system/files/documents/2021-11/final-national-recycling-strategy.pdf>.

⁷⁸ U.S. EPA, Office of Land and Emergency Management 2021. Data collected includes: (1) LUST information as of late-2018 to mid-2019, from the Office of Research and Development and Office of Underground Storage Tanks UST Finder, <https://gispub.epa.gov/ustfinder>; and (2) population data from the 2015-2019 American Community Survey.

Strategies

EPA will update the RCRA solid and hazardous waste regulations, as necessary, to ensure protective standards for managing solid and hazardous waste. From 2016 to 2019, EPA issued and implemented regulatory improvements for hazardous waste generators, recyclers, and for pharmaceutical waste. These revisions affect tens of thousands of manufacturers and businesses that generate, recycle, and otherwise manage solid and hazardous waste. EPA will continue to develop outreach and guidance to help stakeholders implement these protective requirements while encouraging resource conservation.

In implementing regulations for coal combustion residuals, EPA is taking action to ensure that the concerns of nearby communities are addressed in a protective manner. EPA is emphasizing proper monitoring of groundwater, protective closure, and corrective actions to address contamination. Furthermore, as authorized in the Water Infrastructure Improvements for the Nation Act of 2016,⁷⁹ EPA will continue to work to approve state permit programs for coal ash disposal as well as a federal coal ash permit program.

EPA has set goals through 2030 for recycling and reducing food waste as well as decreasing lifecycle environmental impacts of materials. EPA will collaborate with federal, Tribal, state, and local organizations, and other stakeholders to develop additional strategies for food waste and the built environment. EPA will administer grant programs to improve Tribal, state, and local solid waste management programs and infrastructure and education and outreach on waste prevention. EPA also will address land-based contributions to the mismanagement of post-consumer materials and plastic waste.

In order to support the Administration's efforts to secure supply chains for critical minerals, EPA will work with public and private sector partners on strategies to increase the circularity and recycling of products, such as batteries, that contain critical minerals as well as the recovery of critical minerals from mining waste.

To reduce risk posed by USTs located at nearly 200,000 facilities throughout the country, EPA and state partners will work to ensure that every UST system is inspected at least once every three years, as required by statute.⁸⁰ EPA is working to ensure biofuels and other emerging fuels are stored in compatible UST systems. In addition, EPA will implement these UST regulations in Indian country in partnership with the Tribes. EPA will focus on supporting all aspects of the Tribal prevention programs, including the development of inspection and compliance assistance capacity. EPA will provide facility-specific compliance assistance for UST facility owners and operators in communities with environmental justice concerns in Indian country. EPA will work to integrate environmental justice into release prevention prioritization and decision making, ensuring the most vulnerable communities are protected from further environmental harm.

⁷⁹ For more information about the Water Infrastructure Improvements for the Nation Act (WIIN Act), see: <https://www.epa.gov/coalash/permit-programs-coal-combustion-residual-disposal-units>.

⁸⁰ For information about the Energy Policy Act of 2005, see: <https://www.epa.gov/ust/energy-policy-act-2005-and-underground-storage-tanks-usts>.

External Factors and Emerging Issues

The potential impacts of a changing climate, including extreme weather events such as tornadoes, fires, and hurricanes on hazardous waste and UST facilities across the nation will affect EPA's work. Also, new waste streams continue to emerge as technology advances and new products are designed and manufactured. The general trend away from landfills and toward the recycling of materials using new technologies will require further evaluation. In addition, the impacts of an aging UST infrastructure could lead to increased difficulty in preventing more frequent and more catastrophic releases. This would strain state resources for release prevention activities such as inspections because of the enhanced need to focus on riskier sites. The potential incompatibility of emerging fuels (such as E15 and higher blends of ethanol) stored with existing tanks and equipment, or increased corrosion in diesel fuel UST systems, also could create challenges to preventing releases.

Objective 6.3: Prepare for and Respond to Environmental Emergencies

Prevent, prepare, and respond to environmental emergencies and support other agencies on nationally significant incidents, working with Tribes, states, and local planning and response organizations.

Introduction

Environmental emergencies are caused by both natural and anthropogenic effects. Those emergencies caused by natural forces are growing in frequency and in the risks they pose. EPA will strive to prevent such emergencies and be ready to respond when they occur, in coordination with and through the support of partner organizations. EPA's leadership for national preparedness for emergency responses is designated as a Primary Mission Essential Function. Agency coordination with Tribes, states, local communities, and industry helps to ensure national safety and security during responses.

EPA will continue to develop and implement regulations and policies that aim to prevent environmental emergencies and enhance the ability of communities and facilities to prepare for and respond to emergencies. EPA's highly trained corps of on-scene coordinators and special teams will prepare for the possibility of significant incidents by maintaining and providing guidance and technical assistance to Tribal, state, and local planning and response organizations to strengthen their preparedness.

Long-Term Performance Goal

- By September 30, 2026, ensure that 40% of annual emergency response and removal exercises that EPA conducts or participates in incorporate environmental justice.

Strategies

During an incident, EPA plays a central role in working to prevent, mitigate, or contain the release of chemical, oil, radiological, biological, or hazardous substances. The Agency will coordinate with Tribes, states, local communities, and industry to help ensure national safety and security during responses.

To strengthen its prevention and readiness framework for responding to environmental emergencies (including from climate and extreme weather), EPA will develop and update regulations under its statutory authorities, establish policies, and develop supporting capabilities and information. EPA also will coordinate with and provide technical assistance and training to support federal, Tribal, state, and local partner organizations to better prepare for and respond to environmental emergencies and ensure communities have access to chemical safety information. EPA will continue to operate RadNet, the Agency's national environmental radiation monitoring system, providing officials with access to data and improving their ability to make decisions during and after a radiological incident. The Agency also will maintain a robust physical and information security and preparedness infrastructure, ensuring that its numerous facilities and information systems are secured and protected in line with federal requirements.

Exercises are a key component of EPA's preparedness – they provide an opportunity to plan and assess capabilities needed to accomplish EPA's prevention and readiness objectives and address areas for

improvement. Results of these exercises identify strengths and areas for improvement that enhance the Agency's emergency response capabilities. Unannounced preparedness exercises at facilities subject to EPA's Facility Response Plan (FRP) requirements are an essential compliance monitoring activity performed by EPA Regions. For example, these field exercises help assess whether a facility is prepared to respond to a discharge of oil. As part of these exercises, EPA recognizes the importance of reflecting the needs and interests of communities with environmental justice concerns.

The Agency will continue to deploy its assets to support emergency response. The Portable High-throughput Integrated Laboratory Identification System (PHILIS) mobile laboratory asset provides on-site analysis of chemical warfare agents and environmental samples contaminated with toxic industrial compounds. This resource is part of EPA's Environmental Response Laboratory Network and will be pre-deployed in anticipation of incidents or deployed anywhere in the U.S. after an incident. The Airborne Spectral Photometric Environmental Collection Technology (ASPECT) is the nation's only airborne real-time chemical and radiological detection, infrared, and photographic imagery platform. EPA will use ASPECT to assist local, national, and international agencies with hazardous substance responses, radiological incidents, and situational awareness.

EPA's chemical safety and oil programs will prioritize inspection activities at high-risk facilities to protect communities, including those with environmental justice concerns. EPA will review the programs to determine if risks posed by climate change warrant modifications to the programs.

EPA homeland security research fills critical scientific and technological gaps that enhance the Agency's ability to carry out its national preparedness and emergency response and recovery obligations and inform disaster response and guidance. EPA will develop tools, methods, and data needed to implement environmental statutes effectively and support federal, Tribal, state, and local emergency responders in characterizing chemical, oil, biological, or radiological contamination; assessing exposure and risks to human health and the environment; cleaning up impacted areas; and improving community resilience. EPA also will consider regulatory modifications under Clean Air Act Section 112(r) to help prevent serious industrial chemical accidents, mitigate those that occur, and provide communities with better access to information about industrial chemical hazards.

External Factors and Emerging Issues

The risks posed by climate change are growing, with previously unforeseen risks developing and worsening, increasing the need for emergency response efforts. Chemical and oil facilities can be vulnerable to rising seas, wildfires, high heat, flooding, and other events that can endanger these facilities and result in, or worsen, an incident.

As infrastructure becomes more tightly coupled and dependent on remotely accessed or internet-connected data acquisition and control technologies, the threat of cyber terrorism will increase the potential for oil and chemical releases. EPA will need to continue to work with federal, Tribal, state, and local agency partners to prepare for and respond to this threat.

Goal 7: Ensure Safety of Chemicals for People and the Environment

Increase the safety of chemicals and pesticides and prevent pollution at the source.

Introduction

EPA is responsible for ensuring the safety of chemicals and pesticides for people at all life stages and the environment, improving access to information, and preventing pollution at the source before it occurs. The Agency focuses on assessing, preventing, and reducing releases and exposures resulting from the manufacture, processing, use and disposal of chemicals and pesticides, and advancing community right-to-know. Through risk evaluation/assessment and management, encouragement of safer alternatives, and effective data management, EPA strives to ensure protection of communities and the environment from unsafe exposures, especially to children, the elderly, and those with environmental justice concerns (including low income, people of color, and Indigenous peoples) who may already be disproportionately impacted by and at risk from exposure to other stressors. In addition, EPA works to ensure public access to chemical and pesticide data, analytical tools, and other sources of information and expertise; and promotes source reduction, integrated pest management, and other pollution prevention strategies by organizations and businesses.

Objective 7.1: Ensure Chemical and Pesticide Safety

Protect the health of families, communities, and ecosystems from the risks posed by chemicals and pesticides.

Introduction

Chemicals are ubiquitous in the products Americans use daily and are present in the environment and people's bodies. EPA has significant responsibilities under the Toxic Substances Control Act (TSCA) for ensuring the safety of chemicals in or entering commerce and addressing unreasonable risks to human health and the environment. This work will play an important role in enhancing environmental justice and tackling the climate crisis as described in Executive Orders 13985: *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government* and 14008: *Tackling the Climate Crisis at Home and Abroad*. Also, under TSCA, EPA is responsible for collecting and managing vast amounts of chemical data/information, securely managing Confidential Business Information, and reducing exposure to lead in paint and dust, especially in disproportionately affected communities.

The Frank R. Lautenberg Chemical Safety for the 21st Century Act, which amended TSCA in 2016, introduced far-reaching improvements to America's chemical safety scientific, regulatory, and information infrastructure and enhanced EPA's ability to protect human health and the environment from chemical risks. Under Section 5,⁸¹ EPA assumed responsibility for making safety determinations in its review of hundreds of new chemical submissions annually. Under Section 6,⁸² EPA assumed new responsibilities for systematically prioritizing and comprehensively evaluating at least 20 chemicals at a time, assessing additional chemicals at manufacturers' request, and managing identified unreasonable risks—all under statutory deadlines.

Under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Food, Drug, and Cosmetic Act (FFDCA), as amended by the Food Quality Protection Act of 1996 (FQPA), and the Pesticide Registration Improvement Extension Act of 2018 (PRIA 4), EPA is charged with protecting people and the environment from the risks that pesticide use can pose. EPA reviews and makes determinations on whether to register new pesticides and new uses for existing pesticides and other registration requests in accordance with statutory requirements. EPA also makes sure exposure to subgroups and sensitive life stages, including infants and children, are reflected in the human health risk assessments supporting these regulatory determinations and that pesticides do not pose unreasonable adverse effects to the environment. In addition, under the registration review process the Agency reevaluates pesticides that are already in the market against current scientific standards for human health and the environment. Under the Endangered Species Act (ESA),⁸³ EPA is charged with ensuring that pesticide registration and registration review decisions do not jeopardize the continued existence of federally-listed threatened and endangered species or adversely modify designated critical habitat.

⁸¹ Actions under TSCA Section 5: <https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/actions-under-tsca-section-5>.

⁸² Regulation of Chemicals under Section 6(a) of the Toxic Substances Control Act: <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/regulation-chemicals-under-section-6a-toxic-substances>.

⁸³ Summary of the Endangered Species Act: <https://www.epa.gov/laws-regulations/summary-endangered-species-act>.

Long-Term Performance Goals

- By September 30, 2026, complete at least eight High Priority Substance (HPS) TSCA risk evaluations annually within statutory timelines compared to the FY 2020 baseline of one.
- By September 30, 2026, initiate all TSCA risk management actions within 45 days of the completion of a final existing chemical risk evaluation.
- By September 30, 2026, review 90% of past risk mitigation requirements for TSCA new chemical substances decisions compared to the FY 2021 baseline of none.
- By September 30, 2026, recertify before the expiration date 36% of lead-based paint Renovation, Repair, and Painting (RRP) firms whose certifications are scheduled to expire compared to the FY 2021 baseline of 32%.
- By September 30, 2026, complete 78 pesticide registration review cases with statutory due dates that fall after October 1, 2022.
- By September 30, 2026, consider the effects determinations or protections of federally threatened and endangered species for new active ingredients in 90% of the risk assessments supporting pesticide registration decisions for new active ingredients compared to the FY 2020 baseline of 50%.
- By September 30, 2026, consider the effects determinations or protections of federally threatened and endangered species in 50% of the risk assessments supporting pesticide registration review decisions compared to the FY 2020 baseline of 27%.
- By September 30, 2026, support Agricultural Worker Protection Standard (WPS) pesticide safety training for 20,000 farmworkers annually compared to the FY 2018-2020 annual average baseline of 11,000.

Strategies

Over the next four years, EPA will focus on meeting statutory requirements and mandatory deadlines for ensuring that its chemical reviews are efficient, effective, and transparent to EPA's stakeholders. EPA will ensure that decisions stemming from chemical reviews are transparent, use methods and tools based on the weight of scientific evidence, are consistent with the best available scientific information, and are reasonable and consistent with the intended use of the information.

EPA is responsible for reviewing all new chemical submissions before they enter commerce to determine whether the chemicals may pose unreasonable risks to human health or the environment. EPA will conduct risk assessments for more than 500 new chemical notice and exemption submissions annually and make affirmative determinations on whether unreasonable risks are posed under those chemicals' conditions of use. This involves managing identified risks, publishing Significant New Use Rules, and requiring development of additional data when information is insufficient to conduct a reasoned evaluation.

EPA will continue to ensure that the public has access to as much chemical safety information as allowed by law to increase transparency and support stakeholder engagement in the agency's activities on chemical risks. EPA also will continue to reduce exposures to lead in paint by establishing

standards for inspection, risk assessment, and abatement of lead-based paint hazards, along with training and certification programs, among other efforts.

Consistent with its statutory responsibilities,^{84 85 86} EPA will continue to review and register new pesticides and new uses for existing pesticides, and other covered applications under PRIA and act on other registration requests in accordance with FIFRA and FFDCFA standards. Many of these registration actions will be for reduced-risk conventional pesticides and biopesticides, which, once registered and used by consumers, will increase benefits to society, including infants and children, and reduce ecological impacts. Additionally, EPA will continue to reevaluate existing pesticides in the marketplace every 15 years to ensure the FIFRA standard for registration continues to be met based on current science. Working together with the affected communities, through integrated pest management (IPM) activities, the Agency plans to accelerate the adoption of lower-risk products.

The Pesticide Environmental Stewardship Program (PESP)⁸⁷ is an EPA partnership program that works with the nation's pesticide-user community to promote IPM practices. Resources are focused on funding projects that reduce the impacts of pesticide use in agricultural settings, including reduced use of pesticides. Selected projects could address pesticide use in rural areas or in Indian country, promoting IPM practices that benefit these communities.

The Agency will partner in the development of training, outreach, tools, and informational brochures to promote IPM efforts and provide guidance to schools, farmers, other partners, and stakeholders. Millions of America's workers are exposed to pesticides in occupations such as agriculture, lawn care, food preparation, and landscape maintenance. The *Agricultural Worker Protection Standard (WPS)*⁸⁸ and the *Certification of Pesticide Applicators (CPA)*⁸⁹ revised rules (finalized in FY 2015 and FY 2017, respectively) are key elements of EPA's strategy for reducing occupational exposure to pesticides. EPA will continue to support the implementation of the regulations through education and outreach, guidance development, and grant programs. Efforts to implement the WPS include addressing environmental justice issues in rural communities, especially for farmworkers and their families.

Under the ESA,⁹⁰ EPA is responsible for ensuring that pesticide regulatory decisions will not destroy or adversely modify designated critical habitat or jeopardize the continued existence of species listed as threatened or endangered by the U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS). EPA will assess in its FIFRA registration and registration review regulatory determinations whether listed endangered or threatened species or their designated critical habitat

⁸⁴ Summary of Federal Insecticide, Fungicide, and Rodenticide Act: <https://www.epa.gov/laws-regulations/summary-federal-insecticide-fungicide-and-rodenticide-act>.

⁸⁵ Summary of the Federal Food, Drug, and Cosmetic Act: <https://www.epa.gov/laws-regulations/summary-federal-food-drug-and-cosmetic-act>.

⁸⁶ Pesticide Registration Improvement Extension Act of 2018 (PRIA 4): <https://www.epa.gov/pria-fees>.

⁸⁷ Pesticide Environmental Stewardship Program: <https://www.epa.gov/pesp>.

⁸⁸ Agricultural Worker Protection Standard: <https://www.epa.gov/pesticide-worker-safety/agricultural-worker-protection-standard-wps>.

⁸⁹ Revised Certification Standards for Pesticide Applicators: <https://www.epa.gov/pesticide-worker-safety/revised-certification-standards-pesticide-applicators>.

⁹⁰ For additional information on the Endangered Species Protection Program, see: <https://www.epa.gov/endangered-species/about-endangered-species-protection-program>.

may be affected. Where risks are identified in a biological evaluation, EPA will work with the Services through a consultation⁹¹ process to ensure these new or existing pesticide registrations also will meet the ESA standard.⁹² EPA will also continue to develop processes to protect listed species earlier in the regulatory and consultation processes and pursue other major improvements to its ESA compliance work in coordination with the Services.

External Factors and Emerging Issues

Advances in science and technology are continually expanding the range and nature of chemicals submitted for EPA review, which demands that the Agency keep pace with scientific knowledge and technological capabilities. As an example, the program has received submissions for new chemicals used in nanotechnology, batteries, and semiconductors. Likewise, new understandings of chemical exposures and risks can require EPA to reprioritize activities to protect human health and the environment. Chemical safety programs may be affected by changing levels of economic activity, as exemplified by the impacts of housing market fluctuations on lead renovation, repair, and painting work.

The impacts of climate change and subsequent alteration of ecosystems likely will change where crops are grown and result in more pests and diseases in many areas. This is expected to pose growing workload demands, including increases in ecological risk assessments to support new pesticide and registration review decisions that evaluate potential endangered species impacts.

In addition, there is great value in tracking occupational pesticide exposure incidents but there are limitations to existing systems in providing national trends. In the future and as resources allow, EPA will strive to improve its ability to track trends using available pesticide incidence data sources (e.g., NIOSH SENSOR-Pesticides data).

⁹¹ For additional information, see: <https://www.epa.gov/endangered-species/assessing-pesticides-under-endangered-species-act>.

⁹² For additional information on how EPA protects endangered species from pesticides, see: <https://www.epa.gov/endangered-species>.

Objective 7.2: Promote Pollution Prevention

Encourage the adoption of pollution prevention and other stewardship practices that conserve natural resources, mitigate climate change, and promote environmental sustainability.

Introduction

EPA's implementation of pollution prevention (P2) practices under the Pollution Prevention Act of 1990⁹³ is one of the Agency's primary tools for advancing environmental stewardship and sustainability by federal, Tribal, and state governments, businesses, communities, and individuals. These practices focus on reducing the amount of any hazardous substance, pollutant, or contaminant entering a waste stream or released into the environment prior to recycling of discarded material, treatment, or disposal, as well as conserving the use of natural resources. P2 grants contributed to the elimination of 16.9 million metric tons of greenhouse gases (GHGs) between 2011 and 2019.

Through these approaches, the Agency helps business, consumers, procurement officials, organizations, and others reduce costs and access market opportunities while achieving significant reductions in hazardous releases to air, water, and land; hazardous materials use; GHG generation; and water use. EPA's Toxics Release Inventory (TRI)⁹⁴ tracks implementation of pollution prevention activities by reporting releases from facilities and serves as a critical source of public chemical release, management, and P2 information to support community-right-to-know and advance EPA's chemical safety goals.

Long-Term Performance Goals

- By September 30, 2026, reduce a total of 6 million metric tons of carbon dioxide equivalent (MMTCO_{2e}) released attributed to EPA pollution prevention grants.
- By September 30, 2026, EPA's Safer Choice program will certify a total of 2,300 products compared to the FY 2021 baseline of 1,950 total certified products.

Strategies

EPA will focus on carrying out sector-focused P2 National Emphasis Areas⁹⁵ and enabling the replication and leveraging of business successes. This work will be supported by the annual funding for administering P2 grants provided through 2026 by the Bipartisan Infrastructure Law, implemented in alignment with Justice40. The Agency will customize, develop, and deliver training to identify and deploy source reduction and engineering solutions to companies, consumers, and communities. EPA also will implement training and outreach for disproportionately affected communities, as well as Tribal, state, and local governments, to help with product and service procurement choices that are environmentally sound and promote human and environmental health.

EPA plans to update and strengthen the standards of the Safer Choice (SC) program,⁹⁶ which advances chemical safety by increasing the availability and identification of products containing ingredients that meet stringent health and environmental criteria, through a notice and comment process after

⁹³ Summary of the Pollution Prevention Act: <https://www.epa.gov/laws-regulations/summary-pollution-prevention-act>.

⁹⁴ Toxics Release Inventory Program: <https://www.epa.gov/toxics-release-inventory-tri-program>.

⁹⁵ P2 National Emphasis Areas: <https://www.epa.gov/p2/p2-national-emphasis-areas-neas>.

⁹⁶ For additional information on Safer Choice, see: <https://www.epa.gov/saferchoice>.

consultation with stakeholders. The Agency will conduct outreach with federal, Tribal, state, and local government procurement officials, and institutional and industrial purchasers, to communicate the benefits of SC and other environmentally preferable products, and work to make SC-certified products more widely available to people of color and low-income communities. EPA will offer technical assistance to businesses to help custodial staff and house cleaning companies gain access to protections from occupational exposure-related conditions (e.g., asthma) and to SC-certified products. EPA also will update the Safer Chemical Ingredients List to enhance transparency and facilitate expansion of safer chemical choices and products, including increasing the number and volume of SC-certified products.⁹⁷

EPA will work to expand its recommendations for addressing product categories with positive climate change impacts in support of E.O. 14008, which directs federal agencies to align management of federal procurement in support of climate action. EPA will implement the Framework for the Assessment of Environmental Performance Standards and Ecolabels to provide a transparent, fair, and consistent approach to evaluating the environmental sustainability of product standards and ecolabels for federal purchasing. EPA also will contribute to the development of sustainability standards associated with critical minerals.

EPA will continue to facilitate market adoption and penetration of new commercially successful chemistries and technologies through the Green Chemistry Challenge Awards, which raise the profile and credibility of innovative green and sustainable chemistry technologies. This initiative has resulted in awards to 123 technologies from more than 1,800 nominations over the last 25 years. Winning technologies are estimated to eliminate 7.8 billion pounds of carbon dioxide equivalents released to air each year, which is equivalent to taking 770,000 cars off the road.

The TRI program has provided data to support partnerships between community groups and companies that resulted in decreased air emissions.⁹⁸ EPA will continue research on tools that can quickly and accurately identify vulnerable communities near TRI facilities, which would support prioritization of P2. EPA will continue to publish the TRI and use analyses of toxic chemical releases from industrial facilities located near overburdened and disproportionately affected communities to identify and develop sector-specific P2 case studies, best practices, outreach, and training. This will help facilitate adoption of P2 practices in the facilities and in the communities themselves.

External Factors and Emerging Issues

Interest and participation in P2 activities can be driven by economic conditions, the regulatory climate, and public pressure for industry to adopt P2 solutions such as safer alternatives to chemicals and products currently in the marketplace. The program will continue to engage with public and private sector stakeholders to facilitate adoption — and showcase accomplishments — of green chemistry advances, explore opportunities to further integrate green chemistry into federal procurement through product standards/specifications/ecolabels, and provide leadership on green chemistry across federal agencies.

⁹⁷ Safer Chemical Ingredients List: <https://www.epa.gov/saferchoice/safer-ingredients>.

⁹⁸ TRI for Communities: <https://www.epa.gov/toxics-release-inventory-tri-program/tri-for-communities>.

Cross-Agency Strategies

Strategy 1: Ensure Scientific Integrity and Science-Based Decision Making

Strategy 2: Consider the Health of Children at All Life Stages and Other Vulnerable Populations

Strategy 3: Advance EPA’s Organizational Excellence and Workforce Equity

Strategy 4: Strengthen Tribal, State, and Local Partnerships and Enhance Engagement

Cross-Agency Strategy 1: Ensure Scientific Integrity and Science-Based Decision Making

Deliver rigorous scientific research and analyses to inform evidence-based decision making.

Introduction

EPA's ability to protect human health and the environment depends on the integrity and quality of the information, data, and evidence that provide the scientific foundation for Agency decisions. EPA is committed to restoring the public's trust in government through scientific integrity and science-based decision making. As both a producer and user of scientific information, data, and evidence, EPA is responsible for delivering scientific research and analyses to inform science-based decision making and for using the best available scientific information, data, and evidence to inform decisions and develop environmental policies, guidance, and regulations. EPA's cross-agency strategy will strengthen EPA's culture of scientific integrity, advance the delivery of rigorous and independent scientific evaluation and analyses, and ground EPA's actions in the best available science.

Science touches all parts of EPA, from regional laboratories that analyze scientific data to inform immediate and near-term decisions on environmental conditions, emergency response, compliance and enforcement, to national program scientists and engineers who conduct and use science to inform regulations and national compliance and enforcement initiatives. A major component of EPA's science enterprise is the research and development program,⁹⁹ which focuses on delivering leading-edge research to meet near-term and long-term science needs of the Agency, informing EPA decisions, and supporting the emerging needs of Tribal, state, and community partners.

Long-Term Performance Goals

- By September 30, 2026, increase the annual percentage of Office of Research and Development (ORD) research products meeting partner needs to 95% from a baseline of 93% in FY 2021.
- By September 30, 2026, implement 126 actions for scientific integrity objectives that are certified by Deputy Scientific Integrity Officials in each EPA program and region.

Actions

Over the next four years, EPA will strengthen the policies and procedures surrounding scientific integrity and the use of science and evidence to inform Agency decision making. There are a number of key actions that support the outcomes for this strategy.

Ensuring Scientific Integrity: Scientific integrity results from adherence to professional values and practices when conducting, communicating, supervising, and using science. It ensures objectivity, clarity, reproducibility, and utility, and it provides insulation from bias, fabrication, falsification, plagiarism, outside interference, censorship, and inadequate procedural and information security. At a fundamental level, scientific integrity safeguards the science that informs EPA's mission-driven work. EPA will advance and strengthen a culture of scientific integrity across the Agency by ensuring

⁹⁹About the Office of Research and Development: <https://www.epa.gov/aboutepa/about-office-research-and-development-ord>.

adherence to the scientific and ethical standards outlined in EPA’s Scientific Integrity Policy.¹⁰⁰ EPA will make sure that every EPA employee, contractor, grantee, and collaborator understands their personal responsibility to use and communicate science with honesty, integrity, and transparency, both within and outside the Agency. Agency officials also have the responsibility to recognize the distinction between scientific information and the decisions that are informed by such information and, in so doing, not suppress or alter scientific findings or impede the timely release of scientific findings or conclusions.

To improve and strengthen the Agency’s culture of scientific integrity, EPA’s national program offices and regional offices will reaffirm their commitment to fostering open, objective, and honest investigation and discussion of scientific activities, data, and conclusions. This includes supporting robust discussion of different scientific points of view,¹⁰¹ which helps to guard against inadequate science and flawed analyses, and proactively taking action to enhance implementation of EPA’s Scientific Integrity Policy throughout the Agency. EPA will also continue to provide employees and officials with access to a network of deputy scientific integrity officials to whom they can turn for advice to prevent lapses in scientific integrity or to report allegations of a loss of scientific integrity.

Delivering Rigorous Scientific Research and Analyses: EPA will develop and deliver rigorous scientific research, assessments, and analyses to meet near-term and long-term science needs of the Agency, inform EPA decisions, and support the emerging needs of Tribes, states, territories, and communities. The Agency carries out this effort through a network of scientists, engineers, and laboratories that span EPA’s regional offices, national program offices, and research and development program. EPA will evaluate the quality, usability, and timeliness of select Agency scientific products to ensure that Agency science is relevant, timely, and of sufficient quality to inform evidence-based decision making and work to increase the percent of scientific products that meet decision makers’ needs.

As part of its overall portfolio of scientific work, the EPA will renew and refocus efforts to develop the science and quality data needed to tackle climate change, advance environmental justice, and protect children’s environmental health. To do this, EPA will restore the role of science and evidence in addressing the climate change crisis and advance a rigorous exploratory and applied climate adaptation science program. EPA will conduct climate-related research in its laboratories and centers, support research through its grants program, conduct policy-relevant assessments, communicate research and assessment results, and deliver innovative and sustainable solutions. EPA will conduct scientific research on cumulative impacts to better inform decisions aimed at advancing environmental justice. For example, EPA will conduct scientific research to improve understanding of disproportionate impacts that can arise from unequal environmental conditions and exposure to multiple chemical and non-chemical stressors, as well as how to evaluate interventions that would mitigate or eliminate such disproportionate impacts. EPA will also provide tools, training, and technical support to advance

¹⁰⁰ EPA’s Scientific Integrity Policy: https://www.epa.gov/sites/default/files/2014-02/documents/scientific_integrity_policy_2012.pdf.

¹⁰¹ Approaches for Expressing and Resolving Differing Scientific Opinions: <https://www.epa.gov/scientific-integrity/approaches-expressing-and-resolving-differing-scientific-opinions#:~:text=EPA%20expects%20and%20encourages%20all,plausible%20explanations%20of%20that%20evidence.>

community-led projects that develop scientific information, data, and evidence that inform local decisions. Finally, where feasible based on availability of data and methods, EPA will explicitly and consistently assess risks to childhood lifestages and other vulnerable populations as part of the Agency’s approach for developing risk assessments and in its research agenda.

Underlying the Agency’s scientific activities is a commitment to rigorous quality assurance, appropriate peer review, and the timely release of scientific information. EPA’s quality program¹⁰² provides the framework for planning, implementing, documenting, and assessing work performed by EPA, contractors, and grantees and for carrying out required quality assurance and quality control activities. EPA’s quality program also includes the Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency,¹⁰³ which contain EPA’s policy and procedural guidance for ensuring and maximizing the quality of information the Agency disseminates. Independent peer review is integral to ensuring the rigor of Agency analyses, methodologies, and scientific and technical products. EPA’s Peer Review Handbook¹⁰⁴ provides a roadmap to ensure the Agency’s peer review policy¹⁰⁵ is implemented effectively and that the integrity of its peer review activities can be demonstrated transparently to the public. EPA’s Public Access Plan¹⁰⁶ details the Agency’s commitment to the timely release of scientific information to the public. EPA’s *Best Practices for Clearance of Scientific Products at EPA*¹⁰⁷ promotes the development of clearance procedures that are transparent, clear, timely, predictable, and consistent.

Under the Foundations for Evidence-Based Policymaking Act of 2018, EPA is developing and will fully implement an Agencywide policy for evaluations and other evidence-building activities to ensure that evaluations and evidence that inform policies and decisions are relevant, rigorous, independent and objective, transparent, equitable, and ethical.

Using Science in Decision Making: To restore public trust in EPA’s decision making, the Agency is committed to reinforcing science as foundational to decision making. This means that EPA will strive to use and communicate science with honesty, integrity, and transparency and to make this information accessible to the public, including to overburdened and underserved communities. EPA is committed to ensuring that scientific integrity is upheld when conducting scientific, technical, or risk assessments and analyses and in the decisions that are informed by such assessments and analyses. Scientific assessments and analyses are of particular importance for informing the development of many decisions and include, but are not limited to, health or environmental effects, exposure, and impact or

¹⁰² How EPA Manages the Quality of its Environmental Information: <https://www.epa.gov/quality>.

¹⁰³ Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency: <https://www.epa.gov/quality/guidelines-ensuring-and-maximizing-quality-objectivity-utility-and-integrity-information>.

¹⁰⁴ EPA’s Peer Review Handbook: https://www.epa.gov/sites/default/files/2020-08/documents/epa_peer_review_handbook_4th_edition.pdf.

¹⁰⁵ EPA’s Peer Review Policy: https://www.epa.gov/sites/default/files/2015-01/documents/peer_review_policy_and_memo.pdf.

¹⁰⁶ Plan to Increase Access to Results of EPA-Funded Scientific Research: <https://www.epa.gov/sites/default/files/2016-12/documents/epascientificresearchtransperancyplan.pdf>.

¹⁰⁷ Best Practices for Clearance of Scientific Products at EPA: https://www.epa.gov/sites/default/files/2018-05/documents/best_practices_for_clearance_of_scientific_products_at_epa_final_21may2018.pdf.

risk assessments; cost-benefit analyses; and other technical support documents. These assessments and analyses use, evaluate, and integrate existing and emerging information and data from diverse scientific disciplines to form scientific conclusions. Because of their importance to evidence-based decision making, EPA is committed to following well established, scientifically rigorous protocols and guidelines for conducting scientific, technical, or risk assessments or analyses, which help to guard against political interference and bias and promote consistency in scientific assessments and analyses. EPA will continue to use its cross-agency Science and Technology Policy Council, and the Risk Assessment Forum that it oversees, to develop high-quality, scientifically rigorous guidelines for conducting risk assessments that incorporate new advancements in science.

Restoring public trust and confidence in EPA's actions also means being transparent about how EPA makes decisions, including being transparent about the use of science in Agency actions. EPA will strive to clearly articulate the role of science in every major action the Agency undertakes. This includes identifying the science EPA considered and clearly describing how EPA evaluated and used the science and the confidence the Agency has in the resulting scientific conclusions. It also includes allowing for public review and comment on EPA's use of science in regulatory decisions (with appropriate protections for privacy). In addition, EPA's programs will review existing internal procedures and, if needed, modify them to explicitly document the integrity and quality of the relevant scientific information, data, and evidence and how that information, data, and evidence were considered in the decision-making process. This includes any discussion of differing scientific opinions or other scientific integrity issues raised during the process.

External Factors and Emerging Issues

Several external factors and emerging issues could impact EPA's ability to achieve the outcomes under this cross-agency strategy. EPA must continue to be able to attract and retain world-class scientists and engineers to bring innovation and cutting-edge scientific and technical expertise to inform EPA's work. This strategy may also be impacted by human-made or natural disasters—including climate-related disasters—that require EPA scientists and engineers to quickly pivot from conducting planned scientific activities to generating critical scientific information, data, and evidence to inform immediate or near-term human health and environmental actions or decisions at the federal, Tribal, state, and local levels. For example, the COVID-19 global pandemic brought unforeseen and unprecedented challenges to EPA. While EPA successfully pivoted to virtual work, some field and laboratory work was delayed and some scientific resources were redirected to assist with the federal response to the pandemic, including new research to reduce the risk of exposure to SARS-CoV-2, the virus that causes COVID-19. Future pandemics could impact the Agency's ability to conduct field and laboratory work in a similar fashion. In addition, advances in science and technology (e.g., machine learning, artificial intelligence, synthetic biology) may bring new opportunities for solving environmental challenges, while also presenting new challenges for the Agency (e.g., resources, training, ethics).

Cross-Agency Strategy 2: Consider the Health of Children at All Life Stages and Other Vulnerable Populations

Focus on protecting and improving the health of children at all life stages and other vulnerable populations in implementing our programs.

Introduction

By being able to live, learn, and play free from environmental exposures that contribute to harmful health effects, children and vulnerable populations are given the best opportunity to thrive throughout their lives. Protecting children against toxic exposures is essential to human health protection and therefore, must be included in all relevant EPA decisions and programs, both regulatory and voluntary. Throughout its programs, EPA strives to apply and promote the use of science, policy, partnerships, communications, and action to protect children at all life stages and vulnerable populations from adverse health effects resulting from harmful environmental exposures. EPA also will take actions to protect children and vulnerable populations in underserved communities who suffer disproportionately from the effects of exposures enhanced by socio-economic determinants of health, and to address any impacts that are exacerbated by climate change.

Children's environmental health refers to the effect of the environment on an individual's growth, wellness, development, and risk of disease at all life stages. EPA actions will be informed by two important considerations: (1) the scientific understanding of childhood as a sequence of life stages, from conception through infancy and adolescence to early adulthood (age 21); and (2) the recognition that protecting children's health at all life stages is necessary to achieve the Agency's mission. Children may be at greater risk to environmental contaminants than adults if exposure occurs during windows of enhanced toxicological susceptibility. Children may also experience greater exposure than adults as they eat more, drink more, and breathe more in proportion to their body size and due to their unique behaviors, such as breast feeding, crawling, and hand-to-mouth activity. Children can be exposed to environmental contaminants that their caregivers may inadvertently bring home from their workplace, while adolescent workers may be directly exposed to harmful chemicals in the workplace. Finally, the effects of early life exposures may become apparent during childhood and/or may not arise until adulthood or in later generations.

Long-Term Performance Goal

- By September 30, 2026, assess and consider environmental health information and data for children at all life stages for all completed EPA actions that concern human health.

Actions

Use Science and Policy to Strengthen Protections for Children at All Life Stages and Vulnerable Populations: To best protect children's environmental health at all life stages and vulnerable populations, EPA will identify, evaluate, develop, and promote the use of science to support its policies, decisions, and actions, including regulations and voluntary programs. EPA will ensure that Agency toxicity, exposure, and risk assessments consider all relevant and available science to address the unique vulnerabilities of children and vulnerable populations, including disproportionate impacts

related to racial, ethnic, income, or other social determinants of health. These assessments will inform the evaluation and selection of the levels of exposure for regulatory action that are protective of children and vulnerable populations, including the extent to which cumulative or concurrent exposures to chemical and social stressors can modify exposure or hazard considerations.

EPA will support the development of new science to address uncertainties related to the environmental health of children and vulnerable populations, including through intramural and extramural research. EPA will update existing and develop new environmental health indicator data, including factors related to social determinants of health, to track progress, communicate trends, and identify areas that warrant additional attention. EPA will develop additional measures of benefits arising from protecting the environmental health of children and vulnerable populations and take them into account in decision making. EPA will promote training of environmental and health professionals to respond to children's health issues related to climate change, such as natural disasters.

Strengthen and Expand Partnerships and Provide Leadership: EPA will provide national leadership by working with governmental and non-governmental environmental and health organizations and provide a forum to support understanding and application of evidence-based information to children's environmental health exposure and effects. EPA will develop and support internal and external partnerships and implement programs to support the protection of children particularly at home, in dependent child-care settings, and in school and childcare settings. The Agency will leverage the capabilities of diverse groups by engaging partners and stakeholders, providing forums to develop and share evidence-based information, and distributing information through training, tool sharing, conferences, and publicly available media. EPA will support healthcare professionals, including those who provide pediatric and obstetric expertise, to better address risks from childhood exposures.

EPA will co-chair the President's Task Force on Environmental Health Risks and Safety Risks to Children¹⁰⁸ with the Department of Health and Human Services (HHS). In this role, the Agency will make recommendations to the President on federal strategies to advance children's health nationwide by exchanging information, planning targeted research, establishing concerted planning and program implementation, and enhancing public outreach to support reduction in exposure and risks to children's environmental health throughout the country. EPA will also consult with the Children's Health Protection Advisory Committee¹⁰⁹ to seek input and advice on how the Agency can improve the effectiveness of its work aimed at protecting children's environmental health.

Address Disparities: EPA will protect children and vulnerable populations who live in disproportionately impacted communities. EPA will consider how social determinants of health affect children and vulnerable populations, especially as these challenges may reduce resiliency or ability to recover from exposure to environmental hazards. As the climate changes, it is especially critical that the Agency collaboratively develops solutions and implements strategies to protect children and sensitive populations from disproportionate impacts.

¹⁰⁸ For more information on the President's Task Force on Environmental Health Risks and Safety Risks to Children, see: <https://ptfceph.niehs.nih.gov/>.

¹⁰⁹ Children's Health Protection Advisory Committee: <https://www.epa.gov/children/chpac>.

External Factors and Emerging Issues

EPA’s ability to strengthen regulatory protections for children and vulnerable populations depends in large measure on the availability of robust science and information to inform decision making. Environmental and public health statutes also differ in the extent to which they require protection of children and sensitive populations. Nationally, children’s environmental health stakeholders share common goals but face challenges in being heard due to the breadth and depth of children’s environmental health topics that require attention.

Cross-Agency Strategy 3: Advance EPA’s Organizational Excellence and Workforce Equity

Foster a diverse, equitable, and inclusive workforce within an effective and mission-driven workplace.

Introduction

To support its mission to protect human health and the environment, EPA will advance organizational excellence and equity through a workforce that reflects the diversity of the American public and maintains and promotes a culture of inclusion and accessibility. The Agency will remove barriers that may prevent small and underserved businesses from doing business with EPA and focus on developing a workforce and workplace of the future that will meet the demands of the 21st century.

In support of Executive Order 14035: *Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce*,¹¹⁰ the Agency will strengthen workforce planning of mission-critical positions and continue to prioritize equity and diversity across all aspects of work life at EPA including recruitment, hiring, development, and succession management for the next generation of workers. Additionally, the Agency will work to implement the Agency’s Gender Equity and Equality Action Plan to create a more gender equitable workforce.

In support of the President’s Management Agenda,¹¹¹ EPA will modernize information technology systems, improve Agency permitting efficiencies by developing and implementing automation solutions, enhance the physical workplace for a hybrid workforce, support employee-friendly work policies, and transition to a paperless work environment. EPA will implement efficient and effective processes across the Agency. The use of proven techniques and training will equip staff to solve problems, make improvements, and enhance EPA’s ability to accomplish its mission. Additionally, EPA will continue to safeguard against cybersecurity risks to protect Agency assets and infrastructure from potentially malicious attacks. Further, EPA will be a leader in the Federal Government in advancing the sustainability of facilities and operations while developing resiliency to respond to the risks of climate change.

Long-Term Performance Goals

- By September 30, 2026, EPA will be in full compliance with the five high-priority directives in Executive Order 14028: *Improving the Nation’s Cybersecurity*.¹¹²
- By September 30, 2026, award 4% of EPA contract spending to small businesses located in Historically Underutilized Business Zones (HUBZones) compared to the FY 2018-2020 average annual baseline of 2.2%.
- By September 30, 2026, initiate all priority climate resiliency projects for EPA-owned facilities within 24 months of a completed facility climate assessment and project prioritization.

¹¹⁰ Executive Order 14035: *Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce* (June 25, 2021): <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/06/25/executive-order-on-diversity-equity-inclusion-and-accessibility-in-the-federal-workforce/>.

¹¹¹ President’s Management Agenda, <https://www.performance.gov/pma/>.

¹¹² Adoption of Multifactor Authentication and Encryption; Encryption of Data at Rest and Data in Transit; Adoption of Enhanced Logging; and Adoption of Zero Trust Architecture.

- By September 30, 2026, EPA will achieve the highest Diversity, Equity, Inclusion and Accessibility (DEIA) Maturity Level of “Leading and Sustaining” as defined by the November 2021 *Government-wide Strategic Plan to Advance DEIA in the Federal Workforce* and achieve all EPA goals identified in the Agency’s Gender Equity and Equality Action Plan.
- By September 30, 2026, automate all priority internal administrative processes.
- By September 30, 2026, automate the major EPA permitting programs.
- By September 30, 2026, improve 1,000 operational processes.

Actions

Fostering Diversity, Equity, Inclusion, and Accessibility in EPA’s Workforce

Recruit and Maintain a Workforce Representative of the American Public: EPA strives to be a model employer for diversity, equity, inclusion, and accessibility in the Federal Government. EPA will strengthen its ability to recruit, hire, develop, promote, and retain a workforce that reflects the diversity of the American people. EPA will expand and further promote diversity, equity, inclusion, and accessibility principles and will identify and eliminate barriers that hinder such efforts. The Agency will promote diversity among EPA leadership by providing opportunities in management positions, including the Senior Executive Service. EPA will increase outreach to underrepresented and underserved communities, including minority-serving institutions, improve accessibility to Agency systems and applications, and better leverage special hiring authorities, such as Federal internship programs, to provide entry-level career development opportunities to students and recent graduates and Schedule A Hiring Authority for persons with disabilities.

In implementing Executive Order 14035 and in support of the *Government-Wide Strategic Plan to Advance Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce*,¹¹³ EPA will develop an EPA Diversity, Equity, Inclusion, and Accessibility (DEIA) Plan. EPA’s DEIA Plan will set goals for cultivating a balanced work-life-wellness environment for employees and establish measures for tracking progress. EPA will engage staff to shape Agency decisions, improve processes, and strengthen flexible work practices. EPA will strengthen its partnership with labor unions and advance equity, civil rights, racial justice, and equal opportunity across the Agency. EPA will champion fair and inclusive employee-friendly policies and opportunities for continuous learning. EPA also will develop collaboration tools to improve communication, cross-program integration, access to information, and transparency. EPA will use a maturity model to assess implementation across three levels of compliance as established in the *Government-Wide Strategic Plan To Advance Diversity, Equity, Inclusion, And Accessibility In The Federal Workforce*. The maturity model methodology will support EPA in effectively building an infrastructure for supporting DEIA according to EPA’s specific structure and needs.

¹¹³ Government-Wide Strategic Plan To Advance Diversity, Equity, Inclusion, And Accessibility In The Federal Workforce (November 2021): <https://www.whitehouse.gov/wp-content/uploads/2021/11/Strategic-Plan-to-Advance-Diversity-Equity-Inclusion-and-Accessibility-in-the-Federal-Workforce-11.23.21.pdf>.

Implement Workforce Planning/Succession Management: EPA’s mission to protect human health and the environment requires a highly skilled and dedicated workforce. More than 25 percent and growing of EPA’s workforce is or will be eligible for retirement in three years, which will impact every region and program. Along with changing workforce demographics, this presents a unique opportunity for EPA to transform its human capital processes, including workforce planning, knowledge transfer, and succession management. EPA is carrying out evidence-building activities to address priority questions related to workforce planning, one of EPA’s Learning Agenda priority areas. The Agency will use the results to inform and develop policies and approaches that equip employees with the needed competencies, knowledge, and most up-to-date tools to advance EPA’s mission.

Promoting an Effective and Mission-Driven Workplace

Create the EPA Workplace for the Future: EPA will work to modernize and enhance governance of information technology (IT), information management (IM) systems, and the associated infrastructure as well as enterprise software development and architecture capabilities. EPA will build capacity to conduct meaningful customer and stakeholder engagement and incorporate Customer Experience (CX) design practices into IT/IM systems. EPA will provide IM expertise and solutions that support programmatic planning, capacity building, and decision making. This includes geospatial capabilities, web support, access to IM solutions, and data collection, analytics, and visualization.

EPA will implement the Federal Data Strategy to leverage federal data in carrying out the Agency’s work.¹¹⁴ EPA also will continue to operate and maintain existing financial and administrative federal shared service IT solutions, and where appropriate, adopt additional federal shared services. EPA will incorporate remaining smaller legacy financial systems into the Agency’s core financial system, leverage business process automation to improve efficiency, and increase transparency of financial data for internal Agency decision making while implementing appropriate security controls and data governance.

EPA will adopt new workforce and workplace innovations to support the future of work. The re-envisioned physical workspace will require adapting space to support the seamless collaboration and engagement of a hybrid workforce. It will allow the Agency to optimize its real estate portfolio, thus reducing the Agency’s environmental footprint and facility costs in the long term through lease, utility, and security savings. EPA will adopt new IT tools to better manage shared space, reduce paper-based processes, and bridge the technology gaps in the workplace that exist when operating in a hybrid work environment. EPA also will evaluate workforce flexibilities to support the hybrid workforce transition. These actions will reimagine EPA as a model federal employer and strengthen the ability to attract, recruit, retain, and empower top talent while advancing diversity, equity, inclusion, and accessibility.

¹¹⁴ For more information on the Federal Data Strategy, see: <https://strategy.data.gov/>.

As EPA envisions the future of work with a hybrid workforce, it is imperative that EPA rethinks paper and low-tech forms and processes to move toward a paperless work environment based on electronic workflows for administrative and programmatic functions. For example, as Information Collection Requests are renewed, the Chief Data Officer of the Agency will work to transition new requests to electronic submission to modernize how EPA receives data from outside parties.

EPA will advance the paperless transformation through the automation of permit application, review, and issuance processes for EPA's permitting programs.¹¹⁵ Automation of the permit application process will reduce processing time on issuing permits, decrease the time between receiving monitoring data and engaging in enforcement actions, and foster transparency by allowing communities to search, track, and access permitting actions easily. Further, permit automation will enable the integration of climate change and environmental justice considerations into permit processes and ensure that they are addressed within the terms and conditions of the permit.

EPA will continue to digitize legacy paper records and information through the operations of EPA National Digitization Centers. The Agency will work to enhance the EPA content management system, which will leverage artificial intelligence and machine learning for content tagging in the records digitization process to improve the quality and overall availability of digitized permanent records. This will enable access to permanent records regardless of physical work location and the ability to access environmental health and safety information across organizational boundaries or environmental media.

Enhance Cybersecurity: EPA, in line with Executive Order 14028: *Improving the Nation's Cybersecurity*,¹¹⁶ will modernize its cybersecurity defenses to protect EPA networks and IT assets and strengthen EPA's ability to respond to incidents as they occur. EPA will ensure Agency IT systems support multifactor authentication and encryption, address cybersecurity protection gaps through the continuous diagnostics and mitigation program, and quickly identify and respond to federal-wide cybersecurity threats and incidents. The Agency will implement a Zero Trust Architecture, which includes comprehensive security monitoring; granular risk-based access controls; and system security automation coordinated throughout all aspects of the infrastructure to focus on protecting data in real-time within a dynamic threat environment.

Advance Justice and Equity in EPA Acquisition and Grants: Working with EPA's Equity Team and Agency partners, EPA will focus on removing barriers that may prevent small and underserved businesses from conducting business with EPA. The Agency will increase spending significantly on small and underserved businesses and specifically target businesses located in Historically Underutilized Business Zones (HUBZones).¹¹⁷ EPA will accomplish this by eliminating barriers to its procurement processes

¹¹⁵ Broad statutory frameworks for the permitting programs are found in Sections 165, 173, and 502 of the Clean Air Act (42 U.S.C. §§ 7475, 7503, and 7661a), Section 402 of the Clean Water Act (33 U.S.C. § 1342), Section 3006 of the Resource Conservation and Recovery Act (42 U.S.C. § 6926), and Section 1422 and Section 1425 of the Safe Drinking Water Act (42 U.S.C. §§ 300h and 300h-4).

¹¹⁶ Executive Order 14028: *Improving the Nation's Cybersecurity* (May 21, 2021): <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/05/12/executive-order-on-improving-the-nations-cybersecurity/>.

¹¹⁷ Small Business Administration's HUBZone Program: <https://www.sba.gov/federal-contracting/contracting-assistance-programs/hubzone-program>.

through greater diversification of the Agency’s vendor base, increasing engagement and technical assistance, and enhancing the Agency’s contracts with new vendors. For assistance agreements, EPA will develop requirements for tracking and reporting on grant place of performance, which is the location where grant dollars are spent and/or benefits are received, and incorporate equity and environmental justice considerations into the grant decision-making process to the maximum extent practicable. EPA also will partner with organizations that assist underserved communities to use EPA’s acquisition and grant processes to benefit underserved communities through providing technical assistance and outreach to support grantees in meeting federal requirements for sound financial management and lowering the barriers to federal funding opportunities.

Support Administration Climate Sustainability and Resiliency Priorities: EPA will implement all Administration Executive Orders on climate and will refocus its internal operations on the carbon pollution-free energy use and net-zero emissions in line with federal sustainability goals. Specifically, EPA will work to implement the goals established in Executive Order 14057: *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*.¹¹⁸ To accomplish this, EPA will invest in energy infrastructure retrofits to mechanical systems for existing facilities, incorporating climate sustainability and resiliency into new facility commissioning, and transition its vehicle fleet to zero-emission electric vehicles, including charging infrastructure for EPA facilities. EPA will prioritize sustainable workplace choices that Agency employees can easily practice, such as recycling and composting initiatives and eliminating single-use containers to divert and reduce solid waste from landfills. The Agency will prioritize the acquisition of sustainable products that it can reuse, refurbish, or recycle in line with statutory purchasing requirements.

EPA is committed to the safety of its personnel, the integrity of its buildings, the efficiency of its operations, and the sustainability of the communities in which its facilities are located. However, the impacts of climate change, including more frequent and intense storms, wildfires, water shortages, and sea level rise, pose challenges to meeting these objectives. Adaptation planning to protect EPA’s workforce, operations, underlying infrastructure, and supply chains is crucial. EPA will implement activities that protect the Agency’s workforce, facilities, critical infrastructure, supply chains, and procurement processes from the risks posed by climate change. Further, EPA will leverage procurement practices to increase the energy and water efficiency of its buildings where it is feasible to do so, and ensure they are climate ready.

External Factors and Emerging Issues

EPA faces several factors that may impede its ability to advance organizational excellence and workforce equity. Faced with an aging workforce that is increasingly retirement eligible, the Agency’s ability to attract staff for mission-critical occupations is a continuing challenge that impedes succession management and knowledge transfer. EPA competes with the private sector as well as other federal agencies for the diverse talent pool with skills needed for tomorrow’s workforce. Additionally, there may be barriers to federal employment that disproportionately impact underserved populations and

¹¹⁸ Executive Order 14057: *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability* (December 8, 2021): <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/12/08/executive-order-on-catalyzing-clean-energy-industries-and-jobs-through-federal-sustainability/>.

limit the ability to recruit a workforce representative of the American public. Furthermore, continually changing IT/IM and cybersecurity technologies and requirements pose challenges to implementing Agencywide enterprise architecture standards, cybersecurity readiness, and ability to modernize systems and infrastructure. Lastly, the impacts of climate change on EPA operations and physical infrastructure continue to be an unknown for which EPA must prepare.

Priority Questions

1. How do EPA's existing grant award and reporting systems identify and track grant commitments?
2. What EPA practices and tools (1) effectively track grantee progress towards meeting workplan grant commitments including outputs and outcomes and/or (2) support communication of national program level outputs and outcomes?
3. Are the commitments established in EPA's grant agreements achieving the intended environmental and/or human health results, particularly for environmental justice and underserved communities?

To view EPA's full Learning Agenda, see: <https://www.epa.gov/evaluate/evidence-act>.

EPA Capacity Assessment: Summary

Introduction

The Foundations for Evidence-Based Policymaking Act (Evidence Act) requires Chief Financial Officer Act agencies to conduct a Capacity Assessment to appraise their ability and infrastructure to carry out evidence-building activities. EPA’s approach to its first Capacity Assessment in the Strategic Plan can be broadly described in two phases:

- The initial phase focuses on assessing EPA’s ability to answer the priority questions in the Agency Learning Agenda.
- The second phase focuses on assessing EPA’s skills, organizational structure, resources, expertise, and infrastructure to meet Agency Learning Agenda goals, as well as to implement the Evidence Act across the Agency.

Preliminary Results from the Initial Phase

The initial phase assessed whether the Agency has the skills and resources to answer the priority questions in the Learning Agenda.

In 2019, EPA established three of the four¹²⁸ learning priority area workgroups focusing on key topics of interest to develop and implement the Agency’s Learning Agenda. In 2021, as part of the initial Capacity Assessment, the Agency conducted a survey and focus groups of the learning priority area workgroup members to examine whether the Agency has access to the skills and resources to answer the questions in these three learning priority areas. The survey respondents and focus group participants included members of the workgroups for the three initial learning priority areas: Drinking Water Systems Out of Compliance, Workforce, and Grant Commitments Met.

Preliminary Take-Aways: All three priority area workgroups expressed concern about data availability, data access, and available resources beyond FY 2022. Although these concerns remain, considerable progress is being made to answer the learning agenda questions. Key priorities for these workgroups include: communications and change management; engaging with states to fulfill data needs; and ensuring collaboration with various internal and external stakeholders throughout this effort.

Development of the Maturity Model Approach for the Agencywide Assessment

The second phase of the capacity assessment will be an Agencywide assessment based on a maturity model approach. The assessment will examine EPA’s skills, organizational structure, resources, expertise, and infrastructure (e.g., access to training, hiring capability and contract vehicles) to conduct evidence building activities, as well as to implement the Evidence Act across the Agency.

EPA’s maturity model addresses five domains: Evaluation, Data Use, Research, Statistics, and Lean Management. For each domain, the maturity model considers dimensions such as coverage, quality, methods, independence, and effectiveness. The final maturity model can be found in Appendix A of the FY 2022 Capacity Assessment Report.

To view EPA’s full Capacity Assessment Report, see: <https://www.epa.gov/evaluate/evidence-act>.

¹²⁸ The following three learning priority areas were initiated in December 2019: Drinking Water Systems Out of Compliance; Workforce; and Grant Commitments Met. The fourth learning priority area, Expanding EPA’s Toolkit of Air Benefits Assessment Methodologies and Practices, was added to the Agency Learning Agenda in April 2021 after the capacity assessment survey was underway.