



YEAR IN REVIEW

2020

INTRODUCTION



The COVID-19 pandemic made 2020 a difficult year for the U.S. Environmental Protection Agency (EPA) and for all Americans. But as I reflect on the past year, there remains much to be proud of and thankful for. December brought the EPA's 50th Anniversary, and with it, an opportunity to look back and see all the EPA has accomplished this year, over the last four years, and in half a century.

The country showed tremendous resilience in the face of this year's adversity, as did the EPA, which, both as an institution made up of people and as an environmental regulator, responded to the pandemic with fortitude and transparency. The agency's hard work and persistence ensured that environmental protections continued throughout the country during 2020.

No matter the challenges we face, that labor can never be halted, for we have been given a great gift to care for. The United States is a beautiful country. The health of our people and our environment is a grave responsibility, one I have been grateful to help carry as EPA administrator. As I consider that task, I am reminded of what one of our Founding Fathers said of this land. John Jay wrote in Federalist No. 2:

Providence has in a particular manner blessed it with a variety of soils and productions, and watered it with innumerable streams, for the delight and accommodation of its inhabitants. A succession of navigable waters forms a kind of chain round its borders, as if to bind it together; while the most noble rivers in the world, running at convenient distances, present them with highways for the easy communication of friendly aids.

Our waters, our air, this earth, is an inheritance we all share as Americans, and the EPA works to preserve it as a delight and blessing to our posterity.

To accomplish this, the work of the EPA, and that of all regulatory agencies, must be done with transparency and accountability. This means acting with deference to Congress, which represents the American people as the chief instrument of our self-government. The EPA should not be writing rules that operate just like laws that Congress didn't pass, or that the Supreme Court didn't uphold. While Founders like John Jay believed legislative ambition posed

a future threat to liberty, the danger they saw in the legislature is more evident in executive agencies today, which were designed to function, for the good reasons of long-term planning and consistency, in large part without the check of elections. But now, it is all too common that regulatory measures will extend beyond their original statutory authority given them by our representatives, to other spheres at the sole discretion of unelected bureaucrats.

Transparency and its other companion, consistency, are hallmarks of good regulation. As administrator, I have worked to ensure that at every turn EPA's operations and decisions are becoming more and more transparent, and that its analyses and judgments are becoming more and more consistent. The American people deserve the chance to understand the why of regulations in addition to the what, and both should be as clear as possible. From costs and benefits to scientific studies, the foundations of EPA actions should be available to public scrutiny. Our experiment in representative democracy—our hope to keep a free republic—demands it.

But the most fundamental why of EPA's work remains this country. I think of the words of my favorite author, William Shakespeare. In *Richard II*, a great meditation on government by the greatest master of the English language, Shakespeare gives words to how we must all feel about the beauty and magnificence of our country. Of course, he wrote of England, but I feel no hesitation in claiming this, too, for America.

This other Eden, demi-paradise,
This fortress built by Nature for herself
Against infection and the hand of war,
This happy breed of men, this little world,
This precious stone set in the silver sea,
Which serves it in the office of a wall
Or as a moat defensive to a house,
Against the envy of less happier lands,
This blessed plot, this earth, this realm, this England.

It is this feeling that moves our work at the EPA. Through the hard work of thousands, spread across the country in regional offices and research facilities, we protect human health and the environment in the United States, our own blessed plot.

I'm proud to present in this report a review of accomplishments for a year that, in terms of both policy and regulatory actions, rivals any year in the agency's history; an extraordinary statement when taking into account its challenges. These achievements continue four years of successes at EPA, and I hope herald another half century of responsible and transparent work on behalf of all Americans. Here are some of them in brief.

AIR

Early in the Trump Administration, EPA promised to complete National Ambient Air Quality Standards (NAAQS) air quality reviews within a 5-year time frame, as specified in the Clean Air Act.

In April, EPA proposed to retain current NAAQS for particulate matter (PM) including both fine particles (PM_{2.5}) and coarse particles (PM₁₀), and the agency finalized these rules in December. The decision maintains standards that were set by the Obama-Biden Administration. EPA also finalized the 2015 ozone NAAQS review by the end of the year, marking only the second time in its history the agency has met the 5-year timeframe.

This attention to air quality has been a major benefit to the health and welfare of tens of millions of Americans and is a testament to EPA's persistent focus on protecting human health and the environment.

In June, we published a report documenting the remarkable improvements in America's air quality since the agency's founding a half century ago.

Between 1970 and 2019, the combined emissions of six key pollutants fell by 77 percent while the economy grew 285 percent. Since the Trump Administration entered office, combined air pollution emissions have fallen more than 7 percent, even as the economy continued to grow.

And since 2017, EPA has redesignated more than 55 non-attainment areas around the country to attainment. These redesignations help communities economically and represent improved health outcomes for several million citizens living within these areas.

In March, EPA published its final Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which increased vehicle emissions standards 1.5 percent through 2026. In April, the agency corrected flaws in the Mercury and Air Toxics Standards (MATS) for coal- and oil-fired power plants.

EPA has taken numerous steps to clarify and improve New Source Review (NSR) permitting requirements, alleviate unnecessary burdens on the oil and natural gas industry, and streamlined existing fuel regulations to curb unnecessary regulatory burdens on refiners.

EPA finalized a rule in December establishing requirements to ensure consistent, high-quality analyses of benefits and costs for significant rules under the Clean Air Act.

EPA also proposed the first greenhouse gas (GHG) emissions standards for aircraft and finalized amendments to the national marine diesel engine program to address the lack of available Tier 4 marine diesel engines for high-speed commercial vessels.

WATER

We took action to finalize the Navigable Waters Protection Rule (NWPR), giving clarity to landowners, farmers, and ranchers as to what waters on or near their property are federally regulated.

Regarding water quality and water infrastructure, EPA has provided \$6 billion in credit assistance to help finance more than \$16 billion in water infrastructure through the Water Infrastructure Finance and Innovation Act (WIFIA), which began giving out grants in 2018.

All told, through a combination of WIFIA and other funding vehicles like the State Revolving Loan Fund Program, EPA has invested more than \$40 billion in water infrastructure since the start of the Trump Administration.

EPA has worked diligently to ensure the safety of drinking water for children and young adults by overhauling the Lead and Copper Rule for the first time in nearly 30 years. This rule provides a comprehensive approach to reducing lead in the nation's drinking water to better protect families and children across the United States.

EPA also implemented the *Federal Action Plan to Reduce Childhood Lead Exposure* and finalized the Use of Lead-Free Pipes, Fittings, Fixtures, Solder, and Flux for Drinking Water Rule to significantly limit the lead content in plumbing materials.

LAND

In the past several years, EPA has reinvigorated the Superfund program—cleaning up America’s most contaminated sites and bringing them back into productive use.

This year, EPA deleted all or part of 27 sites from the National Priorities List for the second consecutive year, which was the largest number of deletions in a single year since FY 2001, bringing the total number of full and partial Superfund site deletions in the past four years to 82.

In September, EPA announced the Office of Mountains, Deserts and Plains as a way to focus on the complex and unique issues related to the cleanup of hardrock mining sites west of the Mississippi River.

And under the Trump Administration, EPA’s Brownfield and Land Revitalization Program has provided about \$295 million directly to communities for cleanup, redevelopment, job creation, and economic development. Since 1995, communities that are part of the Brownfields Program have been able to attract more than \$33 billion in cleanup and redevelopment funding.

EPA has also reinvigorated the federal government’s role in promoting recycling. We established the annual America Recycles Day Summit in November in 2018 and organizing the America Recycles Pledge, which more than 250 organizations have signed promising to work together to improve the American recycling system.

At the third annual America Recycles Day Summit in November 2020, EPA unveiled America’s newest National Recycling Goal to increase the national recycling rate to 50 percent—up from roughly 32 percent—by 2030.

CHEMICALS & PFAS

The agency made progress in finalizing the risk evaluation for the first 10 high priority chemicals as directed by Congress and reducing the use of animal testing, including hosting the Second Annual Conference on the State of the Science on Development and Use of New Approach Methods for Chemical Safety Testing.

The agency has aggressively addressed per- and polyfluoroalkyl substances (PFAS) that have been persistent in the environment for decades with too little attention given the issue. In February, EPA celebrated the first year of progress under the PFAS Action Plan by releasing the first-ever PFAS Action Plan Program Update, and in December we issued a memo detailing the interim National Pollution Discharge Elimination (NPDES) permitting strategy for PFAS.

ENFORCEMENT

Starting in 2018, the agency reversed the downward trend in new criminal cases opened that began in 2011.

Over the last four years, EPA’s enforcement and compliance actions resulted in over \$5.7 billion in combined civil penalties, criminal fines, and restitution collected, and the investment of \$32.2 billion in actions and equipment that achieve compliance.

COMMUNITIES

In September, I delivered a speech at the Richard Nixon Presidential Library and Museum that included a vision for how EPA can help communities become healthier in a more comprehensive way through “community-driven environmentalism.”

In this speech, I noted that political neglect is a form of harm involving communities that have suffered from past industrial pollution, and I charged EPA's Office of Policy with initiating a series of actions to better serve communities in need.

As one example, we're creating a one-stop shop to make it easier for communities to access available funding and other agency resources by expanding our Water Finance Clearinghouse, which was launched in 2017. This Clearinghouse will now provide available funding and financing for land and air, as well as water.

On December 2, EPA hosted a virtual event to celebrate its 50th anniversary, where we unveiled the new Ruckelshaus Conference Center at EPA headquarters in honor of EPA's first administrator, William D. Ruckelshaus. The event presented remembrances from several former administrators and deputy administrators and tributes to the seven charter employees who have been working at EPA for the entire 50-year period.

We helped celebrate our 50th anniversary by creating special award programs with the Boy and Girl Scouts helping to train the next generation of conservationists.

The list of the agency's accomplishments over the last 50 years is extraordinary; our accomplishments in 2020, as we sought to continue that legacy, have been remarkable as well.

I expect the next half century to be full of challenges for EPA, and I have great confidence they will be met with the same skill and resolve that helped this agency overcome every challenge it faced in the last 50 years. It is a grave responsibility to protect the health of the American people and our environment. It requires the EPA to pursue its work with transparency, accountability, and consistency before Congress, the law, and the public. But at bottom, it requires gratitude for this land, our blessed plot of earth, set in magnificent waters beneath an endless sky. America is great because it is beautiful, and the life, liberty, and happiness of our country is planted in this fertile soil.



Andrew R. Wheeler



TABLE OF CONTENTS

| | |
|--|----|
| COVID-19..... | 7 |
| EPA at 50..... | 10 |
| Air..... | 11 |
| Water..... | 21 |
| Land..... | 28 |
| Chemicals..... | 36 |
| Enforcement..... | 40 |
| Office of Policy..... | 44 |
| International & Tribal Affairs..... | 47 |
| Research & Development..... | 53 |
| PFAS..... | 56 |
| Children’s Health..... | 60 |
| Lead..... | 62 |
| Public Engagement & Environmental Education..... | 65 |
| Agriculture..... | 66 |
| General Counsel..... | 68 |
| Office of Continuous Improvement..... | 71 |
| Office of Mission Support..... | 72 |
| Office of the Chief Financial Officer..... | 73 |
| Risk Communication..... | 74 |
| Region 1..... | 75 |
| Region 2..... | 77 |
| Region 3..... | 79 |
| Region 4..... | 80 |
| Region 5..... | 82 |
| Region 6..... | 83 |
| Region 7..... | 85 |
| Region 8..... | 87 |
| Region 9..... | 89 |
| Region 10..... | 91 |

COVID-19

Since the declaration of the public health emergency, EPA has aggressively worked to ensure that Americans are aware of and have access to effective surface disinfectant products to use against SARS-CoV-2. These actions include:

Quickly Providing Consumers with Options for COVID-19 Disinfectants

EPA has the responsibility to approve disinfectants for use on surfaces. In January, the agency activated—for the first time ever—its Emerging Viral Pathogens Guidance for Antimicrobial Pesticides. Under this guidance, manufacturers provide the agency with data, even in advance of an outbreak, to show their products are effective against harder-to-kill viruses. Through this guidance and the agency’s review of newly registered products, EPA’s list of products that meet the agency’s criteria for use against SARS-CoV-2 (known as List N) includes more than 500 products. In many cases, the agency was able to approve claims in as little as 14 days, as opposed to the historical two to three months.



In July, EPA began expediting applications from companies requesting to add electrostatic sprayer use directions to products intended to kill SARS-CoV-2. Electrostatic spraying has gained interest because of the public health emergency and the need to disinfect large indoor spaces or areas with many surfaces.

Addressing Supply Chain Disruptions

In response to reports of shortages of active ingredients used in the surface disinfectants that are effective against SARS-CoV-2, EPA took important actions.

In April, EPA eased some routine reporting requirements to enable products to reach consumers faster without waiting for EPA approval. And in March, April, and May, EPA implemented changes to its regulatory processes to allow disinfectant manufacturers to source certain ingredients from alternate suppliers, helping to address supply chain disruptions and ensure the continued availability of disinfectants.

Providing Flexibilities in Response to the Public Health Emergency

In response to stakeholder requests, EPA provided flexibilities for agricultural employers in annual worker protection training, for states in administering pesticide applicator certification programs, and for addressing respiratory protection equipment shortages. EPA encouraged employers to provide pesticide safety training outside, in smaller than usual groups with well-spaced participants, as well as remotely. In addition, EPA allowed for certain temporary changes to certification programs to be pre-approved and implemented to help ensure worker protection while supporting business continuity.

Approving First Ever Long-Lasting Antiviral Product for Use Against COVID-19 and Issued Guidance for Long-Lasting Claims

In August, EPA announced a groundbreaking development in the Trump Administration’s efforts to combat the novel coronavirus. In a first-of-its kind step, EPA issued an emergency exemption to the State of Texas permitting it to allow American Airlines and Total Orthopedics Sports & Spine to use a new product that kills pathogens like the SARS-CoV-2 virus on surfaces for up to seven days. This product provides longer-lasting protection in public spaces, increasing consumer confidence in resuming normal air travel and other activities. While traditional disinfectants only kill viruses and bacteria that are on the surface at the time they are used, surfaces treated with residual antimicrobial

products kill pathogens that come into contact with the surface for days, weeks, or years after the product is applied.

In October, EPA announced another major step forward in the Trump Administration's efforts to ensure that all Americans have access to such disinfectants for both commercial and household use. Through new draft guidance EPA released, companies are now able to demonstrate that their products have "long-lasting" or "residual" effectiveness on surfaces against viruses like SARS-CoV-2. This provides an expedited path for our nation's manufacturers and innovators to get cutting-edge, long-lasting disinfecting products into the marketplace as safely and quickly as possible.



Administrator Wheeler views an American Airlines disinfecting demonstration with SurfaceWise 2.

[Helping Communities Address the Pandemic](#)

In response to the COVID-19 pandemic, EPA made \$2 million in grant funding available to states, local governments, tribes, and U.S. territories through the State Environmental Justice Cooperative Agreement Program. These funds went to projects designed to address environmental justice concerns and issues related to COVID-19.

In addition to the agency's work on disinfectants, EPA also worked to provide clarity in the midst of the pandemic. For example, EPA recognized the extraordinary situations the agriculture industry has faced since the beginning of the COVID-19 outbreak and has worked across our program offices to ensure continuity in the food supply.

Through temporary policies on facility inspections, offering resources for carcass disposal management, and addressing PPE shortages for pesticide application, EPA is listening to the agriculture community to learn what's happening locally and is working with additional agencies and the White House to determine the best course of action. EPA's Office of Enforcement and Compliance Assurance's National Agriculture Center served as a critical resource to assist producers with regulatory and non-regulatory information.

[Cutting-Edge Agency COVID-19 Research](#)

In Spring 2020, EPA's Office of Research and Development (ORD) began research designed to help understand and reduce the risk of exposure to SARS-CoV-2, the virus that causes COVID-19. This research is helping states, tribes, local, and territorial governments, including public health agencies, homeowners, business owners, and workplace managers design and implement actions that reduce the risk of exposure to SARS-CoV-2.

- EPA researchers are studying SARS-CoV-2 aerosols including fate and airborne transport, and opportunities to reduce exposure in an office environment and mass transit settings. The agency is also evaluating potential aerosol disinfection device technologies in various scenarios.
- EPA researchers developed an approach for monitoring SARS-CoV-2 levels in wastewater and are working on a method that may be used to determine if there is potential for infection from SARS-CoV-2 in wastewater.
- Reducing the risk of exposure to SARS-CoV-2 relies on effective cleaning and disinfection, along with continued social distancing practices. EPA researchers have developed a Rapid Viability - Reverse Transcriptase Polymerase Chain Reaction – a quick, dependable, and accurate analytical method for detecting live or viable SARS-CoV-2 in environmental surface samples. The researchers are also evaluating microbial disinfectants and application methods for

surfaces and objects that are frequently touched by multiple people.

- EPA researchers developed a non-invasive salivary antibody assay for COVID-19 infection. Using nearly 200 volunteers, researchers are currently testing the assay's efficacy.

In addition to research, ORD also transferred over 22,000 personal protective items including gloves, respirators, protective suits, booties, and lab coats from its laboratories in Athens, Georgia; Research Triangle Park, North Carolina; Ada, Oklahoma; and Corvallis, Oregon, to Federal Emergency Management Agency to support the battle against COVID-19. These efforts were matched in EPA regions; for example Region 5 collected, prepared, and transferred almost 10,000 surplus PPE items to partner response organizations.

Protecting Consumers During the Pandemic through Robust Enforcement

EPA has protected consumers from fraudulent claims related to the novel coronavirus by taking action under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), including taking 447 civil enforcement actions (including stop sale, use or removal orders, notices of refusals of admission for imports, and administrative or judicial cases), opening approximately 60 criminal enforcement cases, and providing compliance information to businesses, consumers, and federal agencies. These actions include:

- Issuing Stop Sale, Use, or Removal Orders to 11 e-commerce retailers, including Amazon and eBay, to prevent further distribution of multiple unregistered and misbranded pesticides and devices.
- Working closely with U.S. Customs and Border Patrol (CBP) to prevent the importation of more than 8 million units of illegal products and over 700,000 pounds of bulk product into the U.S.
- Working closely with the U.S. Department of Justice (DOJ) and other federal agencies to increase deterrence through arrests and

criminal charges.

- Issuing a compliance advisory to provide consumers with information about products claiming to kill or be effective against SARS-Cov-2 and an additional compliance advisory with information on UV lights that claim to be effective against viruses and bacteria.
- Developing a new webpage on FedCenter.gov, in collaboration with other federal agencies, on federal, agency-specific, and non-federal guidance and recommendations released by various organizations with respect to COVID-19.

EPA always has a major role working with federal, tribal, state, and local government partners to help communities prepare for and respond to hurricanes and other natural disasters. This year, we rose to the challenge to not only meet the needs of communities across the country during a challenging hurricane season, but also during an unprecedented public health crisis.

6 Steps for Safe & Effective Disinfectant Use

Step 1: Check that your product is EPA-approved
Find the EPA registration number on the product. Then, check to see if it is on EPA's list of approved disinfectants at: [epa.gov/listn](https://www.epa.gov/listn)

Step 2: Read the directions
Follow the product's directions. Check "use sites" and "surface types" to see where you can use the product. Read the "precautionary statements."

Step 3: Pre-clean the surface
Make sure to wash the surface with soap and water if the directions mention pre-cleaning or if the surface is visibly dirty.

Step 4: Follow the contact time
You can find the contact time in the directions. The surface should remain wet the whole time to ensure the product is effective.

Step 5: Wear gloves and wash your hands
For disposable gloves, discard them after each cleaning. For reusable gloves, dedicate a pair to disinfecting COVID-19. Wash your hands after removing the gloves.

Step 6: Lock it up
Keep lids tightly closed and store out of reach of children.

[coronavirus.gov](https://www.coronavirus.gov)

Infographic from EPA and CDC guidance to help facility operators and families properly clean and disinfect spaces, such as homes, businesses, schools, and more.

In response to the COVID-19 pandemic, EPA took action to ensure that decisions about new or ongoing cleanup activities at sites across the country were made with the health and safety of communities, state and tribal partners, EPA staff, and contractors as the priority. Our guidance focused on decision-making at emergency response and longer-term cleanup at sites where EPA was the lead agency or had direct oversight of, or responsibility for, the cleanup work. This included, but was not limited to, Superfund cleanups, Resource Conservation and Recovery Act (RCRA) corrective actions, Toxic Substance and Control Act (TSCA) polychlorinated biphenyls (PCB) cleanups, Oil Pollution Act spill responses, and Underground Storage Tank Program actions. EPA also shared this guidance with states to take into consideration as they encounter similar issues at state-lead RCRA cleanup sites.

Children's Health & Schools

In September, EPA issued a press release to encourage schools and universities to use EPA-approved products and disinfectants to keep students safe. As part of the efforts to safely reopen schools, EPA continues to work closely with states, local governments, and the Centers for Disease Control and Prevention (CDC) to provide up-to-date information to protect public health as school districts, private schools, and universities develop and implement COVID-19 re-entry plans for their students, staff, and parents.

EPA also hosted a webinar, “Addressing Disease Mitigation in Schools, Daycare Centers, and Universities with Sanitizers and Disinfectants,” in October, which discussed best management practices for cleaning and disinfecting schools, daycares, and universities.

In August, Pediatric Environmental Health Specialty Units (PEHSU) received funding from the Agency for Toxic Substances and Disease Registry (ATSDR) to lead national efforts to educate health professionals and families on safe disinfectant use and COVID-19 risk-reduction practices. This initiative will provide leadership, instructional content, and technical support to guide target audiences to reduce the spread of COVID-19, with special attention given to groups that are most at

risk of poor health outcomes.



EPA AT 50

This year, EPA celebrated our 50th anniversary with monthly themes highlighting progress across each of the agency's program areas, culminating in a virtual celebration at EPA's headquarters. Since EPA was founded in 1970, criteria air pollutants and their precursors have declined 77 percent; over 92 percent of community water systems meet all health-based standards, all the time; and once contaminated areas are being cleaned up in record numbers under the Superfund program.



EPA's new Ruckelshaus Conference Center

On Dec. 2, 2020, Administrator Wheeler addressed an audience from EPA's new Ruckelshaus Conference Center, which was dedicated to the late EPA Administrator William Ruckelshaus during the 50th anniversary celebration.

“In late 1970, at the time of Ruckelshaus’ appointment by President Richard Nixon, an environmental crisis was unfolding across America.

“Smog was at unhealthy – even deadly – levels in many cities, rivers were so polluted they were catching fire, and lead

was an ingredient in many products such as paint and gasoline that were being used by millions of Americans every day.

“Ruckelshaus, who was working for the Justice Department at the time and had experience as an environmental regulator in his home state of Indiana, had to create the agency from scratch.

“Up until that point, environmental programs were scattered throughout the Federal government, and didn’t properly support the states in their environmental efforts. This left an enormous gap in the protections necessary to complete the agency’s compelling mission, which was and remains, to protect human health and the environment. EPA’s job, as the country’s new environmental enforcement agency, was to ‘clean up America,’ an enormous task if ever there was one.

“So, Ruckelshaus went to work, and in a short period of time, he compiled an impressive list of accomplishments, including:

- creation of the first air quality standards under the Clean Air Act;
- the development of clean-water-permit requirements for cities and industries;
- the building of the agency’s enforcement arm; and
- establishment of standards for lead-free gasoline.

“All in less than three years.

“And he returned to the agency in the early 1980s during the Reagan Administration for another stint as Administrator, making him both the 1st and the 5th Administrator of the EPA, the only individual to hold the position twice.

“Through his efforts, Ruckelshaus established a set of core values that continue to guide the agency a half century later: respect for the law and the statutes governing EPA, adherence to

the highest quality science, and transparency.

“And now, 50 years later, the United States has the cleanest air, water, and land in living memory.”



Improving Air Quality

This year, EPA released “Our Nation’s Air – EPA Celebrates 50 Years!” which documents remarkable improvements in air quality across America since 1970, and particularly over the last few years under President Trump. The report shows that, between 1970 and 2019, the combined emissions of six key pollutants dropped by 77 percent while the economy grew 285 percent. Since 2017, the emissions of these pollutants dropped 7 percent.

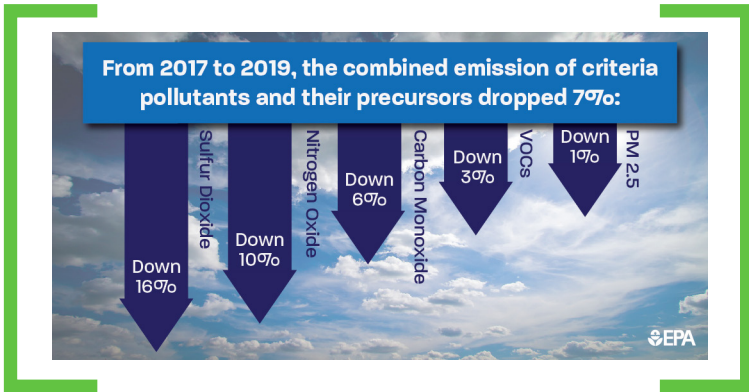
As a result of these falling emissions, in 2019 we saw a significant improvement in air quality. From 2017 to 2019, the number of days listed as unhealthy for sensitive groups in the Air Quality Index dropped by 34 percent as the amount of criteria pollutants in our air continued to fall.

- Carbon monoxide fell 10 percent.
- Lead (3-month average) fell 28 percent.
 - Since 2010, lead concentrations in the air have fallen by 85 percent.
- Ozone fell 4 percent.
- NO₂ (annual) fell 4 percent.
- Large particulates (24-hour) fell 22 percent.
- Fine particulates (24-hour) fell 12 percent.
- Sulfur dioxide fell 10 percent.

The U.S. now has some of the lowest fine particulate matter levels in the world.

- Five times below the global average.
- Seven times below Chinese levels.
- 20 percent lower than France, Germany and Great Britain.

Exposure to fine particle pollution has improved significantly for people with low socioeconomic status living in monitored counties. Based on the most recent monitoring data, over 80 percent of that population is breathing air that meets EPA's 2012 annual or 2006 24-hour PM_{2.5} National Ambient Air Quality Standards, compared to only 43 percent in 2008.



Working with States and Local Communities to Improve Public Health and the Environment

From 2019 to 2020, EPA acted on more than 430 State Implementation Plans (SIPs), including 211 backlogged SIPs. In January 2013, the SIP backlog was 699. By July 2020, the SIP backlog had fallen to 350, a roughly 50 percent decrease. During this same period, the historic backlog (SIPs backlogged as of 2013) has decreased from 699 to 68 – a 90 percent decrease.

Over the past three years, the agency has taken action on over 1200 SIPs, both new and backlogged. EPA has made a concerted effort to convert previously issued Federal Implementation Plans (FIPs) into SIPs. Since January 1, 2017, EPA has converted 20 FIPs to SIPs. Since 2016, Region 6 alone has reduced the number of backlog SIP revisions from 46 to 22.

During this same period, EPA has finalized 57 redesignation actions – moving communities from non-attainment into attainment of national air quality standards. These redesignations mean cleaner air, improved health outcomes, and greater economic opportunities for cities and communities across the country. EPA continues to work with state partners and is on track to redesignate at least 25 additional areas by 2022.

Finalizing National Ambient Air Quality Standards for Ozone and Particulate Matter

EPA is following the principles established in the earliest days of the Trump Administration to streamline the National Ambient Air Quality Standards (NAAQS) review process and to fulfill the statutory responsibility to complete the NAAQS review within a 5-year timeframe. EPA finalized the 2015 ozone NAAQS review in December 2020 – marking only the second time the agency has met the 5-year timeframe in its history. This is a needed departure from the previous administration's failure to meet statutory deadlines, often taking twice as long to promulgate updated standards. Over the years, the process for reviewing the NAAQS strayed from the required 5-year timeframe to an unpredictable timeline.

EPA is focused on reviewing the NAAQS within the Clean Air Act 5-year timeframe. Because of the potentially significant impacts of a NAAQS revision on economic activity, state agency planning resources, public health, and the environment, it is important that these reviews are completed in a timely, efficient, and transparent manner.

Maintaining the PM NAAQS

In December—at a virtual press conference with West Virginia Governor Jim Justice, U.S. Congressman Alex Mooney (WV-02), West Virginia Department of Environmental Protection Secretary Austin Caperton, and Senior Deputy Attorney General Douglas Buffington—Administrator Wheeler announced the agency's final decision to retain the existing NAAQS for particulate matter (PM) set by the Obama-Biden Administration without changes. The decision to retain existing standards, which applies to the NAAQS for both fine and coarse particulate matter (PM_{2.5} and PM₁₀), came after careful review and consideration of the most recent available scientific evidence and technical information; consultation with the agency's independent scientific advisors; and consideration of more than 60,000 public comments on the proposal.

“I am very proud to join Administrator Wheeler for this important announcement for our whole country. The fact that the

U.S. has the most vibrant economy in the world, and yet our particulate matter is five times lower than the global average, is a testament to the leadership of President Trump, the U.S. EPA, and the entire Trump Administration,” said West Virginia Governor Jim Justice.

“This is an important announcement for West Virginia. We need to continue to support policies that keep our air clean, while protecting the job producers in our state. This regulation accomplishes those goals,” said West Virginia Attorney General Patrick Morrisey.

“Today’s announcement by the EPA of the finalization of the National Ambient Air Quality Standards rule is a big win for West Virginia. As crafted this rule well balances the need for a cleaner environment with the need for continued economic development. Under the leadership of President Trump, America has cleaner air and is energy independent, with West Virginia serving as the backbone for our nation’s energy production,” said Congressman Alex X. Mooney (WV-02).

Maintaining the Ozone NAAQS

Also in December, EPA announced its decision to retain, without changes, the 2015 ozone NAAQS set by the Obama-Biden Administration. It marks the second time in Clean Air Act history that the agency has completed an ozone NAAQS review within the congressionally mandated five-year timeframe. The decision to retain the existing ozone standards comes after careful review and consideration of the most recent available scientific evidence and technical information; consultation with the agency’s independent science advisors; and consideration of more than 50,000 public comments on the proposal.

Improving Active Forest Management

EPA partnered with representatives from The Wildland Fire Leadership Council (WFLC), U.S. Forest Service (USFS), U.S. Department of the Interior (DOI), CDC, and the Coalition of Prescribed Fire Councils to create a Joint Vision.

The Joint Vision reinforces that prescribed fire requires collaboration; provides agencies and partner organizations specific language that aligns their messaging around smoke and prescribed fire with the vision and vetted messages; and enhances the partnerships around prescribed fire collaboration across regulatory, public health, and the land and fire management community in jointly working towards additional vetted messages.

Consistent with President Donald Trump’s Executive Order, “Promoting Active Management of America’s Forests, Rangelands, and other Federal Lands to Improve Conditions and Reduce Wildfire Risk,” EPA supports actively managing these lands through partnerships with states, tribes, communities, non-profit organizations, and the private sector.

Commonsense Regulatory Reform

Affordable Clean Energy Rule

In June 2019, EPA issued the final Affordable Clean Energy (ACE) Rule, replacing the prior administration’s overreaching Clean Power Plan (CPP) with a rule that restores the rule of law and empowers states to continue to reduce emissions while providing affordable and reliable energy for all Americans.

The final rule comes after a thorough review of the CPP, which was done in response to President Trump’s Executive Order 13783, “Promoting Energy Independence and Economic Growth.” The actions also follow challenges from a large number of states, trade associations, rural electric co-ops, and labor unions who argued that the CPP exceeded EPA’s authority under the Clean Air Act, as well as an unprecedented stay of the CPP by the Supreme Court in 2016.

ACE will reduce emissions of CO₂ and mercury, as well as precursors for pollutants like fine particulate matter and ground-level ozone. When fully implemented, we expect to see CO₂ emissions from the electric sector fall by as much as 35 percent below 2005 levels in 2030.

In 2030, the ACE rule is projected to:

- Reduce CO₂ emissions by 11 million short

tons.

- Reduce SO₂ emissions by 5,700 tons.
- Reduce NO_x emissions by 7,100 tons.
- Reduce PM_{2.5} emissions by 400 tons.
- Reduce mercury emissions by 59 pounds.

EPA projects that ACE will result in annual net benefits of \$120 million to \$730 million, including costs, domestic climate benefits, and health co-benefits.

Benefit-Cost Analysis

In December, EPA issued a procedural rule under the Clean Air Act establishing requirements to ensure consistent, high-quality analyses of benefits and costs are provided to the public for significant rules. This final rule codifies best practices for benefit-cost analysis in rulemaking and provides clarity for states, local communities, and industry regarding EPA's rulemaking considerations. Also, it will help ensure transparency in all future EPA rulemakings.

As a part of a larger effort of regulatory reform under the Trump Administration, EPA has taken a close look at how to improve the assessment of benefits and costs that underpin regulatory decision-making. Many EPA statutes, including the Clean Air Act, contain language on the consideration of benefits and costs, but there are no regulations that ensure that the public is provided an analysis of the benefits and costs in a consistent manner across offices. This rule focuses on providing more consistent and transparent application of benefit-cost analyses under the Clean Air Act.

Cleaning Up Our Transportation Fleet with Common-sense, Cost Saving Policies and Reform

EPA Finalizes First Greenhouse Gas Emissions Standards for Aircraft

In December, EPA finalized emissions standards for airplanes used in commercial aviation and large business jets. This action will align U.S. standards with the international carbon dioxide emissions standards set by the International Civil Aviation Organization (ICAO), ensuring domestically manufactured aircraft remain competitive in the global marketplace. This final

rulemaking also sets a precedent with the Trump Administration being the first to regulate GHG emissions from aircraft.

The ICAO standards were developed with significant input from EPA, the Federal Aviation Administration (FAA), and U.S. and international aviation industries. Typically, three out of four aircraft manufactured in the U.S. are sold overseas. These standards will help ensure consistent standards across the world, and most importantly, allow U.S. manufactured planes, such as commercial and large passenger jets, to continue to compete in the global marketplace.



Improving Safety and Reducing Consumer Costs Across the Auto Industry

Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule

In March 2020, the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) and EPA released the final SAFE Vehicles Rule setting corporate average fuel economy (CAFE) and CO₂ emissions standards for model years 2021-2026 passenger cars and light trucks.

The final rule will increase stringency of CAFE and CO₂ emissions standards by 1.5 percent each year through model year 2026, as compared with the standards issued in 2012, which would have required about 5 percent annual increases. This is important in light of the fact that the majority of automakers were not meeting the 2012 standard without resorting to the use of credits. This rule fixed the CAFE standards set by the Obama-Biden Administration that forced many companies to pay costly penalties – projected to equal over

a billion dollars by 2025 – instead of reducing carbon dioxide. Such penalties are ultimately borne by hardworking Americans.

At a time of sudden economic uncertainty, the SAFE Vehicles Rule provides help for millions of American workers and thousands of businesses in the auto sector and related industries by cutting costs and increasing sales of safe new vehicles.

By the Numbers

The final rule will increase stringency of CAFE and CO2 emissions standards by 1.5 percent each year through model year (MY) 2026.

Overall Impact:

- Lower costs, thousands of lives saved, and minimal impact to fuel consumption and the environment.
- \$200 billion reduction in total costs over the lifetimes of vehicles through MY 2029, including the value of increased safety.
- \$100 billion reduction in regulatory costs.
- \$1,400 reduction of total consumer cost of ownership per new vehicle.
- More than \$1,000 reduction in sales price per new vehicle.
- 2.7 million additional new vehicles sold (because new vehicles are more affordable).

Safety:

- 3,300 fewer crash fatalities.
- 46,000 fewer hospitalizations after serious crashes projected over the lifetimes of vehicles built through MY 2029.
- 397,000 fewer injuries.
- 1.8 million fewer vehicles damaged in crashes.

Environment:

All new vehicles will continue to be subject to the strict pollution standards of the Clean Air Act, and new vehicles will be subject to higher pollution standards than the older vehicles that will be retired because of this rule.

Tier IV Marine Diesel Engines: Relief for American Pilot Boats and Lobster Fishermen

In August, EPA finalized amendments to the national marine diesel engine program to address the lack of available certified Tier 4 marine diesel engines for use in certain high-speed commercial vessels. This final rule provides much needed regulatory relief to boat builders and manufacturers of lightweight and high-power marine diesel engines.



In Kennebunkport, Maine EPA Administrator Wheeler finalized amendments to the national marine diesel engine program, providing relief for lobster fishermen and pilot boats.

Without this regulatory relief, boat builders would be unable to build these types of high-speed vessels, leaving those in the market for a new boat the choice between either purchasing underpowered, unsuitable vessels or using existing vessels with older, dirtier engines.

“This is great news for the First District and our ports. This rule will ensure bar pilots in Savannah and Brunswick are able to get the boats they need to do their jobs. Without this change to the rules, the pilots could have been forced to scale back their critical work which is required for every ship to enter and exit both the Ports of Savannah and Brunswick. The ports could have been devastated without this rule change. Instead, they will now be able to keep cargo traffic moving. I thank the EPA

for their hard work on this issue.”

- U.S. Congressman Earl L. “Buddy”
Carter (GA-01)

“We appreciate the EPA listening to and addressing the concerns of hard working Lobstermen and boatbuilders from Maine. Delaying the implementation of the Tier 4 requirements for Commercial Fishing boats allows the industry to better address safety and availability issues.”

- Maine Lobstermen’s Association
President Kristan Porter

“Due to the unique design of Maine lobster boats, at this time there are not Tier 4-compliant diesel engines available on the market that can safely fit in these types of vessels. This delay in the implementation of the Tier 4 emission standards for commercial lobster-style boats should provide engine manufacturers time to design and certify engines that will both comply with Tier 4 emission standards and work safely and efficiently in these boats. It also prevents lobstermen from being burdened by requirements that are impossible to meet with the currently available technology. We are pleased to have worked together with the EPA to find a commonsense solution that supports Maine boat builders and lobstermen.”

- U.S. Senators Susan Collins and Angus
King U.S. Representatives Chellie Pingree
and Jared Golden

Automotive Trends Report

In March, EPA released its annual Automotive Trends Report, which provides the public with information about new light-duty vehicle GHG emissions, fuel economy, technology data, and auto manufacturers’ performance in light of the agency’s GHG emissions standards.

This report provides insights into consumer choice and current market trends. Once again we see marginal improvements in fuel economy, but they are yet a far cry from the unfeasible Obama-Biden Administration’s standards. MY 2018

vehicle fuel economy was 25.1 miles per gallon, slightly higher than the 24.9 miles per gallon MY 2017. Since MY 2004, when the fleet averaged 19.3 miles per gallon, fuel economy and CO2 emissions have improved in 12 out of 14 years.

The report also assesses compliance performance for individual automakers, and for the U.S. fleet as a whole, with GHG emissions standards for light-duty vehicles. Once again, only three large manufacturers complied with MY 2018 standards based on the technology levels of their vehicles alone. However, when accounting for credits, the report shows all large manufacturers are in compliance. Most large manufacturers used banked credits, along with technology improvements, to maintain compliance in MY 2018.

Reducing Emissions and Compliance Costs for Heavy-Duty Vehicles

Cleaner Trucks Initiative

EPA continues to take concrete steps to advance the Cleaner Trucks Initiative (CTI), which Administrator Wheeler first announced in November 2018. The CTI rulemaking will establish new, more stringent emission standards for oxides of nitrogen and other pollutants for highway heavy-duty engines. Administrator Wheeler announced in January an Advance Notice of Proposed Rulemaking seeking input from the public and interested stakeholders and the agency anticipates issuing a proposal soon.

The trucking industry touches nearly every part of our economy. A strong and resilient trucking industry is imperative to maintaining a strong and resilient economy. Through this initiative, we will modernize heavy-duty truck engines, improving their efficiency, and reducing their emissions, which will lead to a healthier environment. This initiative will also ensure the U.S. continues to make major reductions in NOx emissions, while spurring innovative new technologies, ensuring heavy-duty trucks are clean, and remain a competitive method of transportation

Heavy-Duty Engines Technical Amendments

EPA has finalized changes to the test procedures for heavy-duty engines and vehicles to improve

accuracy and reduce testing burden. This rulemaking modifies existing test procedures for heavy-duty engines and vehicles. These test procedure changes improve accuracy and, in some cases, reduce test burden. These amendments also streamline the regulations, which will reduce industry costs, increase compliance flexibility, clarify and harmonize with other requirements, and correct errors.

Diesel Emissions Reduction Act Grant Funding

In April, in conjunction with the 50th anniversary of Earth Day, EPA awarded \$11.5 million to replace 580 older diesel school buses. The funds are going to 157 school bus fleets in 43 states and Puerto Rico, each of which will receive rebates through EPA's Diesel Emissions Reduction Act (DERA) funding.



In September 2020, EPA also announced that over \$73 million in grants and funding expected to be awarded to support numerous clean diesel programs and projects across the country at the state and local level. Over \$50 million in DERA National Grants Program funding is expected to be awarded to implement projects aimed at reducing diesel emissions from the nation's existing fleet of old, dirty engines and vehicles. Additionally, EPA anticipates providing approximately \$23.5 million under DERA's 2020 State Grants program to 48 states and four territories to implement their own diesel emissions reduction programs.

Highlights include:

- \$359,238 specifically for clean diesel projects in Michigan and an additional \$1.2 million for clean diesel projects in the

Midwest.

- \$3.5 million in grant funding to state and local partners in Colorado and Utah to reduce harmful diesel emissions from school and transit buses, trucks and construction equipment.
- \$547,440 specifically for clean diesel projects in Ohio.
- \$2.23 million to nine organizations in Iowa, Kansas and Missouri.
- \$1.1 million to Georgia Ports Authority.

Alleviating Burdens on Domestic Manufacturers and Industrial Sources

In April, the agency corrected flaws in the 2016 Supplemental Cost Finding for the Mercury and Air Toxics Standards (MATS) for coal- and oil-fired power plants, consistent with a 2015 U.S. Supreme Court decision. EPA also completed the Clean Air Act-required residual risk and technology review (RTR) for MATS. Power plants are already complying with the standards that limit emissions of mercury and other hazardous air pollutants (HAPs), and this final action leaves those emission limits in place and unchanged.

According to a 2018 report from the United Nations, based on 2015 emissions estimates after implementation of MATS, the U.S. accounts for less than 2 percent (1.64 percent) of global mercury emissions, while China accounts for more than 25 percent of global emissions, India emits 9 percent, and the European Union accounts for 4 percent.

EPA's revised cost finding for MATS follows the law and was prompted by a flaw identified by the U.S. Supreme Court, which found that the agency had not properly taken the cost of compliance into account when proposing regulation of HAP emissions from coal- and oil-fired power plants in 2012. After losing at the Supreme Court, the Obama-Biden EPA then failed again to properly apply cost-benefit principles in 2016. This final action re-evaluated how costs and benefits should have been considered and concluded that the projected compliance costs of MATS outweigh the projected monetized HAP-specific benefits by three orders of magnitude.

After properly evaluating the compliance cost to coal- and oil-fired power plants (costs that the EPA estimated range from \$7.4 to \$9.6 billion annually) and the benefits attributable to regulating HAP emissions from these power plants (of which the projected quantified benefits range from \$4 to \$6 million annually), the agency determined that it is not “appropriate and necessary” to regulate HAP emissions from power plants under section 112 of the Clean Air Act. However, with this final action, EPA is not removing coal- and oil-fired power plants from the list of affected source categories for regulation under section 112 of the Clean Air Act, consistent with existing case law. Those power plants remain subject to and must comply with the mercury emissions standards of the MATS rule, which remains fully in effect notwithstanding the revised cost-benefit analysis.

In addition, EPA has completed the required RTR for MATS and determined no changes to the rule are needed – satisfying statutory requirements set out by Congress in the Clean Air Act.

Continued New Source Review Permitting Reform

Under the Trump Administration, EPA has taken numerous steps to clarify and improve New Source Review (NSR) permitting requirements. The NSR program has actually resulted in facilities delaying or not installing pollution control equipment, creating adverse environmental outcomes. EPA’s steps to mitigate this include instituting guidance to:

- communicate how EPA would apply and enforce the Actual-to-Projected Actual Emissions Applicability Test;
- clarify the meaning of “Common Control” and “Adjacent” in the context of determining the scope of a stationary source;
- identify additional circumstances under which an area may be excluded from “Ambient Air”;
- provide PM2.5 and Ozone Significant Impact Level (SIL) guidance; and
- provide guidance on plantwide applicability limits.

EPA has also issued final actions to complete the reconsideration of prior agency actions on project aggregation and reasonable possibility in the context of Clean Air Act permitting and to streamline tribal oil and gas permitting activities. All of these actions will improve regulatory certainty and remove unnecessary obstacles to projects aiming to improve the reliability, efficiency, and safety of facilities while maintaining air quality standards.

In August we finalized guidance on the use of plantwide applicability limits (PALs) to clarify and enhance the flexibilities available under the existing PALs regulatory provisions.

EPA also finalized a rulemaking to implement the withdrawal of “Once in, Always in” policy. This rule added regulatory text that provides a clear language reading of the Clean Air Act section 112, allowing a “major source” of hazardous air pollutants to reclassify as an “area source” after acting to limit emissions.

In October, EPA issued a Project Emissions Accounting proposal to clarify whether a NSR preconstruction permit is needed when a major-emitting facility plans to make changes or expand.

In November 2019, EPA issued a proposed rule—the NSR Error Corrections Rule—to correct noncontroversial, non-substantive errors that have cropped up in our NSR rules over time and to make conforming changes to address the 1990 Clean Air Act Amendments.

We are also working to develop NSR training modules to address the training needs of state and local air agencies. Once complete, these trainings will be posted to our NSR website for easy access.

Alleviating Burden on the Oil and Natural Gas Industry

In August, EPA announced two final rules for the oil and natural gas industry that removes ineffective and duplicative requirements while streamlining others. These rulemakings will reduce regulatory burdens for oil and natural

gas entities while protecting human health and the environment. Combined, the two final rules are estimated to yield net benefits of \$750 to \$850 million dollars from 2021 to 2030, the annualized equivalent of about \$100 million a year.

“I applaud Administrator Wheeler for taking decisive action today and continuing to replace the destructive and burdensome bureaucratic policies of the Obama Administration with commonsense policies,” said Deputy Secretary of Energy Mark W. Menezes. “I am proud to join the Administrator in Pennsylvania, a state that will greatly benefit from these actions taken by the EPA today. These new rules will provide relief to American energy companies by reducing the massive cost of complying with unnecessary overregulation from the federal government, allowing them to instead spend their resources on job creation and energy development.”



Administrator Wheeler tours the Energy Innovation Center with President and CEO Richard DiClaudio, Deputy Secretary Menezes, and Congressman Reschenthaler.

“As someone born and raised in southwestern Pennsylvania, I have seen firsthand the impact of the natural gas renaissance on our communities, including tremendous job creation and unprecedented wage growth,” said U.S. Congressman Guy Reschenthaler (PA-14). “The rules announced today by Administrator Wheeler will remove burdensome regulations while continuing to provide for cleaner and healthier air. Thank you to the Trump Administration for taking action and for their longstanding commitment to supporting Pennsylvania gas and oil operators, fighting for American energy independence, and

fostering economic opportunities for workers and families.”

Fuels Streamlining: Finalized Cost-Saving Updates to Existing Fuels Regulations

At the Monroe Energy LLC Trainer Refinery, EPA announced the final Fuels Streamlining Rule. The finalized rule will streamline and modernize EPA’s existing regulations for gasoline, diesel, and other fuels by eliminating costly duplication and hundreds of pages of regulatory text. Under these updates, fuel standards will remain just as stringent, while reducing compliance costs for industry and EPA, ultimately saving consumers money.

Reducing Regulatory Burden and Emissions from Liquid Storage Tanks

In October, Administrator Wheeler announced a proposal that offers regulatory flexibility to petroleum, chemical, and coal products manufacturing facilities, as well as petroleum bulk stations and terminals, by amending Clean Air Act regulations to allow an alternate, less cumbersome mode of inspection for certain liquid storage vessels (tanks). This proposal would offer flexibility for more than 3,500 storage vessels to conduct “in-service” rather than out-of-service inspections. The agency estimates this proposal could save from \$768,000 to \$1,091,000 in regulatory costs annually and reduce emissions of volatile organic compounds by as much as 83 tons per year.

The current inspection method sometimes required under New Source Performance Standards (NSPS) Subpart Kb is expensive, labor intensive, and results in volatile organic compound air emissions and other pollutants from venting and flaring. The proposed amendments will both reduce burdens for these businesses and reduce emissions.

The proposal would allow owners and operators of certain large tanks known as Volatile Organic Liquid Storage Vessels to conduct less cumbersome “in-service” inspections of the tanks, without emptying and degassing the storage tank. Since 2018, EPA has received more than 300 requests from facilities seeking

permission to conduct rooftop, also known as in-service, inspections to demonstrate compliance with a 1987 Clean Air Act regulation. These one-off requests are time consuming and burdensome for both tank owners and operators and for EPA. Further, EPA understands that in recent months inspecting these large tanks from the inside has become more challenging because there is a significant increase in the need for liquid storage capacity (particularly crude and petroleum products), due to slower consumer demand.

Ethylene Oxide

As EPA pursues its mission to protect public health and the environment, addressing ethylene oxide is a major priority for the agency. EPA has taken steps to address ethylene oxide emissions since EPA's National Air Toxics Assessment, issued in 2018, found that ethylene oxide emissions may be contributing to potentially elevated cancer risk in some areas around the country. EPA has been taking a two-pronged approach to reduce these emissions. First, the agency is reviewing existing Clean Air Act regulations for industrial facilities that emit ethylene oxide. Second, because the process for revising regulations takes time, EPA is supporting our state and local air agency partners to gather additional information on ethylene oxide emissions to determine whether more immediate reduction steps may be warranted.

In May 2020, EPA issued a notice of final rulemaking for the chemical plants rule, which strengthened the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Organic Chemical Manufacturing. The final rule will achieve hazardous air pollutant emission reductions of 107 tons per year, which includes a 93 percent reduction in ethylene oxide emissions from covered processes and equipment.

EPA is also working on a second rule, the NESHAP for Commercial Sterilization Facilities. In December 2019, EPA took three important steps as part of its review of the rule. Specifically, the agency published an Advance Notice of Proposed Rulemaking to solicit information from industry

and the public on strategies for further reducing ethylene oxide emissions from these facilities; issued a mandatory data survey to more than 40 facilities to collect data on their operations; and invited small businesses, governments, and not-for-profit organizations to participate as Small Entity Representatives providing advice and recommendations to a legally required Small Business Advocacy Review Panel. EPA expects to issue a proposed rule for Commercial Sterilization Facilities in the months ahead.

EPA continues to work with states to learn more about emissions from specific facilities, identify opportunities for early reduction, and further support and coordinate outreach to communities.

In September 2020, the agency announced the selection of 11 air toxics monitoring projects to receive \$5 million in funding under the agency's Community-Scale Air Toxics Ambient Monitoring grants program. Several of these projects involve the collection of ethylene oxide data. These grants will also help monitor and provide important information to communities on air toxics, including chloroprene, benzene, 1,3-butadiene, and toxic metals.

Approving the Use of Phosphogypsum in Government Roadways

EPA approved a petition from The Fertilizer Institute to allow phosphogypsum to be used in government road construction projects. By finding a new way to use phosphogypsum, EPA is helping create a sustainable path to improve the environment while allowing for responsible reuse and recycling of a valuable byproduct.

"TFI strongly supports and appreciates EPA's science-based review and decision to allow the limited use of phosphogypsum, a by-product of phosphate fertilizer manufacturing. This decision strengthens the industry's sustainability efforts and long-term environmental stewardship," said TFI President & CEO Corey Rosenbusch.



WATER

Modernizing Our Regulatory Programs Restoring Regulatory Certainty Through the Navigable Waters Protection Rule (NWPR)

By finalizing NWPR, EPA and the Department of the Army (Army) delivered on President Trump's promise to finalize a revised definition for "waters of the United States" that protects the nation's navigable waters while supporting economic growth across the country. This rule represented the final step in a multi-step effort to clarify the definition of "waters of the United States." The rule went into effect in June 2020.

NAVIGABLE WATERS PROTECTION RULE A New Definition of WOTUS



The Rulemaking Process

- Step 1: In November 2019, EPA finalized a rule that repealed the 2015 Rule that illegally expanded the definition of "waters of the United States" under the Clean Water Act (CWA). As part of the repeal, the agencies recodified the longstanding and familiar regulatory text that existed prior to the 2015 Rule, ending a regulatory patchwork across the United States.
- Step 2: The second step in the rulemaking process is NWPR, which protects the environment while clearly delineating where federal regulations apply and giving state and local authorities more flexibility to determine how best to manage waters within their borders. NWPR also streamlines the definition of "waters of the United States" so that it includes four simple categories of jurisdictional waters, provides clear exclusions for many water features that traditionally have not been regulated, and defines terms in the regulatory text that have never before been defined before. Congress, in the CWA, explicitly directed EPA and the Army (the agencies) to protect "navigable waters." NWPR regulates these waters and the core tributary systems that provide perennial or intermittent flow into them.

Implementation: The agencies are striving for consistent implementation that is understandable to the public and will continue the longstanding practice of evaluating waters based on the weight of evidence from the best available sources of information for that waterbody.

To make sure that EPA and Army staff were prepared to implement NWPR, the agencies held a training series for staff to thoroughly review key features of the final rule. The agencies then hosted a five-part webinar training series for our state and tribal co-regulators, which included time for questions and answers.

Recognizing that other federal agencies may be subject to the CWA or have specific roles under the Act, the agencies provided two webinar trainings for our federal partners. The agencies also developed four memoranda to ensure consistent implementation of the final rule and to identify further training needs. The memos include guidance on permitting issues involving ditches, coordinating on certain jurisdictional determinations, and collaborating with the U.S. Department of Agriculture (USDA) on areas of intersection on wetlands.

Mapping Waters of the United States

There are currently no comprehensive maps or datasets through which the agencies can depict the universe of federally regulated waters under the CWA. To fill this gap, EPA and the Army have

engaged the U.S. Geological Survey (USGS) and the U.S. Fish and Wildlife Service (FWS) and established a technical working group to develop strategies that can address CWA mapping needs. Mapping water resources is an important initiative that will be of great benefit to our agencies, states, tribes, and the regulated public for purposes of identifying “waters of the United States” as well as for many other CWA programs.

Modernizing the Clean Water Act Permitting Process

Updating EPA’s CWA Section 401 Implementing Regulations

Section 401 of the CWA provides states and authorized tribes with an important tool to help protect water quality within their borders in collaboration with federal agencies. EPA finalized a rule to provide greater clarity and regulatory certainty regarding the CWA Section 401 water quality certification process, consistent with President Trump’s Executive Order 13868, “Promoting Energy Infrastructure and Economic Growth.” Prior to the Trump Administration’s efforts, the rules governing Section 401 authority had not been updated in nearly 50 years, and evolving case law and outdated agency guidance caused confusion and resulted in delays in certain infrastructure projects with potentially significant national benefits. EPA received and reviewed over 125,000 public comments on the proposed rule and finalized the rule in June 2020. The final rule establishes procedures that promote consistent implementation of CWA’s Section 401 and regulatory certainty in the federal licensing and permitting process.

Florida Assumption of the CWA Section 404 Program

On December 17, 2020, EPA announced that the State of Florida is the first state in more than 25 years to apply for and receive approval to implement a CWA Section 404 program, joining Michigan and New Jersey as the only states in the country with such authority. This action formally transferred permitting authority under CWA Section 404 from the U.S. Army Corps of Engineers to the State of Florida for a broad range of water resources within the state. This action allows the state to more effectively and

efficiently evaluate and issue permits under the CWA to support the health of Florida’s waters, residents, and economy. Florida’s submission met the standards established under Section 404 of the CWA, and the state’s implementation of the program will ensure the protection of Florida’s aquatic resources equal to or better than the existing federal permitting program. The Sunshine State is the first state or tribe to submit a complete package requesting to administer the program since 1994.



Region 4 Administrator Walker and FDEP Secretary Valenstein sign final documents for Florida 404 assumption with federal partners and members of the Florida Congressional Delegation.

Administrator Wheeler made the announcement at a press conference with Florida Department of Environmental Protection (FDEP) Secretary Noah Valenstein, White House Council on Environmental Quality (CEQ) Chairman Mary Neumayr; U.S. Representatives Mario Diaz-Balart (FL-25), Gus Bilirakis (FL-12), Dan Webster (FL-11), John Rutherford (FL-04), Michael Waltz (FL-06), and Greg Steube (FL-17); EPA Assistant Administrator for Water Dave Ross; Principal Deputy Assistant Secretary of the Army for Civil Works Ryan Fisher; EPA Region 4 Administrator Mary S. Walker; FWS Director Aurelia Skipwith; and DOI Deputy Assistant Secretary for Water and Science Aubrey Bettencourt.

In August, Regional Administrator Walker signed a Memorandum of Agreement (MOA) with the Florida Department of Environmental Protection representing the next step, and one of a number of required elements, for Florida to assume responsibility for issuing Section 404

CWA permits. The signing of the MOA followed a complex rulemaking process at the state level, including years of discussions with EPA and constituency groups during the development process. The agreement is one of only three ever executed by the EPA and a state or tribe.

Part of the review process included the development of a comprehensive Biological Evaluation of more than 200 endangered species throughout Florida. EPA also consulted with FWS under Section 7 of the Endangered Species Act, resulting in the issuance of a Biological Opinion and Incidental Take Statement related to the approval and implementation of Florida's program. EPA also completed consultation under Section 106 of the National Historic Preservation Act and entered into a Programmatic Agreement with FDEP, the State Historic Preservation Officer, and the Advisory Council on Historic Preservation to ensure that historic properties and cultural resource concerns are addressed as part of Florida's program implementation.

Vessel Incidental Discharge Act

On December 4, 2018, President Trump signed the Vessel Incidental Discharge Act (VIDA) into law. VIDA restructures how EPA and the U.S. Coast Guard (USCG) regulate incidental discharges, primarily from commercial vessels, into waters of the United States and the contiguous zone. On October 26, 2020, EPA published a Notice of Proposed Rulemaking in the Federal Register that details specific discharge standards that would apply to 20 different types of vessel equipment and systems, as well as general discharge standards that would apply more broadly to all types of vessel incidental discharges. The proposed discharge standards are technology-based and in the form of numeric effluent limits and best management practices. The proposed standards also distinguish among classes, types, and sizes of vessels and between new and existing vessels, and they are at least as stringent as the 2013 Vessel General Permit. The proposed regulations also incorporate procedures for states, working through the EPA or the USCG, as provided for in VIDA, to seek different discharge requirements, including no-discharge zones for one or more incidental discharges.

Power Plant Effluent Limitation Guidelines Saving Money and Reducing Pollution

On August 31, 2020, EPA finalized the Steam Electric Reconsideration Rule. The rule revises requirements first promulgated in 2015 for two specific waste streams produced by steam electric power plants: flue gas desulfurization wastewater and bottom ash transport water. The final rule leverages newer, more affordable pollution control technologies and will save the U.S. power sector approximately \$140 million annually while reducing pollution by nearly a million pounds per year more compared to the 2015 rule.

Investing in America's Infrastructure

Water Infrastructure Finance and Innovation Act (WIFIA)



WIFIA is providing financial support for water infrastructure at a critical time as the federal government, EPA, and the water sector work together to help mitigate the public health and financial impacts of COVID-19.

In 2020, the WIFIA program closed 32 transactions totaling over \$5.2 billion in loans to help finance nearly \$10.8 billion for water infrastructure projects across the country. Borrowers represent 14 states from all regions of the U.S. In total, these borrowers will save up to \$497 million (compared to typical market financing) and create approximately 34,000 jobs.

In July 2020, EPA announced the availability of financing for \$5 billion in WIFIA loans in its fourth selection round and \$1 billion under the first ever state infrastructure financing authority WIFIA (SWIFIA) program. The SWIFIA program,

which was authorized by Congress as part of the America's Water Infrastructure Act of 2018, offers low-interest loans to state water infrastructure programs (e.g., the State Revolving Funds) that help finance needed water infrastructure projects in local communities. WIFIA received 67 letters of interest and SWIFIA received 3 letters of interest totaling nearly \$10 billion in financing requests. The WIFIA financing requested exceeds the \$5 billion available in 2020 and is the highest amount requested since the program began.

Promoting Flexibilities in WIFIA

In 2020, EPA responded to the changing needs of current and prospective WIFIA borrowers by developing new strategies to support water infrastructure financing. For example, the WIFIA program allowed existing borrowers to update WIFIA loans to lower interest rates. In 2020, EPA refinanced 7 WIFIA loans, saving ratepayers an additional \$756 million on top of the original savings secured via WIFIA financing. In addition, the WIFIA program has developed and implemented master agreements that allow borrowers to efficiently finance multiple projects over an expanded time period.

State Revolving Fund Programs

- **Clean Water State Revolving Fund (CWSRF):** In 2019, the CWSRF provided over \$6.2 billion in assistance for a wide range of water infrastructure projects, including modernizing aging wastewater infrastructure, implementing water reuse strategies, and addressing stormwater management challenges. Since the program's inception, the CWSRF has provided over \$138 billion in low-cost funding to water quality projects across the nation. This low-cost financing represents a savings of more than \$43 billion in interest costs over the life of the program.
- **Drinking Water State Revolving Fund (DWSRF):** In 2019, the DWSRF provided over \$2.8 billion in assistance to water systems for a wide range of water infrastructure projects, including transmission and distribution, system consolidation, and drinking water treatment facilities. The DWSRF also funded an additional \$178 million for critical activities

including operator certification, water system capacity development, and source water protection. Since its inception, the DWSRF program has funded more than \$41.1 billion in infrastructure projects at below-market interest rates. This low-cost financing represents a savings of approximately \$10 billion in interest costs over the life of the program.

In 2019, EPA's Clean Water and Drinking Water State Revolving Fund programs provided \$9 billion to support new and revitalized water infrastructure across the country.



Water Infrastructure Improvement for the Nation Act

The 2016 Water Infrastructure Improvements for the Nation Act (WIIN Act) addresses, supports, and improves America's drinking water infrastructure. In 2020, EPA made available more than \$73 million to support public water systems for drinking water projects. EPA made available \$26 million to states and territories to support testing for lead in drinking water at schools and childcare programs. EPA also announced 10 selected grantees to receive \$39.9 million for projects under the Reduction in Lead Exposure via Drinking Water program.

Additionally, EPA made more than \$28 million available in 2020 for drinking water projects in tribal communities. EPA made available \$3 million to reduce exposure to lead in drinking water in tribal communities and has announced plans to make available more than \$20 million to improve access to safe drinking water for American Indian and Alaska Native populations. In July, EPA announced a \$4.3 million grant program to prioritize the testing for lead in drinking water at tribal schools and childcare programs. EPA has six recognized tribal consortia that will receive funding under this grant.

Protecting Human Health

Lead and Copper Rule

Consistent with President Trump's Executive Order, "Modernizing America's Water Resource Management and Water Infrastructure," EPA finalized the first major overhaul to the Lead and Copper Rule (LCR) in nearly 30 years. This historic action strengthens every aspect of the LCR and accelerates actions that reduce lead in drinking water to better protect children from lead exposure.

Administrator Wheeler was joined by U.S. Department of Housing and Urban Development (HUD) Secretary Ben Carson; Flint, Michigan, Mayor Sheldon Neeley; Springfield, Illinois, Mayor Jim Langfelder; Wisconsin State Senator Robert Cowles; Pennsylvania State Senator Camera Bartolotta; and Jefferson County, Colorado Commissioner Libby Szabo for the announcement.

EPA's new LCR better protects children and communities from the risks of lead exposure by testing drinking water at elementary schools and child care facilities, getting the lead out of our nation's drinking water, and empowering communities through information. Improvements under the new rule include:

- using science-based testing to better locate elevated levels of lead in drinking water;
- establishing a trigger level to jumpstart mitigation earlier and in more communities;
- driving more and complete lead service line replacements;
- for the first time, requiring testing in elementary schools and child care facilities; and
- requiring water systems to identify and make public the locations of lead service lines.

In addition to LCR, the agency has taken a number of actions to implement the Federal Action Plan to Reduce Childhood Lead Exposure, including finalizing the Use of Lead Free Pipes, Fittings, Fixtures, Solder, and Flux for Drinking Water Rule to significantly limit the lead content allowed in plumbing materials (e.g., pipes, fittings, and fixtures); providing grant funding to reduce

lead in disadvantaged communities and schools; and prioritizing projects that reduce exposure to lead under the innovative WIFIA financing program.



Additional Priorities

Water Reuse

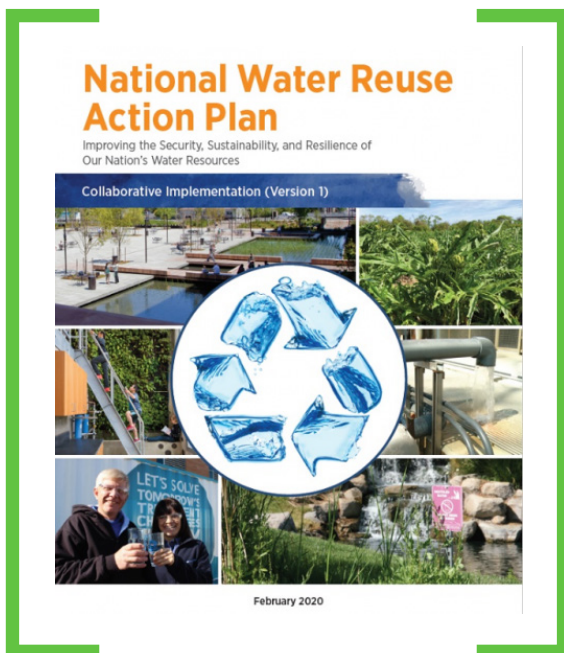
Safe and reliable water supplies for human consumption, agriculture, business, industry, recreation, and healthy ecosystems are critical to our nation's communities and economy. Due to various pressures, 40 U.S. states anticipate freshwater shortages within their borders in the next decade. Water reuse (also known as water recycling or reclamation) is a powerful option to enhance the availability and effective use of our nation's water resources.

In February 2020, Administrator Wheeler, joined by federal, state, tribal, and water sector partners, announced the release of the National Water Reuse Action Plan (WRAP): Collaborative Implementation. The Action Plan supports the Presidential Memorandum on Promoting the Reliable Supply and Delivery of Water in the West and will help advance water reuse technology that has the potential to ensure the viability of our water economy for generations to come.

With 37 actions and over 200 implementation milestones across 11 strategic themes, the WRAP adopts a proactive approach to strengthening the security, sustainability, and resilience of our nation's water resources. The actions are led by 29 unique action leaders and over 80 collaborating partners across the water sector dedicated to action implementation. Since the WRAP's release, action leaders and partners

have collectively completed 115 milestones and ongoing activities have translated to nearly 600 action updates.

The WRAP continues to grow and adopt new actions that address challenges and barriers and fulfill state, tribal, and water sector needs related to water reuse. EPA highlights implementation progress through the WRAP Online Platform, which reflects the current status of each action. WRAP quarterly updates showcase expeditious and meaningful advancements that leaders and partners have made to further the consideration of water reuse.



Water Sector Workforce

On October 5, 2020, EPA announced the next step in the agency's effort to help address workforce challenges faced by America's drinking water and wastewater utilities. EPA's America's Water Sector Workforce Initiative (Initiative) outlines actions that the public and private sector are committing to that will help recruit and retain the next generation of the water workforce through workforce planning, technology training, and collaboration across the federal government and the water sector. These actions will support workforce resiliency for water utilities and help ensure that Americans can continue relying on safe drinking water and the vital wastewater services that protect public health and the environment.

Working with federal agencies and state, local, and tribal partners, the Initiative will highlight the vital work of the water workforce and serve as a catalyst to encourage the choice of water careers through education and public outreach. The Initiative reflects the Trump EPA's commitment to ensuring that our water workforce is prepared to help meet 21st century water demands while operating and maintaining our nation's critical water infrastructure investments. The Initiative includes three goals: (1) provide federal leadership to create national momentum and coordinate efforts, (2) partner to build the water workforce of the future, and (3) bolster education and outreach to make water a career of choice.

EPA is collaborating with several agencies – including the U.S. Department of Labor, USDA, U.S. Department of Education, U.S. Department of Veterans Affairs, and Bureau of Indian Affairs – to coordinate expertise and resources through the Initiative. EPA will also continue to work with other essential partners across the water sector, including states and tribes, utilities and associations, and technical assistance providers.

Reducing Excess Nutrients in the Nation's Waters

Excess nutrients can lead to challenging environmental problems in surface waters, including algae blooms, hypoxic zones, and other water quality concerns. Under the Trump Administration, EPA is focusing its attention on reducing nutrient losses through traditional approaches – including the first update in almost 20 years to water quality criteria recommendations for nutrients in lakes and reservoirs – and enhanced federal and state coordination, stakeholder engagement and the use of market-, incentive-, and community-based programs.

Market-based and community-based programs, such as water quality trading, have a long history of being used in the water sector to enable point sources, such as publicly owned treatment works, to meet applicable water quality-based effluent limitations by more cost-effective means. Market-based approaches may also foster stronger working relationships between point and non-point source dischargers, and local governments

by encouraging cooperation to reduce excess nutrients in waters.

EPA began modernizing its approach to market-based programs, identifying six market-based principles in its February 2019 Memorandum titled Updating the Environmental Protection Agency's Water Quality Trading Policy to Promote Market-Based Mechanisms for Improving Water Quality. Subsequently, in September 2019, EPA began to build out policy options around one of the principles in the February 2019 Memorandum titled Incorporating Flexibility into Baseline Concepts. The notice proposed several policy options, solicited comment on those options, and explained how existing regulatory tools, including variances and compliance schedules, can be used to facilitate compliance with effluent limitations in market-based programs.

EPA has also developed technical guidance on implementing trading programs on a watershed scale and has been developing a proposed a regulation to clarify that National Pollutant Discharge Elimination System permitting authorities are authorized under the CWA to use market-based approaches, such as water quality trading, in permit conditions to meet applicable water quality-based effluent limitations.

Additionally, EPA issued revised ambient water quality criteria recommendations under the CWA for nutrients in lakes and reservoirs as part of the agency's ongoing efforts to support states and authorized tribes in adopting numeric nutrient criteria into their water quality standards to protect their designated uses from the harmful effects of nutrient pollution. EPA published the draft criteria recommendations in Spring 2020 and intends to publish final criteria by early 2021. These recommendations replace EPA's previously recommended ambient nutrient criteria for lakes and reservoirs that were published in 2000 and 2001. Using statistical stressor-response relationships that incorporate data collected from approximately 1,800 lakes, these criteria recommendations represent the latest scientific knowledge regarding the concentrations of nitrogen and phosphorus that are protective of drinking water sources, recreational uses,

and aquatic life in lakes and reservoirs. EPA developed national statistical models that provide a flexible approach for identifying appropriately protective numeric nutrient criteria. States and authorized tribes can incorporate local data into the national models to help develop numeric nutrient criteria that are consistent with national relationships while accounting for unique local conditions. EPA stands ready to assist states and authorized tribes to add their data into the models through the Nutrient Scientific Technical Exchange Partnership & Support program.

Water Subcabinet

On October 13, 2020, President Trump signed an Executive Order 13956 "Modernizing America's Water Resource Management and Water Infrastructure." This historic action ensures federal coordination on water policy is standard practice, now and into the future, by formally establishing a Water Subcabinet (WSC) of senior Federal agency officials to facilitate efficient and effective management and modernization of our water supplies and systems while also eliminating duplication between agencies.

President Trump's WSC consists of six agencies that collectively manage and direct our nation's water resources. Represented by agency officials at the assistant secretary and administrator-level, the WSC is directed to coordinate and collaborate on cross-cutting issues impacting water supply, water quality, water infrastructure, water forecasting, flood control, and water sector workforce, among other critical topics. EPA co-chairs the WSC with DOI.

The WSC Executive Order also includes directives to promote integrating planning, accelerate market-based mechanisms to achieve positive environmental outcomes, ensure water reuse's role in meeting the needs of the 21st century water economy, improve geospatial mapping tools of the nation's water resources, and a variety of other directives that will ensure EPA's mission of protecting public health and the environment is coordinated with the major federal agencies with water equity and investment capacity.

Hypoxia Task Force

EPA has promoted public-private collaboration by providing strong leadership in the Gulf of Mexico Hypoxia Task Force (HTF), which is comprised of five federal agencies (that are also members of the WSC) and officials from 12 states. The HTF engages with public and private partners to improve water quality throughout the Mississippi River Basin and reduce the oxygen-deprived “dead” zone in the Gulf of Mexico.

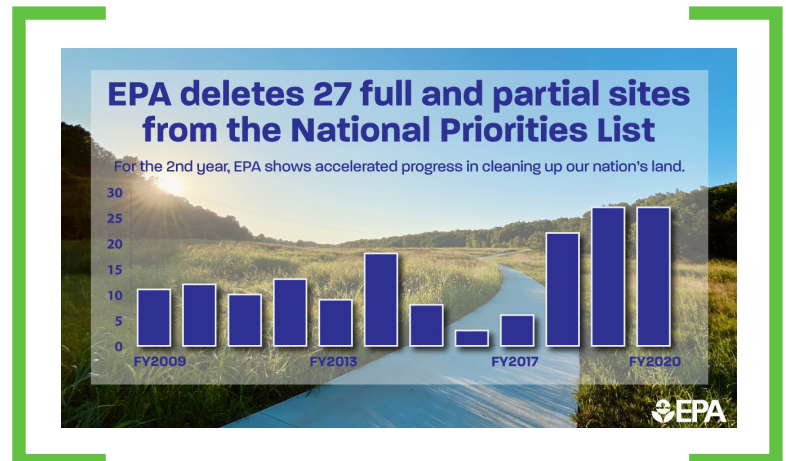
Building on a rich federal-state dialogue started at a WSC Nutrient Roundtable in May 2019, EPA helped convene seven new HTF workgroups in February 2020, made up of federal and state HTF members. The workgroups were charged to make progress on issues that HTF states identified as most important to helping them make progress on their nutrient reduction strategies, including critical research needs and support for adoption of innovative conservation practices. Additionally, in September 2020, EPA gave presentations on opportunities for the HTF states to use traditional EPA funding, (e.g., CWA Section 319 grants and SRFs) to support market-based programs that help further reduce excess nutrients in surface water, including the use of 319 funds to purchase verified water quality credits.

Working with the HTF’s communications workgroup, EPA also led the effort to institutionalize strong stakeholder education and public awareness efforts to showcase ongoing state efforts to reduce excess nutrients. For example, EPA issued a quarterly newsletter to spotlight state successes and published a web-based story map of 28 successful state efforts. In 2019 and 2020, EPA also provided targeted and flexible funding to the Task Force states to help them implement their nutrient reduction strategies in ways that work best for each state to catalyze stakeholder effort in their communities.



Superfund

Under President Trump, we have reinvigorated EPA’s Superfund program, which celebrated its 40th anniversary this year, by prioritizing cleaning up America’s most contaminated sites and bringing them back into productive use. Over the last four fiscal years, EPA has fully or partially deleted 82 sites from the National Priorities List (NPL)—matching the site total over two terms of the previous administration. For the second consecutive year, EPA deleted all or part of 27 sites from the NPL in Fiscal Year (FY) 2020, which was the largest number of deletions in a single year since FY 2001. This represents the fourth year in a row that EPA has significantly increased the number of sites deleted from the NPL, helping communities move forward in reusing and redeveloping the land by making it clear that cleanup is complete.



In FY 2020, recognizing that only EPA can delete a site from the NPL, EPA employees initiated a project to evaluate and improve the deletion process. The result of this initiative is consolidation of the rulemaking process to streamline the administrative steps involved in deleting sites from the NPL, which has been an obstacle to completing site deletions. Going forward, this improvement is expected to reduce workloads, shorten process lead times, and lower program costs, resulting in sites ready for deletion being deleted rather than being caught in a burdensome administrative process.

EPA deletes sites or parts of sites from the NPL when no further cleanup is required to protect human health or the environment. While EPA encourages site reuse throughout the cleanup process, deletions from the NPL can help revitalize communities and promote economic growth by signaling to potential developers and financial institutions that cleanup is complete.

The agency's FY 2020 deletions include 14 full sites and parts of 13 sites.

Fully Deleted Sites from the NPL:

1. FMC Corp. (Dublin Road Landfill), Town of Shelby, New York
2. Hormigas Ground Water Plume, Caguas, Puerto Rico
3. First Piedmont Corp. Rock Quarry (Route 719), Pittsylvania County, Virginia
4. Fairfax St. Wood Treaters, Jacksonville, Florida
5. Red Panther Chemical Company, Clarksdale, Mississippi
6. Dupage County Landfill/Blackwell Forest, Warrenville, Illinois
7. Fridley Commons Park Well Field, Fridley, Minnesota
8. Scrap Processing Co., Inc., Medford, Wisconsin
9. Cimarron Mining Corp., Carrizozo, New Mexico
10. Tulsa Fuel and Manufacturing, Collinsville, Oklahoma
11. Annapolis Lead Mine, Annapolis, Missouri
12. JASCO Chemical Corp., Mountain View, California
13. American Crossarm & Conduit Co., Chehalis, Washington
14. Northside Landfill, Spokane, Washington

Partially Deleted Sites from the NPL:

1. Industri-Plex, Woburn, Massachusetts
2. Macalloy Corp., Charleston, South Carolina
3. Redstone Arsenal U.S. Army/NASA, Huntsville, Alabama
4. Allied Chemical & Ironton Coke, Ironton, Ohio
5. Douglass Road/Uniroyal Inc., Landfill Mishawaka, Indiana
6. Fort Wayne Reduction Dump, Fort Wayne,

Indiana

7. Southeast Rockford Ground Water Contamination, Rockford, Illinois
8. U.S. Smelter and Lead Refinery, Inc., East Chicago, Indiana
9. Omaha Lead, Omaha, Nebraska
10. Anaconda Co. Smelter, Anaconda, Montana
11. Idaho Pole, Co., Bozeman, Montana
12. Libby Asbestos Site, Libby, Montana
13. Queen City Farms, Maple Valley, Washington



The Macalloy Corp Superfund site in Charleston, South Carolina was partially deleted in FY 2020 and holds economic opportunities for future redevelopment.

Administrator Emphasis List

EPA released the eighth, ninth, and tenth updates to the Administrator's Emphasis List (AEL) of Superfund sites targeted for immediate, intense action. The list makes visible EPA's commitment to facilitating progress at Superfund sites by resolving longstanding issues at cleanup projects across the country. The valuable management tool has repeatedly demonstrated efficacy in helping sites that have been challenged to overcome hurdles, in some cases for many years, clear those hurdles and move forward. The list is comprised of sites identified by EPA regional offices that will benefit from the administrator's immediate attention or action to move site cleanups forward and meet milestones.

Since the creation of the AEL in 2017, 20 sites have been removed from the list after achieving critical milestones that furthered site cleanup or solved issues slowing the pace of cleanups. This year's updates included:

- The Carter Carburetor Site in St. Louis, Missouri—a long-abandoned factory that was a blight on the inner-city neighborhood — has been remediated and will be handed over to the Boys & Girls Clubs of Greater St. Louis, which operates a club next door. The Gateway PGA Reach Foundation will help with the redevelopment and aims to start an academy there, which — in addition to golf activities — will provide after-school resources, mentoring, and “a path to college education,” for neighborhood youth.
- The USS Lead site in East Chicago, Indiana is a formerly heavy industrial area that is now a mostly residential and commercial area. Cleanup of lead and other contaminants was completed for many residential properties with 671 mostly residential properties recently deleted from the NPL. Other areas undergoing cleanup are primed for redevelopment.
- Petroleum Products in Pembroke Park, Florida had once been a used oil processing facility where large quantities of contaminated used oil and an estimated 50,0000 cubic yards of contaminated oily sludge was disposed of just above an aquifer that is the source of drinking water for nearby communities. Prior remedial approaches over the last 20 years were unable to remove most of the contamination, but with the focus of the AEL, EPA has proposed a remedial plan that will finally be able to remove the sludge and protect this vital drinking water source.

EPA monitors sites removed from the list to ensure that significant progress continues and cleanups move towards completion. One example is the Madison County Anschutz Mine site in Fredericktown, Missouri, where implementation of the property-wide cleanup of historical, surficial mine waste contamination is underway. Since the site was removed from the AEL, the site’s lessee, Missouri Cobalt, has completed construction of its tailings reprocessing facility on the site and started recovering metals from on-site waste mine tailings, creating new jobs in the area.

CERCLA Section 108(b)

In 2020, under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 108(b), EPA finalized its rulemakings on financial responsibility requirements for the Electric Power Generation, Transmission and Distribution; Petroleum and Coal Products Manufacturing; and Chemical Manufacturing industries. Following a detailed analysis of the financial risk to the federal Superfund program, EPA determined no new financial assurance requirements were merited for production, transportation, treatment, storage, or disposal of hazardous substances in these industries. This included evaluating the history of cleanups under Superfund, modern industry practices, applicable federal and state regulations, the industries’ financial health and economic trends, and the risk of taxpayer-funded cleanups of facilities in these industries. This is consistent with EPA’s interpretation of the statute, which was unanimously upheld by the D.C. Circuit Court of Appeals in litigation challenging the agency’s hardrock mining final action not requiring additional financial assurance. EPA’s final rulemakings do not remove any existing requirements; rather they do not impose additional, new requirements.

Section 108(b) of CERCLA addresses potential requirements for financial responsibility to cover the costs associated with cleaning up releases or threatened releases of hazardous substances from facilities. In the 40 years since CERCLA became law, other state and federal requirements have been promulgated, so EPA has not needed to use this statutory authority to impose additional financial assurance requirements on classes of facilities to address the potential risk of releases of hazardous substances.

Office of Mountains, Deserts and Plains

In September, Deputy Associate Administrator Doug Benevento and Assistant Administrator for the Office of Land and Emergency Management (OLEM) Peter Wright joined Region 8 Administrator Greg Sopkin in announcing the Office of Mountains, Deserts and Plains at the Western Museum of Mining and Industry in Colorado Springs, Colorado.



EPA established the Office of Mountains, Deserts and Plains to assume oversight responsibilities for federal hardrock mining cleanup sites west of the Mississippi River; serve as a central contact for other federal agencies, states and tribes with responsibility for or impacted by these sites; and develop innovative technologies and adaptive management approaches to address legacy pollution. The office reports to the Assistant Administrator for Land and Emergency Management in Washington, D.C., but the office is located in Denver, Colorado. Additionally, the office supports efforts of conservation organizations to voluntarily undertake projects to improve conditions at abandoned mines (Good Samaritan projects).

Born out of lessons learned at sites across the country such as the Bonita Peak Mining District in Colorado and Silver Bow Creek Superfund site in Butte, Montana, EPA developed this new office to focus on the complex and unique issues related to hardrock mining cleanup and the communities in which they are located. The office seeks to improve EPA's ability to respond to the range of special issues and unique needs associated with Western mining sites in EPA Regions 6, 7, 8, 9, and 10. The new office will drive accountability, streamline cleanup efforts, and better facilitate coordination with states, local and tribal partners. It is the primary point of integration, communication, and coordination with federal land management agencies that oversee the federal lands where many of the current abandoned mines exist. By realigning existing resources and teaming up staff with expertise

in these distinct ecosystems, the new Office of Mountains, Deserts and Plains will accelerate positive outcomes for Western communities and the environment.

Brownfields and Opportunity Zones

Under the Trump Administration, EPA's Brownfield and Land Revitalization Program has provided approximately \$295 million directly to communities and nonprofits for cleanup and redevelopment, job creation, and economic development. These grants allow communities to leverage additional investment and provide communities with an opportunity to transform contaminated sites into community assets that attract jobs and achieve broader economic development outcomes. To date, communities participating in the Brownfields Program have been able to attract more than \$33.6 billion in cleanup and redevelopment funding after receiving Brownfields Program funds.

A brownfield is a property where the expansion, redevelopment, or reuse may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. There are estimated to be more than 450,000 brownfields in the U.S.

In May, EPA announced the selection of 155 grants for communities and tribes totaling over \$65.6 million in EPA brownfields funding through the agency's Assessment, Revolving Loan Fund, and Cleanup Grant Programs. These EPA grant programs support community revitalization in under-served and economically disadvantaged communities.

Of the communities selected this year, 118 can potentially assess or clean up brownfield sites in census tracts designated as federal Opportunity Zones. An Opportunity Zone is a designated economically distressed census tract where new private investment, under certain conditions, may be eligible for preferential tax treatment. Nearly 30 percent of the communities selected are receiving brownfields funding for the first time. The combined power of Brownfield Program funding and its ability to leverage other funding and jobs combined with Opportunity Zone

incentives have yielded impressive results in a short amount of time. Since June 1, 2018, EPA brownfields funding of just under \$29 million in Opportunity Zones has led to accomplishments at 1,255 properties, which have leveraged over \$403 million in additional funding and in excess of 1,500 jobs.

Communities that previously received brownfields grants used these resources to fund assessments and cleanups of brownfields and successfully leveraged 8.5 jobs per \$100,000 of EPA brownfield grant funds spent. This has led to over 170,724 jobs in cleanup, construction, and redevelopment.

Highlights:

In Pottstown, Pennsylvania, Administrator Wheeler announced \$6.9 million in supplemental funding for 25 current successful Brownfields Revolving Loan Fund (RLF) grantees at the former Mercury Newspaper headquarters. The RLF supplemental funds are being provided to communities that have demonstrated success in using their Revolving Loan program to clean up and redevelop brownfield sites. The funds will be used to continue their progress in reusing vacant and abandoned properties and turning them into community assets such as housing, recreation and open space, health facilities, social services, and commerce opportunities.

The supplemental funds announced went to communities including the City of Pawtucket, Rhode Island; Camden Redevelopment Agency (New Jersey); the City of New York, New York; Montgomery County, Pennsylvania; the City of Atlanta, Georgia; Indiana Finance Authority (Indiana); the City of Tulsa, Oklahoma; the City of Springfield, Missouri; Snowy Mountain Development Corporation (Montana); and Humboldt County, California, which have demonstrated success in using their RLF funds to clean up and redevelop brownfields sites. All communities receiving supplemental funds have census tracts designated as federal Opportunity Zones within their jurisdiction.

The former Mercury Newspaper site, located at the center of Pottstown, was remediated using

an RLF loan. Redevelopment of this prominent building at the center of the borough will create the first boutique hotel in the borough creating jobs and tax revenue and support the downtown's burgeoning business and entertainment venues.

Grants awarded by EPA's Brownfields Program provide communities across the country with an opportunity to transform contaminated sites into community assets that attract jobs and achieve broader economic development outcomes while taking advantage of existing infrastructure. For example, Brownfields Program grants have been shown to increase local tax revenue and residential property values.

- A study of 48 brownfields sites found that an estimated \$29 million to \$97 million in additional local tax revenue was generated in a single year after cleanup. This is two to seven times more than the \$12.4 million EPA contributed to the cleanup of these sites.
- Another study found that property values of homes near revitalized brownfields sites increased between 5 percent and 15 percent following cleanup.

Recycling



In November, Administrator Wheeler unveiled a modern, ambitious National Recycling Goal at the third annual America Recycles Day Summit to increase the national recycling rate to 50 percent by 2030. The most recent recycling data show that the national recycling rate, after being fairly stagnant for 20 years, peaked in the mid-30 percent range but dipped to 32 percent in 2018. The nation's recycling infrastructure has not kept pace with the current material stream. Just before the third annual America Recycles

Day Summit, EPA released a draft National Recycling Strategy for public input in preparation for America Recycles Week. The draft National Recycling Strategy identifies strategic objectives and actions needed to create a stronger, more resilient U.S. municipal solid waste recycling system.

The draft National Recycling Strategy was developed as part of EPA's continued leadership in addressing the challenges facing the U.S. recycling system and builds on EPA's 2019 National Framework for Advancing the U.S. Recycling System. The strategy organizes high-level actions around three strategic objectives to improve the U.S. recycling system: 1) reduce contamination, 2) increase processing efficiency, and 3) improve markets.

new construction materials from hard-to-recycle plastics; and using automated machines and recycled glass bottles from restaurants to create new glassware.



A view of the virtual lobby for the second America Recycles Innovation Fair.

Recycling is a critical component of the U.S. economy, providing approximately 700,000 jobs and \$37 billion in wages; however, stressing the system are factors such as:

- confusion about what materials can be recycled;
- recycling infrastructure that has not kept pace with today's diverse and changing waste stream;
- reduced markets for recycled materials; and
- varying methodologies to measure recycling system performance.

Strategies to achieve National Recycling Goal of 50% by 2030:

Reduce Contamination in Recycling

Reducing the percentage of the wrong materials in the recycling stream helps ensure clean recyclable materials, such as paper, glass or plastic, can be processed and made into new products.



Recognizing the importance of recycling and the great potential for improvement, Administrator Wheeler hosted the first America Recycles Day Summit on November 15, 2018. Since then, more than 250 organizations have signed the America Recycles Pledge, promising to work collaboratively to improve the American recycling system. This year in addition to the Summit, EPA hosted the second America Recycles: Innovation Fair to showcase entrepreneurs from across the recycling system online via virtual exhibit halls and demonstrate their state-of-the-art products, services, outreach, and technologies. The virtual Innovation Fair featured more than 40 exhibitors advancing recycling technology through strategies such as: deploying artificial intelligence robots to enhance operations at recycling facilities; using hard-to-recycle plastics in 3D printing materials; installing small system sorting units in stadiums and small communities; creating

Emergency Response and Natural Disasters

This year, EPA participated in and coordinated 102 emergency response removal actions that addressed the many hurricanes and wildfires that impacted the country and communities over the past year.

This year, EPA responded to Tropical Storms Marco and Laura by helping communities in the Gulf Coast area stay prepared against the threat of flooding and releases of wastewater from sanitary sewers. Together, with state and local agencies, EPA actively worked to monitor facilities that reported spills, as well as conducted outreach and provided technical guidance to all wastewater facilities in the flood-impacted areas.

EPA emergency responders from across the agency supported the efforts led by EPA Regions 9 and 10 to help communities devastated by wildfires by removing hazardous materials left

behind by the fire's destruction of homes and other structures. This is a critical first step in helping communities recover and rebuild.

For example, in eight Oregon counties devastated by fires, 17 EPA field recovery teams, working 12-hour days, seven days a week, have retrieved and removed household hazardous waste from over 2,300 fire-ravaged parcels. In addition, EPA teams stabilized and consolidated ash and debris from more than 230 parcels along Oregon waterways – including five miles of the Bear Creek riparian area in Jackson County – protecting water quality from toxic runoff. In all, EPA mobilized over 250 responders, both virtually and in the field, from all over the country to support response operations. In California, EPA-led teams completed household hazardous waste removal from 2,644 properties in seven counties that experienced severe fire damage.

Waste

Coal Combustion Residuals

In 2020, EPA took action to stabilize coal ash regulations for the power-producing utilities that Americans rely on every day. These actions included proposed revisions and flexibilities to the regulations for the management of coal ash from electric utilities, increased flexibility by allowing for more site-specific management of coal ash so long as the impoundments demonstrate no reasonable probability of adverse effects to human health and the environment, and regulatory action on the closure regulations for coal ash storage that enhance protections for public health while giving electric utilities enough time to retrofit or replace unlined impoundment ponds.

In July 2020, EPA finalized several changes to the regulations for coal combustion residuals, known as CCR or coal ash, to implement the court's vacatur of certain closure requirements as well as adding provisions that enhance the public's access to information about the management of coal ash at electric utilities.

In October 2020, EPA finalized the alternate liner demonstration procedures for unlined surface impoundments of CCR, allowing for more site-

specific management of coal ash so long as the impoundments demonstrate no reasonable probability of adverse effects to the human health and the environment.

Following the approval of the first-in-the-nation state coal ash permitting program for Oklahoma in 2018 and the second for Georgia in 2019, EPA proposed a streamlined, efficient, federal permitting program for the disposal of CCR. Additionally, EPA has proposed approval of the State of Texas's permit program for the management of CCR in landfills and surface impoundments this year. If finalized, it will make Texas the third state in the nation with an approved coal ash permit program.

Reducing Food Waste

In 2020, EPA worked to build upon past success in garnering attention to address food loss and waste. EPA has taken significant steps to highlight the need to reduce food waste nationally. In October 2018 and December 2020, EPA, the U.S. Food and Drug Administration (FDA), and USDA signed a formal agreement to align efforts across the federal government to educate consumers, engage stakeholders, and develop and evaluate solutions to food loss and waste. In May 2020, the agencies updated the federal interagency strategy by listing contributing efforts in each of the priority action areas.

1. Priority Area 1: Enhance Interagency Coordination
2. Priority Area 2: Increase Consumer Education and Outreach Efforts
3. Priority Area 3: Improve Coordination and Guidance on Food Loss and Waste Measurement
4. Priority Area 4: Clarify and Communicate Information on Food Safety, Food Date Labels, and Food Donations
5. Priority Area 5: Collaborate with Private Industry to Reduce Food Loss and Waste Across the Supply Chain
6. Priority Area 6: Encourage Food Waste Reduction by Federal Agencies in their Respective Facilities

EPA and USDA 2030 Food Loss and Waste Champions

In 2020, the EPA and USDA welcomed 10 new businesses and organizations to the 2030 Champions. Champions have made the commitment to reduce food loss and waste by 50 percent in their own operations by 2030. The list of 2030 Champions includes Ahold Delhaize, Amazon, Aramark, Blue Apron, Bon Appetit, Browns Superstores, Campbells, Compass Group, ConAgra, Farmstead, General Mills, Giant Eagle, Hello Fresh, Hilton, Kellogg's, Kroger, Las Vegas Sands, Marley Spoon, Meijer, MGM Resorts, Mom's Organic Market, PepsiCo, Sodexo, Sprouts, The Wendy's Company, UNFI, Unilever, Walmart, Walt Disney World, Wegmans, Weis, Whitsons, and Yum! Brands.



Administrator Wheeler visits the food waste reduction operations at Three Square Bank with MGM officials.

Administrator Wheeler also went on several food waste related tours in 2020. In January, he traveled to MGM's Aria Resort in Las Vegas to see their food loss and waste prevention measures in place. He then toured Three Square Food Bank's facilities after receiving an overview of how the food bank reuses and repurposes food donations from MGM. In October, he toured Walt Disney World Resort and discussed with their team how industry leaders can help the public significantly reduce their food waste footprint.

In 2019, Administrator Wheeler toured the FreshDirect facility, one of the east coast's largest online grocery stores, and later participated in a U.S.-New York City Food Waste Reduction Roundtable discussion with CEOs and other leaders from EPA Region 2, City Harvest, ReFED

and PepsiCo, a U.S. Food Loss and Waste 2030 Champion. While in the Big Apple, Administrator Wheeler also joined Syd Mandelbaum with the Rock and Wrap It Up! organization to serve lunch to local residents at Woodycrest United Methodist Church with food diverted from nearby Yankee Stadium. Rock and Wrap It Up! is an EPA 2018 Food Recovery Challenge regional award winner and has received this award for several years running.

In addition to U.S. Food Loss and Waste 2030 Champions, EPA has engaged with local, tribal, and territorial governments interested in making a commitment to food waste reduction by signing the agency's Reducing Food Waste pledge.

Pledge signers include: Arkansas Department of Energy and Environment, Division of Environmental Quality; Association of State and Territorial Solid Waste Management Officials; City of Baltimore, Maryland; City of Burnsville, Minnesota; City of Greensburg, Kansas; City of Orlando, Florida; City of Philadelphia, Department of Prisons; Delaware Department of Agriculture; Florida Department of Agriculture and Consumer Services; Iowa Department of Natural Resources; Iowa Waste Reduction Center; Jackson County, Mississippi; Jefferson County, Colorado; Jefferson County, Texas; Kentucky Department of Agriculture; Kentucky Department of Environmental Protection; Louisiana Department of Environmental Quality; Maine Department of Environmental Protection; Maryland Department of the Environment; Minnesota Pollution Control Agency; Missouri Department of National Resources; Montgomery County, Maryland; National Association of State Departments of Agriculture; National League of Cities; North Carolina Department of Environmental Quality; Nebraska Department of Environmental Quality; New Mexico Department of Agriculture; New Mexico Environment Department; Oklahoma Department of Environmental Quality; Oregon Department of

Environmental Quality; Ramsey County, Minnesota; Rhode Island Department of Environmental Management; Town of Auburn, New Hampshire; U.S. Conference of Mayors; and Washington Department of Ecology.

THE PLEDGE: We, the undersigned governmental organizations, pledge to work together with our federal partners to build upon new or existing efforts to address food loss and waste in the United States. Our signatures indicate the interest and willingness of our governmental organizations to participate in ongoing dialogue to identify specific actions we can take collectively and within our respective organizations to reduce food waste nationally.



CHEMICALS

Accelerating Progress on Chemical Safety

Since Day 1 of the Trump Administration, EPA has continued aggressive implementation of the 2016 Frank R. Lautenberg Chemical Safety for the 21st Century Act, which amended the Toxic Substances Control Act (TSCA). Over the past four years, the agency has set up the processes, policies, and resources to review the over 41,000 existing chemicals in the marketplace and any new chemicals that companies want to bring to market. Through tireless efforts of expert career staff, the agency has taken the necessary time to do this work in a way that increases transparency, produces high-quality assessments using sound science, and ensures that Americans are protected from unreasonable risks. This work will benefit public health and the environment and facilitate innovation in chemistry for years to come.

Finalizing the Risk Evaluations for the First 10 High Priority Chemicals

Under TSCA, EPA is required to evaluate the risks associated with exposure to existing chemicals in commerce, using the best available science, then take action to address any unreasonable risks identified. In 2016, EPA published a list of the first 10 chemical substances that are the subject of the agency's initial risk evaluations under amended TSCA. EPA released the scope documents for these 10 risk evaluations in 2017, the problem formulation documents in 2018, and started releasing draft risk evaluations for the chemicals in November 2018. By the end of the term, EPA issued the final risk evaluations for all ten chemicals (1-Bromopropane, Carbon Tetrachloride, Cyclic Aliphatic Bromide Cluster, Methylene Chloride, Trichlorethylene, Asbestos, Part 1:Chrysotile Asbestos, 1,4-dioxane, N-Methylpyrrolidone, Perchloroethylene, and Pigment Violet 29).

Ensuring Scientific Rigor and Enhancing Transparency of the Risk Evaluation Process

In 2020, the TSCA Science Advisory Committee on Chemicals (SACC) held four meetings to provide EPA with an independent review of the science underlying the agency's draft risk evaluations for the first 10 high priority chemicals. EPA is using the scientific advice, information and recommendations from the SACC, as well as public comments, to inform the final risk evaluations.

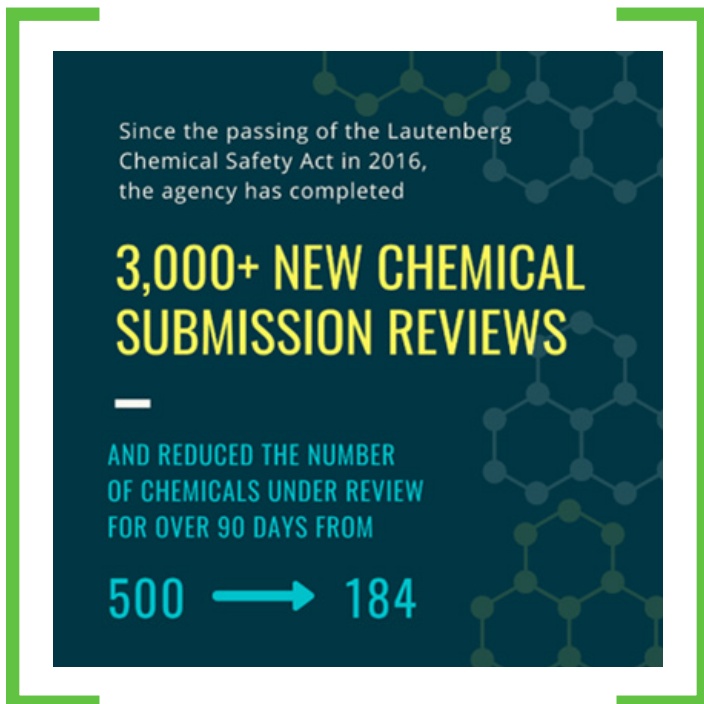
Started Risk Management for Final Risk Evaluations

In September, EPA kicked off a robust engagement and outreach effort on ways to address unreasonable risks identified in the agency's final TSCA chemical risk evaluations. EPA hosted public webinars, engaged with businesses of all sizes, and consulted with tribal and environmental justice communities about risk management for the final risk evaluations issued so far.

Reduced the Backlog of New Chemicals Reviews

In January 2017, the backlog of chemicals under review for greater than 90 days had grown to over 500. Since that time, EPA has put policies

and procedures in place to reduce the number of chemicals under review for over 90 days to 184 while completing the review of more than 3,000 new chemical submissions.



Initiating the Risk Evaluation Process for the Next 20 High Priority Chemicals

In December 2019, EPA announced the list of the next 20 chemical substances to undergo risk evaluation under TSCA. EPA released the scope documents for these 20 risk evaluations in September 2020 and anticipates issuing the problem formulation documents in 2021.

Exercising Agency's First Ever Use of New of Test Order Authority

The Lautenberg Act amendments to TSCA expanded the agency's authority to require the development of new information on chemicals via issuance of Section 4 Test Orders. In 2020, EPA exercised this authority for the first time ever by issuing test orders to obtain additional data on PV-29 and on nine of the next 20 chemicals undergoing risk evaluation. The information obtained through these orders will help ensure EPA's risk evaluations for these chemicals are robust, credible, and use the best available data.

Designating First 20 Low Priority Chemicals

In February, EPA published a list of 20 chemical substances identified as low priority, meaning

that risk evaluations are not warranted at this time for these chemicals. This action is the result of a rigorous, transparent, and scientifically sound process to ensure chemicals in commerce do not pose unreasonable risks. This final list of low-priority chemicals will allow EPA to focus its risk evaluation efforts on the chemicals that could significantly impact public health and the environment.

Proposed Revisions to TSCA Fees Rule to Increase Flexibility and Reduce Burden

In December, EPA issued proposed revisions to the TSCA fees rule by the end of 2020. The revisions will narrow the broad scope of current requirements, significantly reducing burden on potentially thousands of companies while increasing flexibility for businesses subject to TSCA fees. The proposal is the product of open, transparent dialog with stakeholders and ensures EPA's TSCA program continues to protect public health and the environment without causing unnecessary burden on American businesses.

Hiring Critically Needed Scientists

In an effort to ensure that the agency has the necessary scientific expertise for the TSCA and pesticide risk assessment program, the Office of Chemical Safety and Pollution Prevention (OCSPP) hired 18 scientists to support TSCA implementation efforts and 17 scientists to support its pesticides work at OCSPP's first-ever established presence in Research Triangle Park, North Carolina. In addition, OCSPP's Office of Pollution Prevention and Toxics is undertaking an aggressive effort to compete and fill more than 50 existing positions over the next year to deliver on our important statutory mandates.

Celebrating 30 Years of Preventing Pollution

In November, EPA celebrated the 30th anniversary of the Pollution Prevention (P2) Act. The Act gave the agency new tools to join with states, tribes, and communities to prevent pollution before it happens. It also marked a shift in the paradigm of environmental protection, which had been mostly focused on end-of-pipe pollution control and clean-up strategies. One of the Act's most impactful and collaborative programs is EPA's P2 Grants Program. Through

the 2020 Pollution Prevention (P2) and Source Reduction Award (SRA) grants, EPA has formed innovative partnerships and collaborations that enable the agency to prevent pollution before it begins.

P2 grants provide technical assistance to awardees working to reduce or eliminate pollutants from entering any waste stream or otherwise being released into the environment prior to recycling, treatment, or disposal. In September, EPA awarded approximately \$9.3 million to 42 organizations (including states, academic institutions, and federally recognized tribes) in 39 states, supporting pollution prevention across the country.

SRA grants fund innovative, cost-effective, replicable source reduction approaches, enabling grant recipients and others to save energy and water, reduce pollution, and improve public health. In November, EPA awarded 11 organizations across nine states \$1.16 million in grant funding to support pollution prevention activities.

EPA Published 2019 Annual Toxics Release Inventory

In January 2021 EPA released its 2019 Toxics Release Inventory (TRI) National Analysis, which showed that between 2018 and 2019 total releases of TRI chemicals decreased by 9 percent — proof that economic growth and an improved environment can go hand in hand. Other notable trends included for the first time in five years, industrial and federal facilities reported an increased number of new source reduction activities that aim to reduce or eliminate the amount of chemical-containing waste facilities create. Facilities also avoided releasing 89 percent of the chemical-containing waste they created and managed during 2019 into the environment by using preferred practices such as recycling, treatment, and energy recovery.

Addressing Persistent, Bioaccumulative, and Toxic Chemicals

In December, EPA finalized five rules to reduce exposures to certain chemicals that are persistent, bioaccumulative and toxic (PBT).

These chemicals build up in the environment over time and can therefore have potential risks for exposed populations. Under EPA's final rules, the agency will restrict or prohibit manufacture (including import), processing, and distribution in commerce for many uses of four PBT chemicals, and institute a ban on intentional uses of five chemicals.

Providing Growers with Tools and Certainty

Innovation in agricultural tools is critical to a healthy environment, healthy workers, and vibrant crops. In 2020, EPA registered 16 new active ingredients many of which were classified as lower risk biopesticides, one new import tolerance, 163 new uses of existing pesticides, and the agency e-registered over 50 existing pesticides products. Many of these are providing additional tools to help growers meet their pest management needs as well as advancing the best available scientific support for the agency's work.

In addition, EPA registered several new and innovative products to meet critical pest management needs. One such product is Nootkatone, which was registered in partnership with the CDC in August. A new active ingredient responsible for the characteristic smell and taste of grapefruit, Nootkatone is used to develop new insect repellents and insecticides. Additionally, in September, EPA approved two new products that contain a new active ingredient called *Pseudomonas fluorescens* strain ACK55. These products can be used for targeted application on invasive, noxious grasses often associated with wildfires.

In October, EPA approved new five-year registrations for two dicamba products and extended the registration of an additional dicamba product. All three registrations include new control measures to ensure these products can be used effectively while protecting the environment, including non-target plants, animals, and other crops not tolerant to dicamba. These registrations are only for use on dicamba-tolerant cotton and soybeans and will expire in 2025, providing certainty to American agriculture for the upcoming growing season and beyond.



Administrator Wheeler announces the agency's 2020 registration decision for dicamba at a farm in Georgia.

Advancing Biotechnology in Agriculture

Under President Trump's Executive Order on Modernizing the Regulatory Framework for Agricultural Biotechnology Products, EPA, in coordination with USDA and FDA, launched a unified website in January that provides a one-stop-shop for information about the actions the federal government is taking to oversee the development of agricultural biotechnology products. In September, EPA released a draft proposal to improve current insect resistance management strategies for pests affecting *Bacillus thuringiensis* (Bt) corn and cotton plant-incorporated protectants (PIPs). This draft proposal seeks input on an Integrated Risk Management framework that could help farmers prolong the durability of Bt PIPs from pests.

Additionally, in September, EPA continued to remove barriers to biotechnology innovation by proposing exemptions under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Food, Drug, and Cosmetic Act for certain PIPs created through biotechnology. PIPs are pesticidal substances produced by plants and the genetic material necessary for the plant to produce the pesticidal substance. EPA's proposed exemptions for PIPs created through biotechnology seek to facilitate the development of new tools for American farmers to protect their crops and control agricultural pests. By reducing antiquated regulations that restrict access to the market for biotechnology products, science-based innovations to agriculture will become far more accessible to American farmers.

In November, EPA released updated draft guidance for plant biostimulants for a second round of public comment. Plant biostimulants are a relatively new but growing category of products containing naturally occurring substances and microbes. Their increasing popularity arises from their ability to enhance agricultural productivity through stimulation of natural plant processes using substances and microbes already present in the environment. Plant biostimulants can also reduce the use of synthetic chemical fertilizers, making it an attractive option for sustainable agriculture and integrated pest management programs. When finalized, EPA's Plant Biostimulants Guidance will provide sought-after certainty and transparency for this growing area of the economy.



OCSPP Assistant Administrator Alex Dunn with a cotton farmer in Georgia in 2020.

Improving the Endangered Species Act Process for Pesticides

In March, EPA announced improved methods for conducting biological evaluations under the Endangered Species Act to assure that pesticide registration review actions under FIFRA do not jeopardize endangered species. The methods were developed with dedicated collaboration from USDA, DOI, U.S. Department of Commerce's National Marine Fisheries Services, and CEQ. The updated methods ensure that – when available – the agency will use high-quality historical data that reflects where and how certain pesticides are used. The revised method will better protect and promote the recovery of endangered species while ensuring pesticide registration review decisions are conducted in a timely, transparent manner and based on the best available science. EPA released the draft biological evaluations for

the triazines, methomyl, carbaryl, and glyphosate this year, applying the new methods.

Improving Worker Safety

In October, EPA finalized improvements to requirements for the pesticide application exclusion zone (AEZ), the area surrounding pesticide application equipment that exists only during outdoor production pesticide applications. EPA's targeted changes improve the enforceability and workability of the AEZ requirements, decrease regulatory burdens for farmers, and maintain critical worker protections.

In November, EPA announced the selection of the Association of Farmworker Opportunity Programs (AFOP) to receive up to \$500,000 annually to conduct pesticide safety training across the country over the next five years. With EPA funding, AFOP will administer this grant to provide occupational health and safety trainings to migrant and seasonal farmworkers in more than 25 states through a network of over 200 trainers.

Increased Outreach on Importance of Pollinator Protection

In 2020, Administrator Wheeler signed a proclamation designating the week of June 22 as National Pollinator Week, the first such proclamation in 50-year history of the agency.

During this week, the agency also renewed its memorandum of understanding (MOU) with the Pollinator Partnership, a nonprofit organization that facilitates actions that benefit pollinator habitats. Later in the year, the agency kicked off a popular webinar series regarding ongoing work to promote pollinator health and habitat that reached over 2,100 attendees. Finally, in September, EPA co-hosted the Pollinator State of Science Workshop webinar with the USDA. The goal of the webinar was to identify outcome-based strategies to mitigate the potential impact of multiple stressors influencing pollinator declines. Participants, representing a wide range of stakeholders, discussed USDA research to identify ways to improve pollinator health through collaborative efforts across a wide range of government, industry, growers, academia, and other stakeholders.



Advancing Sustainable Pest Control in Agriculture

In January 2021, Administrator Wheeler announced a new \$2 million dollar initiative that encourages smart, sensible, and sustainable pest control in agriculture. The initiative, which is an extension of EPA's Pesticide Environmental Stewardship Program (PESP), expects to award grantees up to \$200,000 to implement sustainable pest management practices.



ENFORCEMENT

Over the last four years, EPA has focused on priority environmental risks and non-compliance issues to address the most egregious violations and ensure that the regulated community understands and complies with the law. Using all of its tools, EPA has taken actions that meaningfully increase compliance with environmental laws and deter noncompliance.

From 2017 to 2020 EPA's enforcement and compliance and assurance actions resulted in:

- over \$5.7 billion in combined civil penalties, criminal fines, and restitution collected;
- voluntary disclosure and certified correction of violations at over 5,300 facilities;
- investment of \$32.27 billion in actions and equipment that achieve compliance with the law and control pollution;

- 661 criminal cases opened;
- 486 criminal defendants charged;
- commitments of \$2.9 billion for new site cleanup work and more than \$572 million in reimbursement of EPA's costs, as well as collection of more than \$399 million in oversight costs; and
- advancement of cleanup and redevelopment at over 415 sites through use of Superfund enforcement tools.

EPA achieved these results by:

- aligning its enforcement and compliance resources with the Agency's Strategic Plan, through National Compliance Initiatives (NCIs);
- enhancing shared accountability between the EPA and states with authorized environmental programs;
- expanding enforcement and compliance assurance tools;
- reinvigorating the Superfund Enforcement Program;
- improving oversight and management of EPA's enforcement and compliance assurance programs;
- improving design and management of sewer overflow consent decrees; and
- adeptly responding to new situations, like the COVID-19 public health emergency, throughout EPA's enforcement and compliance assurance programs.

In FY 2020, EPA:

- Protected the public from air pollution by:
 - resolving 31 civil tampering and aftermarket defeat device cases, more than in any prior year in the agency's history;
 - preventing 18.2 million pounds of pollutants from entering the air by preventing, reducing, treating, or eliminating emissions from vehicle and engine air sources;
 - reducing emissions of nearly 27 million pounds of volatile organic compounds (VOCs) through the Creating Cleaner Air for Communities NCI; and
 - reducing emissions of over 2.8 million pounds of hazardous air pollutants

through the Creating Cleaner Air for Communities NCI.

- Protected water quality by reducing the quarterly rate of significant non-compliance with Clean Water Act discharge permits to 16.4 percent, continuing progress towards cutting the significant non-compliance rate in half by FY 2022.
- Protected communities from chemical management risks by resolving 169 cases to correct noncompliance with EPA's Risk Management Program.
- Resolved priority violations at 3,177 drinking water systems, including protecting users of drinking water systems in Indian Country by taking four enforcement and compliance assistance actions against the Bureau of Indian Affairs and the Indian Public Health Service.
- Gave hope to communities burdened by toxic waste by securing commitments from responsible parties to perform or fund \$636 million worth of cleanup actions.

Spotlight on 2020

Vehicle Manufacturer Defeat Devices: Daimler AG and Mercedes Benz USA

On September 14, 2020, EPA, DOJ, and California announced a settlement resolving allegations that Defendants had violated the Clean Air Act and California law. Defendants will pay a \$875 million penalty (\$3,500 per vehicle); establish a recall program; perform a project to mitigate the harm to the nation's air; and implement new corporate compliance measures to discourage future cheating. The total value of the settlement is approximately \$1.5 billion - the second largest civil penalty in the history of the Clean Air Act. Daimler and Mercedes-Benz installed undisclosed software functions and defeat devices in over 250,000 vehicles. The undisclosed software functions and defeat devices cause the vehicles' emission control systems to perform differently, and less effectively, during normal driving conditions than on federal emission tests, resulting in increased emissions of oxides of nitrogen during typical vehicle operation.

Addressing VOC Emissions in Ozone Nonattainment Area: K.P. Kauffman Company

In April 2020, the EPA, DOJ and Colorado agreed to a settlement to resolve allegations that Kauffman violated the Clean Air Act and state law by emitting VOCs from its condensate storage tanks and associated vapor control systems, identified beginning in 2013. Under the terms of the settlement, Kauffman will implement pollution control measures resulting in a reduction of VOC emissions of over 400 tons per year. Additionally, the company will complete three mitigation projects that will provide additional VOC emission reductions of approximately 131 tons per year and pay a civil penalty of \$1 million, which will be split between Colorado and the United States.

Resolving Thirteen-Year Old Case: Simplot, Rock Springs, Wyoming

In July 2020, EPA settled one of the oldest cases on its docket, involving claims related to violations of RCRA by the fertilizer manufacturer, Simplot, at its Rock Springs, Wyoming facility. Under the settlement, Simplot will continue to operate and recover and reuse the phosphate content of phosphogypsum to avoid disposal in the gypstack. The settlement also provides for protective closure when operations cease and provides the financial assurance to ensure this happens. As a result of this settlement, approximately 1.6 billion pounds of waste will be properly managed.

National Compliance Initiatives (NCIs)

EPA's enforcement and compliance assurance program is now aligned with the Agency's Strategic Plan, focusing on improving air quality, providing clean and safe water, ensuring chemicals are properly managed, and protecting vulnerable communities.

By making aftermarket defeat devices a national priority, EPA is addressing a significant air pollution problem. According to a study by EPA's Air Enforcement Division of the impacts of known sales of defeat devices for diesel trucks, those

devices would result in more than 570,000 tons of excess NOx and 5,000 tons of particulate matter over the lifetime of the trucks.

By working with states to make significant noncompliance with Clean Water Act (CWA) permits a national priority, EPA has helped reenergize state CWA enforcement programs. For example, between 2017 and 2020, state formal enforcement actions increased by nearly 39 percent, and between 2017 and 2019, state inspections increased by over 25 percent.

By making safe drinking water a national priority, EPA is rebuilding its drinking water enforcement and compliance assurance program. EPA will soon have credentialed drinking water inspectors in every EPA region and is developing close working relationships with states.

Shared Accountability

Over the past four years, EPA has increased its partnerships with authorized states and tribes. In July 2019, EPA issued the Partnership Policy that ensures continuing significant cooperation between EPA and authorized states in enforcement and compliance assurance matters. As a result, all EPA regions conduct joint work planning with authorized states or tribes, notify authorized states before conducting inspections or taking enforcement action, and provide opportunities for states and tribes to participate in these activities, increasing capacity.

To improve communication of state enforcement and compliance activities, EPA is updating the state information available on Enforcement and Compliance History Online, completing updates of the Air Stationary Source Dashboard and Hazardous Waste Dashboard and working on updates of the remaining dashboards. These dashboards are important to communicate the fact that states take the vast majority of actions in authorized programs and the fallacy of focusing on EPA actions only. For example, the water dashboard shows that authorized states inspected 29,805 facilities with water discharge permits in FY 2020.

Expanded Enforcement and Compliance Assurance Tools

Over the past four years, EPA has expanded its enforcement and compliance assurance tools.

- EPA launched a Circuit Rider Program to provide technical assistance to small community wastewater and drinking water systems and tribal environmental programs. The Circuit Riders provide one-on-one coaching to small system and tribal operators.
- EPA is providing smart mobile tools for field inspectors. These tools move away from paper-based documentation to an electronic suite of tools expected to improve the quality, consistency, and timeliness of environmental field inspections.
- EPA provided guidance to consistently track off-site compliance monitoring activities. In FY 2020, EPA conducted nearly 5,000 such activities, a significant increase over all prior years.
- EPA is expanding the reach of federal and state inspection programs by working with states to develop remote video partial compliance evaluations. In April 2020, EPA established an EPA/State workgroup to explore ways to use remote video technology for our inspectors to conduct non-comprehensive reconnaissance observations to assess continuing compliance of regulated facility operations or establish priorities for on-site inspections.
- EPA is improving the effectiveness of its compliance monitoring activities by developing inspection targeting tools.

Reinvigorating the Superfund Enforcement Program

Over the past four years, EPA has implemented recommendations of the Superfund Task Force to reinvigorate the Superfund enforcement program. Actions between 2017 and 2020 include issuing or updating policies on:

- “common elements” of the Superfund statutory landowner liability protections for bona fide prospective purchasers, contiguous property owners, and innocent landowners;
- “comfort/status letters” to respond to interested parties looking to acquire contaminated property;

- local government acquisition to address liability concerns;
- separating (bifurcating) RD/RA negotiations and expediting the negotiations process with PRPs for cleanup starts;
- using special accounts as a settlement incentive;
- elevating settlement issues relating to federal Potentially Responsible Parties (PRPs) at private sites;
- encouraging third-party investment to facilitate cleanup and reuse of contaminated property;
- advance monitoring technologies and approaches to support long-term stewardship; and
- coordination with states regarding cleanup and oversight at Superfund sites.

Improvements also include focusing management attention on sites that are moving too slowly, through use of the Administrator’s Emphasis List. Successes include:

- Centredale Manor, Rhode Island: Following an April 2019 settlement, the \$100 million cleanup is underway at this site, which has been on the NPL since 2000.
- Kalamazoo River, Mississippi: Under a December 2020 settlement, responsible parties will conduct \$226 million in cleanup work at this site, which has been on the NPL since 1990.
- Westlake Landfill, Missouri: Under a September 2018 settlement, remedial design is finally underway at this site that has been on the NPL since 1990.
- Portland Harbor, Oregon: Agreements have finally been reached to design the remedy for the in-river portion of this site, which has been on the NPL since 2000.

Improving Oversight and Management

Over the past four years, EPA has improved oversight and management of EPA’s enforcement and compliance assurance programs. EPA has:

- Taken steps to address the problem of languishing civil and criminal enforcement actions by adopting:
 - a measure to reduce the number of civil judicial cases that are older than

2.5 years, increasing management focus and accountability and attaining environmental benefits more swiftly; and

- a measure to determine the disposition of a criminal lead within 45 days.
- Improved the dispute resolution process for Federal Facility Superfund Sites, thereby expediting cleanup, by increasing the frequency of outreach to involved parties and emphasizing the dispute resolution timeframes. In FY20, EPA resolved 13 Superfund disputes at federal facility sites.
- Improved the consistency of on-site inspections through a rule that establishes procedures for on-site civil inspections.
- Expedited identification and correction of noncompliance through a measure that requires 75 percent of inspection reports to be shared with the regulated entity within 70 days of the inspection.
- Adopted a goal to complete Superfund cleanup negotiations that had been languishing longer than two years.
- Updated its policies on tampering with vehicle emission controls that dated from the 1970s.

Improving Design and Management of Sewer Overflow Consent Decrees

Over the past four years, EPA has modernized its approach to sewer overflow consent decrees.

- EPA now allows an adaptive management approach for designing and implementing sewer overflow control measures, as demonstrated in the March 2020 approval of the Kansas City Unified Government long term control plan.
- EPA has expanded the opportunities for communities to rely on green infrastructure to control overflows, as evidenced by the May 2020 modification of the 2008 consent decree with Allegheny County Sanitary Authority (allowing this Pennsylvania sewer authority and its customers to swap out gray infrastructure for green) and the December 2020 lodging of a consent decree with Peoria, Illinois (approving an approach that allows Peoria to rely on green infrastructure to control overflows).
- EPA has improved its methods of tracking its consent decrees to ensure benefits are

achieved.

- Finally, EPA is updating its 1997 Financial Capability Assessment policy to recognize impacts on low income families when evaluating a community's capability to invest in control measures.



POLICY

The Office of Policy (OP) works with every EPA office to support and align agency priorities and enhance decision-making. OP provides multi-disciplinary analytic skills, management support, and special expertise in the following areas: regulatory policy and management, environmental economics, community revitalization, environmental justice, climate adaptation, environmental permitting, voluntary standards, and sector-based stakeholder engagement.

Regulatory Reform

In 2020, EPA continued to lead administration-wide efforts to implement President Trump's Regulatory Reform Executive Order (EO 13777) and the "two-for-one" Executive Order (EO 13771), which requires two deregulatory actions for every new regulatory action issued. Since January 2017, EPA has finalized more than five deregulatory actions for every new final regulatory action. In calendar year 2020 alone, EPA finalized 28 deregulatory actions, saving Americans an estimated \$92 billion in regulatory costs. EPA has an additional 32 deregulatory actions in development expected to save billions more.

Overall, under the Trump Administration, the EPA's 78 final deregulatory actions have saved Americans nearly \$100 billion in regulatory costs.

At the same time, all environmental indicators across the board have improved, demonstrating that you can decrease regulatory burdens and

improve the environment.

EPA has also advanced significant regulatory process reforms in 2020. As directed by President Trump's Executive Order on Improved Guidance Documents (EO 13891), OP created an online public portal for agency guidance documents in February. This portal marked the first time the public was provided access to all active guidance documents in an easily searchable database – a major milestone for government transparency. OP led a comprehensive cross-agency review of all guidance documents, some dating back to EPA's origins, and ultimately identified over 9,000 active guidance documents. At the same time, the agency rescinded over 1,000 outdated guidance documents. In conjunction with the guidance portal, OP finalized its first rulemaking in September that formally established procedures for the issuance of new guidance as well as a public petition process.

"Today's action is perhaps the biggest change in administrative procedures in a generation and one of the five pillars of EPA reform under President Trump," said EPA Administrator Andrew Wheeler. "This historic rule guarantees the transparency the public deserves when engaging with the agency. This is a massive step forward for EPA bringing these legal documents into the light."

National Environmental Policy Act

2020 marks the 50th anniversary of both the EPA and the National Environmental Policy Act (NEPA). OP played a critical role in the development of CEQ's first comprehensive update to its NEPA Regulations in over 40 years, providing detailed technical reviews of the February proposal and July final rule. OP has subsequently led training efforts to ensure smooth implementation of the NEPA Modernization Rule across EPA. OP is also working to update our NEPA procedures, consistent with CEQ's final rule. In December 2020, OP submitted our proposed regulatory update to EPA's NEPA Implementing procedures to the Office of Management and Budget (OMB) for interagency review.



Environmental Economics

In December 2020, EPA finalized SAGE, the first economy-wide model the agency has developed for economic analyses. SAGE, which is available to the public, will allow the agency to conduct more comprehensive and informative analyses of the benefits and costs of EPA's regulations by tracing out how regulatory impacts ripple throughout the economy.

In 2020, OP also hit a major milestone towards issuing the first major update of EPA's Guidelines for Preparing Economic Analysis in over a decade. A panel of the Science Advisory Board (SAB) completed its peer review and submitted it to the chartered SAB for a quality review in September 2020. Once finalized, this update will ensure that the Guidelines, which the agency uses to analyze the economic impact of our regulatory actions, are current with all the advances made in economics since that time.

Support to Distressed Communities

To advance this "community-driven environmentalism" approach, the administrator charged OP with initiating a series of actions to better serve communities in need. As one example, in December, we announced the launch of the Clearinghouse for Environmental Finance (Clearinghouse), an online database of land, air, and water information to aid communities in their efforts to improve environmental conditions. The Clearinghouse catalogues available funding, financing, and instructional resources from the agency's air, water, and land programs. OP collaborated with the Office of Water to create the Clearinghouse by expanding the existing Water

Finance Clearinghouse, which was launched in 2017 for communities looking for ways to fund and finance water infrastructure needs.

In addition, OP worked with the Local Government Advisory Committee (LGAC) to convene three workgroups in October 2020 to discuss a draft charge on community-based environmentalism approach and to learn how EPA may improve outcomes in underserved and rural communities. The LGAC accepted the formal charge at their meeting in December.

Targeted Assistance for Opportunity Zones

In 2020, EPA provided grants, technical assistance, tools, and training to support economically distressed communities, and prioritized those communities with Opportunity Zones in support of the White House Opportunity and Revitalization Council and President Trump's Executive Order 13853. Highlights of our work in this area include:

- OP delivered 29 new technical assistance projects to communities with Opportunity Zones. To ensure continuity of our support to communities during the COVID-19 pandemic, the Office of Community Revitalization deployed virtual meeting platforms to ensure effective distance-based technical assistance workshops.

“You all have been fabulous – much better virtual workshop than I could have imagined. This is actually getting us to a place of making a real difference in our community.”

- Laura Kirk, Glenwood (Colorado)
Downtown Development Authority

“The (EPA) workshop did everything to confirm my suspicions that there's a powerful network of folks out there wanting to connect and discuss more about the possibility of local foods as a resiliency plan for Springfield.”

- Piero Taico of the Illinois Stewardship Alliance



- In partnership with USDA, OP selected 16 communities to receive assistance under Local Foods, Local Places, a program that helps develop and strengthen their local food economy and boost economic opportunities for local farmers, while promoting clean air, safe water, open space, and healthy food choices.

“EPA is excited to work with our Woonsocket partners once they're ready to switch their focus from COVID-19 impacts back to developing a more robust local food economy. Our Local Foods, Local Places program has shown impressive results helping communities to support their local farmers and food producers by maximizing local economic opportunities.”

- EPA New England Regional Administrator
Dennis Deziel

- In partnership with the USFS and Northern Border Regional Commission, EPA delivered technical assistance to 10 rural communities through the Recreation Economies for Rural Communities program to help communities revitalize downtown areas and Main Streets through outdoor recreation.

“What a wonderful program and a truly inspirational week. All things considered I'm not sure how it could have gone any better...I had no understanding of how beneficial this workshop could be for our community and county. Thanks again to your team and their support as well. It must be fun to work with such a dynamic crew. I look forward to our continued

conversations and I'm excited to see what comes of our collaboration."

- Ray Brown, Executive Director, Sanders County Community Development Corp. (Thompson Falls, Montana)

On Environmental Justice (EJ), we awarded 12 EJ Small Grants and 18 Collaborative Problem-Solving Cooperative Agreements, including awards with additional funds received last Spring; revived the State Environmental Justice Cooperative Agreements and included a special emphasis on COVID-19 projects; hosted two NEJAC meetings, including a two-day in-person meeting in Jacksonville that led to meaningful feedback to the administrator and agency leaders.

Smart Sectors

In the Spring of 2020, OP released eight new interactive, web-based "sector snapshots," a tool designed to provide the public easy access to historical environmental and economic performance data on a sector basis over 20 years. These snapshots covered the following sectors: aerospace, agriculture, cement and concrete, construction, electronics and semiconductor manufacturing, mining, paper and wood products, and ports and maritime transportation sectors.



What they are saying:

"The EPA's new sector snapshot for U.S. agriculture highlights the ability of farmers and ranchers to use innovative new technologies to generate renewable energy, sequester carbon in the soils, and operate with a smaller carbon footprint," said American Farm Bureau Federation Chief Economist John Newton. "EPA's snapshot offers conservative estimates, and when you

consider that agricultural productivity has nearly tripled over the last 50 years while resource use has remained flat, the success story of U.S. farmers and ranchers is unparalleled."

"Mining is the foundation of our economy and the beginning of the supply chain for everything we use in modern society, and we appreciate EPA's initiative to showcase the industry's performance," said American Exploration and Mining Association Executive Director Mark Compton. "Our members' commitment to the environment is unmatched, and we look forward to continued, meaningful collaboration with the EPA, which we believe will lead to continuous improvement for the industry as well as the Agency."

OP subsequently published a comprehensive data update for all 13 sector snapshots in October. OP also hosted a series of virtual events with sectors partners and Administrator Wheeler, while regional Smart Sectors programs held multiple events to sustain relationships with sector partners despite challenges presented by the COVID-19 pandemic.

The total visits to the Smart Sectors program homepage and snapshots in 2020 was 33,500.

The total visits to the Smart Sectors program homepage and snapshots since program inception is 102,611.

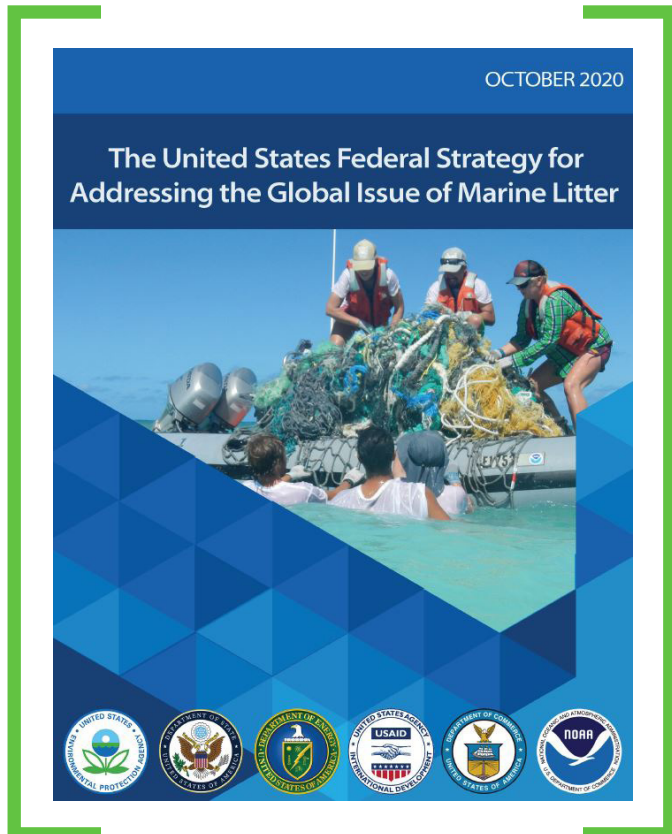


INTERNATIONAL & TRIBAL AFFAIRS

Preventing and Reducing Marine Litter

In 2020, EPA led an interagency effort to develop

The U.S. Federal Strategy for Addressing the Global Issue of Marine Litter (Strategy), which was released in October at an event in Boca Raton, Florida. This strategy outlines a comprehensive approach the Trump Administration is leading and the U.S. push for action to address marine litter internationally.



One of EPA's highest priorities is preventing trash, litter, and garbage—including plastics—from entering marine and freshwater environments. Five countries in Asia account for over half of the plastic waste input into the ocean: China, Indonesia, the Philippines, Thailand, and Vietnam. The majority of marine litter comes from land-based sources such as littering and the mismanagement of waste, and the most effective way to combat marine litter is to prevent and reduce land-based sources of waste from entering our oceans. To tackle these issues, the U.S. provides a critical global leadership role in improving waste management and recycling.

The strategy provides a model to prevent and reduce land-based sources of waste from entering our oceans in the first place. It is based on four pillars that define the U.S. approach:

1. Building capacity for waste and litter management systems.
2. Incentivizing the global recycling market in partnership with the private sector.
3. Promoting research and development for new solutions and technology.
4. Promoting marine litter removal, including litter capture systems in seas, rivers, and inland waterways.

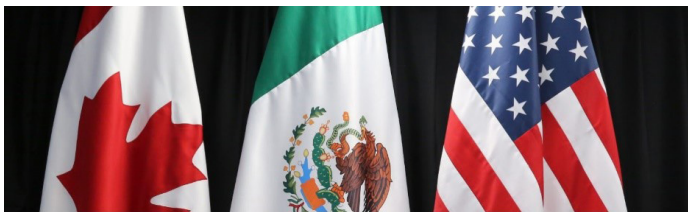
In the U.S., EPA's Trash Free Waters program works directly with states, municipalities, and businesses to prevent trash from entering waterways and capture trash when it has reached the water. We're taking what we have learned and expanded the Trash Free Waters Program internationally to communities in Central America, the Caribbean, and South America. For example, in Panama through a local non-governmental organization (NGO), EPA supported a community level pilot project to increase awareness on solid waste impacts on the community's river and the purchase a biobarda (bio fence) to collect the trash in the river and minimize the marine litter impacts. And under the EPA/Brazil Ministry of Environment (MMA) Memorandum of Understanding signed by Administrator Wheeler and his counterpart in early 2020, EPA and MMA have held three webinars for more than 75 participants to address various aspects of marine litter management. Moving forward, EPA will be exploring opportunities to share Trash Free Water principles with partners in Asia.

Strengthening America through Fair Free Trade

On July 1, 2020, the United States-Mexico-Canada (USMCA) Free Trade Agreement and its parallel Environmental Cooperation Agreement (ECA) entered into force. This trade agreement represents the most advanced environmental provisions to date in a U.S. trade agreement and will help EPA and other U.S. Government entities expand environmental cooperation through trade mechanisms. EPA played a key role in the creation and early work of the USMCA Interagency Environment Committee for Monitoring and Enforcement, which is tasked with overseeing implementation by Canada and Mexico of their USMCA environmental obligations on, for example marine litter and air quality. EPA has also detailed

an agency official as an environmental attaché to the U.S. Embassy in Mexico City to help ensure environmental provisions of the agreement are fully implemented. The USMCA text is the model for environmental provisions being developed through the U.S.-United Kingdom and U.S.-Kenya free trade agreement negotiations.

Section 821 of the United States-Mexico-Canada Agreement Implementation Act authorized and directed EPA in coordination with eligible public entities, such as the International Boundary and Water Commission, State of California, Indian Tribes, local governments, the Army Corps of Engineers, the Customs and Border Patrol, and the U.S. State Department, to carry out the planning, design, construction, and operation and maintenance of high priority treatment works in the Tijuana River watershed to treat wastewater (including stormwater), nonpoint sources of pollution, and related matters resulting from international transboundary water flows originating in Mexico. Title IX appropriated \$300,000,000 in State and Tribal Assistance Grants for architectural, engineering, planning, design, construction, and related activities in connection with the construction of high priority wastewater facilities in the area of the United States-Mexico Border, after consultation with the appropriate border commission.



Since March 2020, EPA has:

- Developed the USMCA strategy that will, in general, be implemented through the Border Water Infrastructure Program, building on a successful program history of working collaboratively with partners and communities to address urgent public health and environmental needs along the U.S.-Mexico border.
- Initiated the value engineering technical

assessment to identify a comprehensive suite of projects to holistically address transboundary flows. This ongoing technical assessment provides needed engineering and financial data, increases confidence in the selection of optimal and effective solutions, and improves the defensibility of the selection process.

- Established a comprehensive stakeholder engagement process, including: (1) the Eligible Public Entity Coordinating Group (EPECG), comprised of the eligible public entities, as defined in Section 821 of the USMCA; (2) a technical expert consultation process comprised of EPA technical staff, EPA's contractor, and the North American Development Bank (NADB) (which engages with other federal, state, and local technical experts as appropriate); and (3) regular public information meetings. The EPECG convened in June, July, October, and November. The technical expert consultation process is ongoing, and the group meets regularly. EPA has now hosted two public information meetings, one in June and one in November.
- Finalized the evaluation criteria, incorporating feedback received from the administrator as well as from the EPECG. Shared final criteria with the EPECG and the California congressional delegation.
- Sought feedback and recommendations from the EPECG on a suite of 10 projects covering range of pollution types and entry points into the U.S. that will be assessed through the value engineering analysis process.

EPA has been working diligently to develop activities that can address the U.S.-Mexico Border water infrastructure problem comprehensively, expeditiously, and in close cooperation with all of our border stakeholders. Our goal is to make sure that the infrastructure we construct is a total solution to address the Tijuana River transboundary pollution issues faced in the San Diego area and Tijuana River Valley.

Over the next year, EPA will conduct a value engineering process to evaluate project options in the San Diego-Tijuana region. While we anticipate that a large portion of the \$300 million will be

allocated to projects in the San Diego/Tijuana region, the final determination will be made once the collaborative value engineering process is complete.

Leading the Way in the G20

EPA led the U.S. engagement in the annual G20 Environment Ministers Meeting and also participated with colleagues at the U.S. Department of Agriculture and U.S. Department of State on water issues at this year's special G20 Agriculture and Water Ministers Meeting. The G20 Environment Ministers Meeting focused on two critical issues: addressing land degradation and conserving coral reefs.

In 2020, EPA also led the charge to launch the G20 Dialogue on Water, which showcases and facilitates the sharing of information on water management and water, sanitation, and hygiene (WASH) best practices. EPA highlighted four areas of best practices and innovations that highlight the WASH priority, the Safe Drinking Water Act (SDWA), Water Quality Management Plan and innovative approaches to financing water infrastructure such as WIFIA.



Screenshot of the virtual G20 Agriculture and Water Minister Meeting.

Commission for Environmental Cooperation

The Commission for Environmental Cooperation (CEC) facilitates cooperation among the United States, Canada, and Mexico to conserve, protect, and enhance the North American environment, promote sustainable development, and support the environmental goals and objectives of the USMCA. In June 2020, Administrator Wheeler, along with the environment ministries from

Canada and Mexico, finalized and approved the 2021-2025 Strategic Plan for the CEC, which marks a renewed commitment by the three countries to work together on pressing regional and global issues related to trade and the environment within the framework of a new trilateral free trade agreement—and a new ECA. The Strategic Plan supports the objectives established by the parties in the USMCA and ECA, which recognize the role of environmental cooperation and public participation in promoting mutually supportive trade and environmental policies. In June 2020, Administrator Wheeler assumed the chairmanship of the CEC Council.

EPA also works alongside our North American neighbors, Canada and Mexico, through the CEC on projects focused on border watersheds at both the U.S./Canada border and U.S./Mexico border and inland waterways to address land-based sources of marine litter. Results in 2020 include the development of a toolkit and training guide for decision makers. These materials are based on the stakeholder engagement process used in our Trash Free Waters program. The project also launched a critically needed Public Awareness Toolkit with ready-to-use, adaptable materials for municipalities, NGOs, educational institutions, and other organizations to deliver litter prevention programs and public awareness campaigns. These materials are designed to help inland communities, including urban areas.

CAFTA-DR

Since 2007 and under the framework of the U.S.-Central America and Dominican Republic Free Trade Agreement (CAFTA-DR), EPA has provided technical assistance to CAFTA-DR countries on key environmental issues, including: wastewater management, air quality, environmental enforcement and compliance, environmental impact assessment, and solid waste management. This year, the first Regional Guidelines on Public Participation in the Environmental Impact Assessment Process for CAFTA-DR countries was completed.

The Regional Guide was created through consensus building and public consultation and a comment process led by a Regional

Technical Working Group consisting of multiple stakeholders from each country (government ministries, business sector, and civil society groups). Additionally, EPA assisted CAFTA-DR countries to create country specific “Citizen’s Guides to Environmental Permitting” to educate the public on the environmental permitting process and their right to be involved in environmental reviews, monitoring, and enforcement.

Ministry of Environmental Protection – Israel

EPA and the Israeli Ministry of Environmental Protection (MoEP) have a long-standing relationship, dating back to 1991, with the signing of our first MOU. In October 2018, a new five-year MOU between EPA and MoEP was signed at EPA with the objective to work towards shared environmental goals. Key focus areas include the clean-up of contaminated sites in Israel, developing an Energy-Star like program in Israel, and increasing Water Reuse in the U.S.

Following the administrator’s trip to Israel in November 2019 and to advance EPA’s 2018 MOU with MoEP, Israel has committed to an Action Item within the National Water Reuse Action Plan, which includes presenting lessons learned in implementing an 85 percent water reuse rate to over 350 practitioners at the Water Reuse Association Symposium in September 2020 and hosting 20 of them for a Study Tour in May 2021. As a follow up to the symposium, Israel will present water reuse lessons learned to interested U.S. States.

U.S. – Taiwan Environmental Partnerships

During a virtual meeting in December, Administrator Wheeler and Taiwan’s Minister of Foreign Affairs Joseph Wu committed to extending the International Environmental Partnership between EPA and Taiwan, through the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office (TECRO), and to supporting a new Indo-Pacific Marine Litter Initiative with Taiwan’s Oceans Affairs Council and Environmental Protection Administration.

As we look to the future, EPA’s close collaboration with Taiwan will continue to grow stronger and

Taiwan’s environmental leadership will continue to be recognized through the International Environmental Partnership (IEP). EPA commends Taiwan for its commitment to global leadership and celebrate our joint environmental initiatives.

In addition, the U.S.-Taiwan IIEP provides a platform to strengthen capacity to address regional environmental challenges. Since its establishment, over 50 countries from Asia, Pacific Islands, Africa, Latin America, and North America have participated in many IEP programs, including Site Remediation, Environmental Law Enforcement, E-waste Management, Mercury Monitoring, Air Quality Management; Environmental Education, Circular Economy, and more recently, Renewable Energy, Pesticides and Chemicals Management, Children’s Health, and Marine Litter.

For example, the South & Southeast Asia-Air Improvements in the Region (SSEA-AIR) program prepared and released the Air Quality Action Plan template to plan ways to address specific air quality issues. And the Asia-Pacific Mercury Monitoring Network has expanded mercury monitoring and data sharing to more countries in the Asia-Pacific region to assist them in the implementation of the Minamata Convention. The IEP was recently renewed until 2022, with new program areas such as children’s health and marine litter and additional partners including Ministry of Health and Welfare, Ocean Conservation Administration, Ministry of Education, and Ministry of Economic Affairs. EPA’s framework with Taiwan is one of the most expansive and comprehensive of any U.S. federal agency in terms of interagency collaboration on a day-to-day basis.

Tribal Consultations

EPA continues its record of achievements in leading efforts to meaningfully engage tribal governments on a wide range of agency actions including rules, permits, policies, and other decisions that may affect tribal interests through implementation of EPA’s Policy on Tribal Consultation and Coordination. In 2018, EPA met a significance milestone in the history of EPA-tribal relationships having completed its

500th tribal consultation since the policy was enacted. In 2020, EPA continues consultation achievements completing 113 separate tribal consultations in fiscal year 2020—the highest level of consultations for any year.

Delegation of Regulatory Authority to Tribes

EPA approved 11 regulatory treatment in a similar manner as a state (TAS) applications from tribes in 2020 under the Clean Air Act and Clean Water Act, a record number for any calendar year since TAS regulations were enacted beginning in the mid-1990s. TAS approvals allow for tribes to play essentially the same role in Indian country that states do within state lands for implementing and managing certain environmental programs.

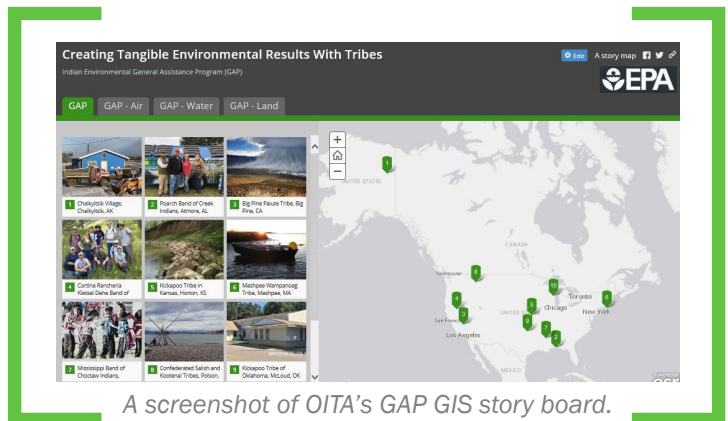
This successful high number of approvals follows several years of work to implement EPA's new web-based resource that makes accessible all TAS regulatory, administrative, and grant approvals for tribes – many of which include delegation of federal authority to a tribe for implementation of federal environmental programs in Indian country. The new centralized location for TAS information responds to requests from tribal governments and key stakeholders for more transparency on processing applications and notification of tribal TAS approvals. Prior to publishing the confirmed list of approvals on EPA's Tribal Program web page, information that was previously unavailable to the public.

EPA and Tribal Government Meetings

In 2020, the Director of American Indian Environmental Office (AIEO), along with OITA and AIEO management, participated in a record number of EPA RTOC meetings. RTOCs are the forum by which regional tribal leaders and regional EPA leadership come together to discuss policy matters related to tribal capacity building, program development, and program implementation in Indian country. In line with EPA's past pledge to make EPA tribal program leadership directly available to tribal leaders and environmental staff, EPA attended 13 in-person or virtual Regional Tribal Operations Committee (RTOC) meetings, numerous individual and group tribal leaders virtual meetings and visits, as well as EPA tribal partnership group meetings.

Showcasing Tribal Success Stories under GAP

In FY 2020, EPA launched the Indian Environmental General Assistance Program (GAP) Success Story National Pilot, which included the creation of a GIS story board highlighting tribal environmental capacity building progress toward protecting the environment and human health in Indian country to audiences such as Congress, OMB, tribal governments, and the public. The initial 10 success stories represent tribal programs from across the country that are using GAP to address air, water, and land issues.



A screenshot of OITA's GAP GIS story board.

EPA Tribal Environmental Agreement

AIEO continued to advance the implementation of EPA-Tribal Environmental Plans (ETEPs) in Indian country throughout 2020, including the completion of 500 separate ETEP agreements with tribal governments. ETEPs are strategic planning documents that clarify EPA and tribal roles and responsibilities for achieving multi-program goals. EPA uses ETEPs when negotiating workplans, providing training to tribes, and conducting periodic joint review of ETEPs. In FY 2020, AIEO completed over 2000 ETEP implementation actions.

Solid and Hazardous Waste Cleanups Funded under GAP

Through the Indian Environmental GAP, EPA supported tribal solid and hazardous waste-related issues across Indian country including approving eight requests to clean up illegally disposed household waste, appliances, tires, and abandoned autos and related activities. Over the past four years, EPA has approved a total of 40 requests to fund much needed cleanups of illegal dumps in Indian country.

EPA and Indian Health Service Interagency Agreement to Support Tribal Solid Waste Code Development

EPA negotiated a new Interagency Agreement (IA) in 2020 with the Indian Health Service (IHS) solidifying opportunities for continuing EPA-IHS work under a MOU between the agencies to “improve open dump data, solid waste projects, and programs in Indian country.” A long-standing area of focus is the joint AIEO-IHS tribal solid waste laws/codes development training project funded through the IA. To support this effort, EPA previously collaborated with IHS to provide targeted training and technical assistance to tribes implementing solid waste management programs resulting in 30 of 44 tribes who received training either adopting, or close to adopting, protective tribal solid waste laws.



RESEARCH & DEVELOPMENT

EPA’s Office of Research and Development (ORD)—the strong scientific and technical foundation of the agency—continued to help program offices, states, tribes, and others address their most pressing environmental and related public health challenges.

Strengthening Transparency in Regulatory Science

At the end of 2020, EPA finalized the Strengthening Transparency in Regulatory Science Rule. The American public has a right to know the scientific justification behind a regulation. This final rule bring much needed sunlight into our regulatory process. This action ensures that the pivotal science underlying final significant regulatory actions is publicly available in a manner sufficient for independent validation. The rule was first proposed in 2018, and in March 2020 EPA announced a supplemental

notice of proposed rulemaking that made some clarifications to the proposed rule. In September 2020, EPA submitted the final rule to OMB for Executive Order 12866 review.

Reducing the Use of Animal Testing

Since Administrator Wheeler issued his 2019 directive calling for the agency to eliminate mammal testing and funding by 2035, EPA has taken significant steps to reduce, replace, and refine testing requirements.

Launched New Approach Methodologies Website and Issued Work Plan

In January, EPA launched an EPA New Approach Methodologies (NAMs) website – a one-stop shop for getting updates about agency efforts to reduce the use of animal testing. EPA will continue to lead the way among federal agencies in the United States and internationally.

In June, EPA released the NAMs Work Plan, which outlines the objectives, strategies and deliverables that are important guideposts in reaching the 2035 animal testing goal. Any mammal studies requested or funded by EPA after 2035 will require administrator approval on a case-by-case basis. EPA also convened a meeting of the Science Advisory Board to offer advice on using NAMs to help reinvent the cancer bioassay.

In 2020, EPA continued building on past successes to reduce animal testing with the draft Strategic Plan to Promote the Development and Implementation of Alternative Test Methods released in March 2018 and \$4.25 million in funding to five universities to research the development and use of alternative test methods and strategies that reduce, refine, and/or replace vertebrate animal testing in September 2019.

Second Annual Conference on Animal Testing Alternatives

In October, Administrator Wheeler kicked off the agency’s Second Annual Conference on the State of the Science on Development and Use of NAMs for Chemical Safety Testing. More than 1,000 experts from EPA, other governmental agencies, academia, and industry gathered virtually to hear

presentations about scientific advancements in the NAMs field, enabling participants to develop a better understanding of the state of the science and develop scientific confidence in alternative test methods.

PETA Honors Administrator Wheeler

In October, the People for the Ethical Treatment of Animals (PETA) honored Administrator Wheeler for his leadership on animal testing. PETA honored him with the creation of the Pat C. Wheeler Scholarship—a tribute to his late mother, a lifelong advocate for the humane treatment of all animals. This first-of-its-kind PETA research grant will support scientists seeking to develop effective methods for testing chemicals without harming animals.

“In the face of flawed reliance on unreliable animal tests, Andrew Wheeler took action,” says Dr. Amy Clippinger, director of PETA’s Regulatory Testing Department. “PETA’s grant honors the administrator and his team for pioneering a shift toward superior, non-animal testing approaches—and enables scientists to bring them to fruition.”

Also in October, White Coat Waste Project honored Administrator Wheeler with the first-ever Greenbaum Policy Pioneer award for his visionary leadership in ending requirements for and funding of testing on mammals by 2035.

Reduced Pesticide Testing on Birds and Fish

In February, EPA released a new science policy reducing testing on birds when the agency has enough other information to safely register outdoor pesticides. Going forward, when the agency has enough information showing that a pesticide registration decision is protective of public health and the environment, it will no longer require unnecessary animal testing. The adoption of this guidance is expected to reduce the number of birds tested by approximately 720 birds per year. In July, EPA issued similar guidance for fish, saving an estimated 240 more test animals per year as well as agency, industry,

and laboratory resources.

Reducing the Use of Animal Testing Under TSCA

As required under TSCA Section 4, EPA regularly maintains and updates a list of NAMs and plans to release a draft proposal for selecting which NAMs will be included on future versions of the list. This draft proposal will be released for public comment in early 2021.

Harmful Algal Blooms

Harmful algal blooms (HABs) are a major environmental problem. Red tides, blue-green algae, and cyanobacteria are examples of HABs that can have severe impacts on human health, aquatic ecosystems, and the economy.

Last year, EPA released the Cyanobacteria Assessment Network mobile application to identify harmful algal blooms in more than 2,000 U.S. lakes and reservoirs. In partnership with National Aeronautics and Space Administration, National Oceanic and Atmospheric Administration, and USGS, EPA worked to develop this early warning system using historical and current satellite data to help lake managers, water quality managers, and people swimming, fishing, or boating in lakes more quickly identify when there may be a bloom forming and avoid any potential health impacts to people, pets, livestock or the environment.



In September 2020, EPA took another step to address the environmental challenges posed by harmful algal blooms by announcing \$6,487,188 in funding to seven institutions to research how to prevent and control HABs using current and new technologies.

Next Gen Fertilizer Challenges

EPA uses challenges and competitions to help address EPA priorities. EPA has launched nearly

40 challenges that have resulted in development and use of innovative solutions and strategies with measurable results. EPA has launched challenges focused on technology-development and market-stimulation, software and algorithm development and communication.

In August, EPA partnered with USDA to launch the joint EPA-USDA partnership and competition on Next Gen Fertilizers to Advance Agricultural Sustainability in the U.S. Along with EPA and USDA, the competition is in collaboration with The Fertilizer Institute, the International Fertilizer Development Center, the Nature Conservancy, and the National Corn Growers Association. The competition includes two challenges that seek proposals for new and existing fertilizer technologies to maintain or improve crop yields while reducing the impacts of fertilizers on the environment.

Wildfire Research

EPA has been exploring the impacts of both short-term and long-term exposure to wildfire smoke on human health. In 2018, EPA released an updated version of the Smoke Sense app (originally launched in 2017), a mobile application that lets users learn about wildland fires and smoke health risks in their area and report health symptoms they experience. More recently, EPA revised the Wildfire Smoke Guide, which is intended to help health care professionals and asthma educators understand the health effects associated with wildfire smoke and steps to advise patients to take before and during a wildfire to reduce smoke exposure.

Integrated Science Assessments

EPA is committed to developing scientifically robust Integrated Science Assessments (ISAs) in a timely, efficient, and transparent manner. ISAs provide the scientific foundation necessary for the review of ecological effects associated with the secondary NAAQS for these three criteria pollutants under the Clean Air Act. In October 2020, EPA finalized the ISA for Oxides of Nitrogen (NO_x), Oxides of Sulfur (SO_x), and Particulate Matter (PM) – Ecological Criteria (Final Report). It is a comprehensive evaluation and synthesis of the most policy relevant science aimed at

characterizing the ecological effects caused by NO_x, SO_x, and PM.

Integrated Risk Information System

Between 2017 and 2020, EPA released several Integrated Risk Information System (IRIS) assessment plans and draft assessments. 2020 activity included the release of the draft document, Systematic Review Protocol for the Methylmercury (MeHg) IRIS Assessment (Preliminary Assessment Materials), for public comment; the release of the draft document, IRIS Assessment Plan (IAP) for Oral Exposure to Vanadium and Compounds (Scoping and Problem Formulation Materials) for public comment; and the release of the Staff Handbook for Developing Integrated Risk Information System (IRIS) Assessments, or IRIS Handbook, for public comment.

State Support and Engagement

ORD has developed critical partnerships with state environmental and health agencies through the Environmental Council of the States (ECOS) and its research arm, the Environmental Research Institute of the States (ERIS), and the Association of State and Territorial Health Officials (ASTHO) to ensure its research meets state environmental research needs. These collaborative efforts include EPA hosted visits from state environmental agency directors and staff to discuss topics of interest to states and related science needs, and shared ORD capabilities and EPA research to support states. Since 2016, ORD has hosted 15 meetings with states and regions to discuss the states' top science needs.

Recently, ORD initiated a Science Training webinar series to provide in-depth overviews and step-by-step tutorials on popular EPA models, tools and software. Over 3,300 people joined training webinars in FY 2020, including reps from 50 states, 2 territories and 46 tribes.

Over the past two years, ORD has worked to build partnerships with emergency management and natural resource agencies as well. This includes developing partnerships with state agency emergency responders through the National

Emergency Management Association, the ASTHO Preparedness team and the Association of Public Health Laboratories to share ORD's emergency response research. In March 2019, ORD became a member of the Association of Fish and Wildlife Agencies.

Supporting Small Business and Students

EPA continues to support small businesses across the country through its Small Business Innovation Research (SBIR) program. This funding helps small businesses develop innovative environmental technologies for the marketplace. In 2020, EPA awarded \$5.3 million to 33 small businesses in Phase I and Phase II contracts to develop and commercialize solutions for environmental issues in the areas of clean and safe water, air quality, land revitalization, homeland security, sustainable materials management, and safer chemicals.

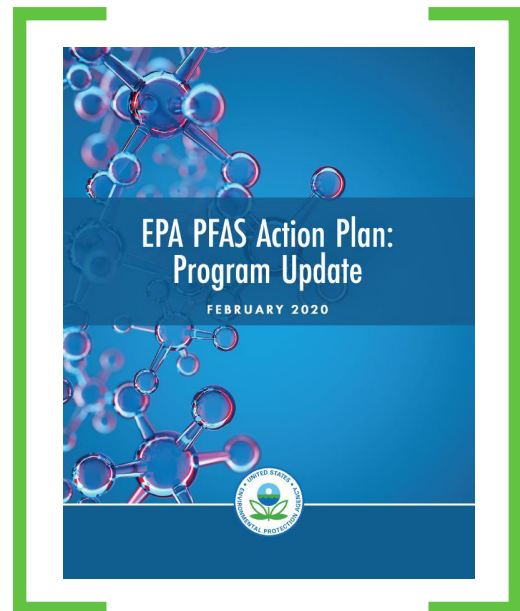
In 2020, EPA's People, Prosperity, and the Planet Program awarded over \$1.1 million to teams of undergraduates and graduates students from across the country to develop sustainable technologies to solve current environmental and public health challenges in the areas of Air Quality, Safe and Sustainable Water Resources, Sustainable and Healthy Communities, and Chemical Safety. Specifically, EPA provided \$574,054 in Phase I funding for 32 student teams and \$594,424 in Phase II funding for eight student teams.



Aggressively addressing per- and polyfluoroalkyl substances (PFAS) continues to be an active and ongoing priority for EPA. PFAS are a large group of man-made chemicals used in consumer products and industrial processes. In use since the 1940s, PFAS are resistant to heat, oils, stains, grease, and water—properties that can contribute to their persistence in the environment.

In carrying out EPA's mission to protect human health and the environment, in 2020 the agency continued to lead a national effort to better understand PFAS and reduce public health risks. In February 2020, EPA celebrated the first year of progress under the PFAS Action Plan by releasing the first-ever PFAS Action Plan Program Update. This document highlighted the momentum that was sustained from the launch of the PFAS Action Plan throughout its first year of implementation. In the program update, Administrator Wheeler called on the agency – and the nation – to redouble and refine efforts to address this chemical of concern:

“Addressing this challenge will require action from all levels of government – federal, state, local, and tribal which is why this year I put a new emphasis on identifying funding opportunities for PFAS research and mitigation efforts.”



And in 2020, EPA delivered on the administrator's commitment – continuing the momentum under the plan and reaching key milestones under the agency's first multi-media, multi-program, national research, management, and risk communication plan to address a challenge like PFAS. This year's accomplishments were wide-ranging and reflect the agency's commitment to working collaboratively – both inside and outside the agency – to reduce risk and protect public health. Progress was made in the following areas:

EPA's Scientific Leadership and Providing Support and Technical Assistance to States

Additional information about PFAS chemicals is needed to better understand the risk associated with this class of substances, and EPA continues to place a strong emphasis on research. Some highlights of this work in 2020 include:

- In 2020, EPA created its PFAS Innovative Treatment Team (PITT). The PITT undertook a six-month effort to assess current and emerging destruction methods. This included exploring how well these methods work to destroy PFAS while considering their potential to create harmful byproducts and evaluating feasibility in terms of cost and performance. This information is providing states, tribes, and local governments with data on viable approaches for destruction/disposal of PFAS, which will lead to increased confidence in cleanup operations and safer communities.
- In July 2020, EPA completed an update to its Drinking Water Treatability Database with new treatment options and scientific references for PFAS.
- In July 2020, EPA publicly released updates to the CompTox Chemical Dashboard, including new data and predictive models for PFAS that will help prioritize PFAS for further testing, help inform categorization efforts, and ultimately help the agency determine the true risk of potential exposure to these substances. The Dashboard is a one-stop-shop for information on not just PFAS chemicals, but also hundreds of thousands of other chemicals.
- In October 2020, EPA, U.S. Department of Defense (DoD), USDA, and U.S. Health and Human Services engaged the National Academies of Sciences, Engineering, and Medicine's (NASEM) Workshop on Federal Government Human Health PFAS Research. This workshop put on display the extensive and coordinate PFAS research ongoing across the federal government. Most importantly NASEM will offer its advice on the government's research portfolio and any

potential gaps.

- EPA has also formed partnerships with states, tribes, and local communities across the country. These joint projects, which include partnerships with more than 30 states, allow EPA to take the knowledge of its world class scientists and apply it in a collaborative fashion where it counts most. For example, the data reports that EPA provided to the State of Michigan represent just two of 27 recent data reports ORD has delivered to states across the country, providing the results of analyses of PFAS in water, soil, sediment, air emissions, vegetation, and other media. In all, these 27 data reports provide results on just under 1,000 samples collected in conjunction with states and analyzed by EPA.
 - In conjunction with the New Hampshire Department of Environmental Services (NHDES), EPA analyzed PFAS in air emissions, char, and dispersants at an industrial site, along with PFAS in water (surface/ground) and soil collected in proximity to this site. NHDES used the results to inform air permitting requirements for the site.
 - At the request of West Virginia Department of Environmental Protection (WVDEP), EPA scientists analyzed PFAS samples collected during air emission testing at an industrial facility near Parkersburg. The results helped demonstrate the effectiveness of emissions controls for GenX and other legacy Perfluorinated Carboxylic Acids (PFCAs) and allowed the WVDEP to make the appropriate informed decisions.
 - EPA researchers have been working with Region 2 and the New York State Department of Environmental Conservation (NYDEC) to sample emissions to characterize potential PFAS air releases from a facility in Hoosick Falls, New York. In December 2019, NYDEC reported EPA's findings

to the mayor and the community that emissions are free of Perfluorooctanoic acid (PFOA) and other long-chain legacy Perfluorinated carboxylic acids (PFCAs).

- EPA is also funding research to generate science-based recommendations for managing PFAS in rural and agricultural areas and to expand the understanding of environmental risks posed by PFAS in water and waste streams. Over the course of the year, EPA provide more than \$15 million in research grants, including in August 2020, almost \$5 million for new research on managing PFAS in rural and agricultural communities. This funding went to Indiana University, Purdue University, and University of Georgia.



- In conjunction with multiple co-sponsors, EPA initiated the Innovative Ways to Destroy PFAS Challenge, asking solvers to submit detailed plans for a non-thermal way of destroying PFAS in concentrated film forming foam, while creating the least amount of potentially harmful byproducts.
- In November 2019, EPA released the draft document Systematic Review Protocol for the PFAS (PFBA, PFHxA, PFHxS, PFNA, and PFDA) IRIS Assessments for public comment. In July 2020, EPA announced the release of an update to the Systematic Review Protocol for the PFBA, PFHxA, PFHxS, PFNA, and PFDA IRIS Assessments in response to public comments.

Protecting the Nation's Drinking Water

As part of EPA's efforts under the PFAS Action Plan, the agency is following through on its commitment to address PFAS in drinking water.

- In December 2019, EPA accomplished a key milestone in the PFAS Action Plan by publishing a new validated method to test for 11 additional PFAS in drinking water. To date, EPA has established validated testing methods to effectively identify 29 unique PFAS compounds in drinking water and has provided this information to states and local public health agencies.
- In February 2020, EPA took another important step in implementing the PFAS Action Plan by proposing to regulate perfluorooctanesulfonic acid (PFOS) and PFOA in drinking water. The agency is currently reviewing and considering over 11,000 public comments on this action and plans to issue the Final Regulatory Determinations for PFOA and PFOS in January 2021. EPA is also gathering and evaluating information to determine if regulation is appropriate for other chemicals in the PFAS family.
- In July 2020, EPA transmitted the Unregulated Contaminant Monitoring Rule 5 proposal to OMB for interagency review. By the end of 2020, EPA anticipates proposing nationwide drinking water monitoring for PFAS using new methods that will be able to detect PFAS at lower concentrations than previously possible.
- Based on public comments received in January 2019, EPA is making updates to the draft GenX assessment including the incorporation of new dose-response studies and the initiation of a National Institute of Environmental Health Sciences (NIEHS) National Toxicology Program Pathology Working Group review of slides from a critical study. After developing the draft assessment through coordination within EPA and NIEHS, the agency will continue to engage with federal partners and perform a second external peer review to finalize this effort.

- In December 2020, issued a memo detailing an interim National Pollutant Discharge Elimination System permitting strategy for PFAS. EPA also provided an update on progress made, in collaboration with DoD, on developing analytical methods to test for up to 40 PFAS in wastewater and in other locations. Together, these actions help ensure that wastewater monitoring for PFAS can begin when appropriate analytical methods are finalized.

Moving forward, EPA is examining available information about PFAS in discharges to surface water to identify industrial sources that may warrant further study for potential regulation. Initial analyses of industrial sources and discharges of PFAS were included in EPA's Preliminary Effluent Guidelines Plan 14 that was released in October 2019.

Cleaning Up PFAS at Contaminated Sites

EPA supports its federal, state, local, and tribal partners by providing assistance in efforts to identify exposures, develop methods to measure PFAS in the environment, and support cleanup efforts where PFAS chemicals have been identified as a risk to public health.

- In December 2019, EPA issued Interim Recommendations for Addressing Groundwater Contaminated with PFOA and PFOS, which provides guidance, i.e., a screening level of 40 ppt and a preliminary remediation goal of 70 ppt, for addressing PFOS and PFOA contaminated groundwater for federal cleanup programs. This tool is critical for our state and local partners to help protect drinking water resources in communities across the country.
- EPA is working on a proposed rule to designate PFOA and PFOS as hazardous substances under CERCLA. In the absence of the rule, EPA has used its existing authorities to compel cleanups.
- Some Superfund NPL sites (including federal facilities) have PFAS detections, often in addition to the contaminants for which the

sites were originally listed.

- In December, EPA released the Interim Guidance on the Destruction and Disposal of PFAS and Materials Containing PFAS. The guidance provides information on technologies that may be feasible and appropriate for the destruction or disposal of PFAS and PFAS-containing materials. It also identifies ongoing research and development activities related to destruction and disposal technologies, which may inform future guidance. This action fulfilled the agency's obligation in the FY 2020 National Defense Authorization Act to publish within one year interim guidance on the destruction and disposal of PFAS.

Ensuring Companies Comply with National Laws and Regulations

EPA continues to use enforcement tools, when appropriate, to address PFAS exposure in the environment and assists states in enforcement activities. EPA intends to employ an enforcement strategy that relies first on state and local authorities and utilizes federal authorities as appropriate. To date, across the nation EPA has addressed PFAS in 15 cases using a variety of enforcement tools under the Safe Drinking Water Act, TSCA, RCRA, and CERCLA (where appropriate) and will continue to do so to protect public health and the environment.

For example, in May 2020, EPA and Swix Sport USA finalized an agreement resolving TSCA violations associated with the company's importation of noncompliant ski wax products containing PFAS. Swix violated the TSCA Premanufacturing Notice requirements and Import Certification requirements when it imported ski wax products containing six different PFAS chemicals on at least 83 occasions that were not included on the TSCA Inventory or were not otherwise exempt for commercial purposes. Swix ceased importation of these products, agreed to pay a civil penalty of \$375,625, and develop an educational program to raise awareness in

ski communities about PFAS chemicals in ski waxes.

Restricting the Manufacture, Import, and Use of Products Containing PFAS and Providing Communities with Information on PFAS Releases in their Environment

EPA is responsible for reviewing new chemical substances before they enter commerce to help manage the potential risk to public health and the environment from chemicals that are new to the marketplace. In 2020, EPA continued to expand the agency's efforts under the PFAS Action Plan, including the agency's work to update the Toxics Release Inventory (TRI) program to include PFAS and efforts to finalize a Significant New Use Rule (SNUR) for PFAS chemicals.

- In May 2020, EPA took the next step to implement an important PFAS requirement of the NDAA by issuing a final rule to officially add 172 PFAS to the list of chemicals required to be reported to the TRI. The inclusion of these 172 PFAS on the TRI list will provide EPA and the public with important information on these chemicals.
- In June, EPA finalized a SNUR for certain PFAS requiring persons to notify EPA at least 90 days before commencing the manufacture (including import) or processing of these chemical substances for significant new uses. This final rule strengthens the regulation of PFAS by requiring notice and EPA review before the use of long-chain PFAS that have been phased out in the U.S. could begin again.
- In December, EPA issued a draft compliance guide for the PFAS SNUR to provide additional clarity on what is meant by a "surface coating," identify which entities are regulated, describe the activities that are required or prohibited, and summarize the notification requirements of the final SNUR.



CHILDREN'S HEALTH

EPA plays a significant role in protecting children's health throughout the country, managing numerous programs that help keep children safe in the places where they live, learn, and play. Our environment is cleaner today than any other recorded point in our nation's history, leading to positive environmental health outcomes in communities across the nation.

To kick off this year's Children's Health Month, a month-long observance of 50 years of progress in protecting children's health, EPA celebrated Child Health Day on October 5, 2020. In his Child Health Day 2020 Proclamation, President Trump said, "we are reminded of our solemn obligation to love and protect these precious lives, and we recommit to helping America's youth reach their full potential." EPA released the Protecting Children's Health October 2020 brochure to celebrate environmental achievements that have improved children's health in the U.S.



Children's Healthy Learning Environments Grant Initiative

In April, EPA announced the Children's Healthy Learning Environments Grant Initiative to support children's environmental health in schools and childcare settings. In October, EPA announced that the New York State Department of Health and the Community Development Institute

were selected as awardees. These initiatives will advance children’s environmental health by providing training and tools for school occupants and childcare providers, to reduce children’s exposures to environmental hazards.

Pediatric Environmental Health Specialty Units

Based at university medical centers in each of EPA’s 10 regions, and supported through an ongoing partnership between EPA’s Office of Children’s Health Protection (OCHP) and the Agency for Toxic Substances and Disease Registry (ATSDR), Pediatric Environmental Health Specialty Units (PEHSU) are an interconnected network of environmental health specialists who provide medical information and advice on the prevention, diagnosis, management, and treatment of environmental conditions that influence reproductive and children’s health. A 5-year PEHSU Network Strategic Plan is under development in addition to working to meet program performance measures. The network exceeded its performance targets for resources developed, community members educated, and community consultations in 2020. OCHP is working with the American Academy of Pediatrics to evaluate the program performance data from 2014 to 2019.

Pediatric and Reproductive Environmental Health Scholars Program

Through regular program interactions and discussions among the National Institute of Environmental Health Sciences, ATSDR, and EPA, the Pediatric and Reproductive Environmental Health Scholars (PREHS) program was created to bring together shared interests in children’s environmental health and the advancement of the PEHSU program. The goal of PREHS is to create of a strong network of healthcare professionals who possess the skills and knowledge to address the complexities of pediatric and reproductive environmental health.

Wildfire Smoke and Children’s Health

EPA has set up three workgroups to develop guidance on masks, school activity, and sensors, as well as school indoor air quality for the current fire season. This guidance will be reviewed at the 2021 workshop and will be included in the next

version of the Wildfire Smoke Guide for Public Health Officials document. PEHSUs in Regions 8, 9, and 10 are involved in this effort, as are many federal, state, and local public health officials.

Collaborations

Family, Career, and Community Leaders of America

In March, EPA signed a MOU with Family, Career, and Community Leaders of America (FCCLA) to promote safer K-12 school environments. This partnership will give FCCLA the opportunity to establish children’s environmental health as a priority issue for youth and will encourage high school students to use publicly available EPA environmental education resources in the planning and implementation of their projects.

Children’s Environmental Health Research

OCHP assisted ORD in developing the “Center for Early Lifestage Vulnerabilities to Environmental Stressors” request for applications released in August as part of the Science to Achieve Results Program. EPA is interested in supporting a transdisciplinary research center to better understand potential causal relationships among cumulative exposures to chemicals and non-chemical environmental stressors during early lifestages and modifying factors that result in adverse developmental health effects. Developmental health outcomes may include attention deficit/hyperactivity disorder, reduced IQ, obesity, decreased self-regulatory capacities, anxiety, depression, attention problems, lower memory function, or structural changes to the brain.

ExpoKids

In collaboration with ORD, OCHP developed ExpoKids, an R-based data visualization tool that graphically illustrates estimates of relative and aggregate exposure sources within and across lifestages for up to 10 different media through the oral exposure route (e.g., dust, breastmilk, water, vegetables, etc.)

To use ExpoKids, chemical-specific exposure information for various media is entered into EPA’s Exposure Factors Interactive Resource for Scenarios Tool to calculate average daily doses

(ADD) by lifestage. ExpoKids then uses the data to produce graphs that illustrate aggregate ADDs and lifetime average daily doses for the oral exposure route across postnatal childhood lifestages (from birth to puberty) with adults as a comparator group.

EPA anticipates that the ExpoKids tool will be used by risk assessors, risk managers, scientists, and educators. An article describing the ExpoKids tool and its uses, using examples, was published on October 5, 2020, in the *Journal of Exposure Science and Environmental Epidemiology*.



Throughout this administration, EPA has been committed to reducing exposure to lead wherever it is found, whether in water, lead-based paint, contaminated soil, or polluted ambient air. EPA has worked to identify lead-exposed children and communities faster, communicate more effectively with stakeholders, and support and conduct clinical research to better understand and treat the dangers of lead exposure and related health risks. Through cross-agency efforts, collaboration with our federal, state, and local government partners under the December 2018 Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts (Action Plan), and continued prioritization by Administrator Wheeler, the agency made tremendous progress in 2020.

EPA Lead Coordination

To enable efficient decision making and effective collaboration on issues and actions related to lead, this year EPA finalized the Lead Coordination Plan. The plan recognizes the need for an agile and responsive framework to provide the mechanisms and accountability required to meet the agency's extensive portfolio of activities, and it promotes efficiencies across the agency by leveraging existing structures and

mechanisms while avoiding redundancy created by organizational silos.

Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts

Under the Trump Administration's December 2018 Action Plan, EPA continued to work with communities and partners to identify and eliminate lead exposure across the nation, especially for children who are the most vulnerable. Through cross-governmental collaborations, public partnerships, rulemaking processes, enforcement actions, and targeted outreach, EPA has made tremendous gains.

Air

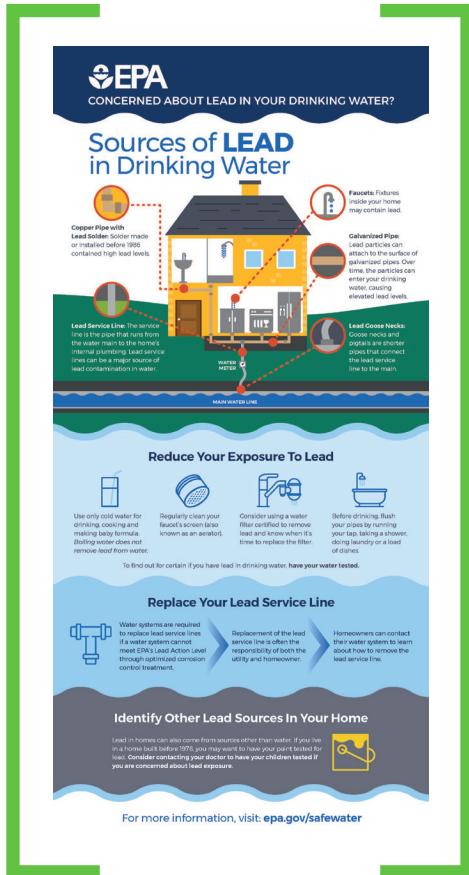
In 2020, through EPA's Office of Air and Radiation (OAR), EPA reduced the number of lead non-attainment areas to 11. Furthermore, 12 of the 22 initial areas designated non-attainment for the 2008 Lead NAAQS are now in attainment. For the majority of the remaining non-attainment areas, lead emissions and monitored concentrations are declining due to implemented control measures, and all non-attainment areas have fulfilled air quality implementation plan requirements.

In early 2020, EPA also released two technical reports, Model-extrapolated Estimates of Airborne Lead Concentrations at U.S. Airports and National Analysis of Populations Residing Near or Attending School Near U.S. Airports, that evaluate the impact of lead emissions from aircraft using leaded aviation fuel under the Clean Air Act.

Drinking Water

Lead can enter drinking water when plumbing materials that contain the heavy metal corrode. The most common sources of lead in drinking water are lead pipes, faucets, and plumbing fixtures. While the Safe Drinking Water Act requires lead testing for schools that have their own water supply, there are approximately 98,000 public schools and 500,000 childcare facilities that receive drinking water from a regulated public water system that is not directly regulated under SDWA. Schools and childcare centers receiving water from public water systems may not be conducting independent drinking water quality testing and often lack resources

and training needed to develop and implement drinking water programs. To address this challenge, EPA's Office of Water (OW) provides funding to states to establish or expand school testing programs through the Lead Testing in Schools and Child Care Programs Drinking Water grant.



In 2020, EPA awarded a total of nearly \$40 million to all 50 states and the District of Columbia under the WIIN Act. These grants will be used to assist disadvantaged communities and schools remove sources of lead in drinking water by replacing thousands of lead service lines, eliminating potential sources of lead in hundreds of schools and childcare facilities across the U.S.

To further reduce the sources of lead in drinking water, EPA issued the “Use of Lead-Free Pipes, Fittings, Fixtures, Solder, and Flux for Drinking Water Final Rule” in September. This rule limits the lead content allowed in plumbing materials used in public water systems, homes, schools, and other facilities in accordance with the Reduction of Lead in Drinking Water Act of 2011.

Since the program's development and throughout 2020, EPA assisted stakeholders implementing EPA's Training, Testing, and Taking Action (3Ts) program. The 3Ts help schools, childcare facilities, states, and water systems implement voluntary lead-in-drinking-water testing programs. This included developing resources to guide facilities to improve drinking water quality during and after extended closures due to COVID-19. EPA Region 6's Water Division developed and directed a voluntary drinking water sampling initiative under 3Ts guidance to address lead exposure in Native American children, protecting more than 4,000 from the harmful effects of lead exposure.

Lead-Based Paint

Reducing exposure to lead-based paint hazards in homes and child-occupied facilities has been part of the long-term collaboration between EPA's OCSPP and HUD. To better protect children from the harmful effects of lead exposure, EPA finalized the Residential Dust Lead Clearance Level Rule in December. The final rule reduces the clearance levels for lead in dust on floors and windowsills after lead removal activities from 40 micrograms (μg) of lead in dust per square foot (ft^2) to 10 $\mu\text{g}/\text{ft}^2$ for floor dust and from 250 $\mu\text{g}/\text{ft}^2$ to 100 $\mu\text{g}/\text{ft}^2$ for window sill dust.

Under the Lead Renovation, Repair, and Painting (RRP) Rule, individuals and firms conducting lead-based paint abatement, risk assessment, or inspection are required to be properly trained and certified to ensure reliable, effective, and safe work practice standards. In 2020, EPA certified 1,982 new RRP firms and trained 4,896 contractors. Furthermore, in partnership with EPA's Office of Enforcement and Compliance Assurance (OECA), OCSPP conducted 516 compliance-assistance activities to increase the number of RRP-certified firms. The rate of RRP firm recertifications has declined since the program was implemented in 2010, when extensive outreach and publicity surrounding the RRP regulation brought in a large number of applicants. Firms certified to conduct lead-safe work practices protect children from lead-based paint hazards. By using these best practices, they reduce dust-lead levels associated with

renovation, repair, and painting activities that disturb lead-based paint in target housing and child-occupied facilities.

In 2020, EPA protected children from exposure to lead paint by completing 109 civil and criminal federal enforcement actions addressing non-compliance with EPA's lead paint rules by renovation contractors, landlords, realtors, and others. In December 2020, EPA also lodged a settlement with Home Depot for nationwide non-compliance with the RRP Rule by Home Depot-provided contractors. Under the settlement, Home Depot will implement system-wide changes to ensure that contractors who perform work in homes constructed before 1978 are EPA-certified and follow lead-safe practices. The record-breaking penalty of over \$20 million will put other renovation companies on notice that they too need to ensure their contractors follow these critical laws that protect public health, deterring noncompliance.

Soil

Lead can be a relatively common soil contaminant because of past and current human activity or industrial uses (e.g. smelters) and natural occurrence. EPA's Superfund program's approach is to develop site-specific cleanup levels that account for total exposure to lead at a site. Almost 900 Superfund NPL and Superfund Alternative Approach sites identified lead as a contaminant of concern, potentially exposed to children in communities across the country. Young children often have higher rates of soil and dust ingestion due to crawling and mouth contact with hands and objects.

In 2020, EPA completed 56 Superfund cleanup actions at sites where lead is a contaminant of concern, significantly exceeding FY 2020 target of 24; 21 of these actions were at remedial sites and 35 were under the removal program. Throughout 2020, EPA regions continued to partner with ATSDR to conduct Soil Screening, Health, Outreach and Partnership, an outreach event to help people learn if their soil is contaminated with lead and how to reduce exposures to contaminated soil and produce.

Research

Building on past and current lead research is important to address critical information gaps and maximizing and leveraging coordinated opportunities to collaborate with our federal partners under the Action Plan. EPA's ORD accomplished much related to lead during 2020.

Specifically, ORD:

- Improved blood lead level models for application to risk mitigation actions and rulemaking, including the Integrated Exposure, Uptake, Biokinetic (IEUBK 2.0) model and the All Ages Lead Model.
- Continued developing methods for assessing bioaccessibility and bioavailability more rapidly and at less expense.
- Continued quantifying the bioavailability of lead from residential sources including analysis of water, soil, and dust samples from the American Healthy Homes Survey in collaboration with HUD.
- Provided technical assistance to EPA regions on lead mapping to identify high lead exposure locations and target potential exposure sources.
- Provided technical support to EPA regions and municipalities on corrosion control methods to reduce release of lead into drinking water from water systems sources and point-of-use filters to mitigate lead in drinking water.
- Published research on Evaluation of Lead Pipe Scale and Orthophosphate Treatment.
- Published Modeled Impacts of Drinking Water Lead Reduction Scenarios on Children's Exposures and Blood Lead Levels manuscript in Environmental Science & Technology.
- As part of the Science to Achieve Results program, released the Estimating Children's Soil and Dust Ingestion Rates for Exposure Science RFA on soil and dust ingestion by children.
- Convened the Federal Lead Action Plan Goal 4 Working Group to continue cross-federal agency lead research coordination.

Education

EPA's OCSPP collaborated with the National Tribal Toxics Council and the National EPA-Tribal Science Council to develop the Lead Awareness in Indian Country: Keeping our Children Healthy! curriculum. Developed in partnership with over 200 tribal representatives from 80 different tribal governments and organizations, partners provided feedback during development or evaluated the course after attending one of seven curriculum pilots hosted by tribes and tribal organizations, enhancing the materials. The curriculum includes relevant tribal scenarios and cultural information to increase lead-risk awareness and education in Indian country.

Throughout 2020, OCHP in collaboration with ATSDR, supported awareness of the dangers of lead exposure through the PEHSUs in all of EPA's 10 regions. Some of the efforts by Region 7 to combat child lead exposure can act as a typical example.

Since 2017, Region 7 has worked with the city of St. Joseph, Missouri, to build and strengthen relationships with community partners to reach 100 percent of day cares and more than 600 families in the ZIP code with the highest levels of lead in St. Joseph (among the highest in Missouri). Region 7 provided Lead Poisoning Prevention Training to 30 home day care and child care center teachers. Its communication efforts included, conducting one-on-one meetings with day care and nonprofit directors, providing outreach and education materials to each home day care and child care center, and holding a demonstration outreach and education event that served 75 families and tested 17 children.



PUBLIC ENGAGEMENT & ENVIRONMENTAL EDUCATION

This year, EPA selected 35 organizations to receive over \$3.2 million to support environmental projects nationwide under the 2020 Environmental Education Grants Program. The funding, ranging from \$50,000 to \$100,000, was given to organizations that provide environmental education activities and programs. This year's grantees will conduct project activities in 35 states and Puerto Rico. Through these environmental education grants, organizations will help expand the public's awareness of environmental challenges, strengthen their knowledge and understanding of environmental issues, gain skills to identify and help resolve challenges, and increase participation in activities to improve our environment.

2020 was the 4th year of EPA's 5-year teacher training program—ee360—with the North American Association for Environmental Education (NAAEE). Through ee360, NAAEE reached more than 169,000 formal and nonformal educators via their website as well as more than 3,500 educators directly and more than 300,000 educators indirectly, mostly through virtual training programming. ee360 conducted more than 22 webinars reaching more than 6,000 educators on topics ranging from the basics of environmental education (EE) to integrating EE and civic education to understanding the role of EE in developing a circular economy. Additionally, under the ee360 program more than 26 small grants were awarded to more than 23 states environmental education associations and organizations to strengthen their environmental education programming.

In partnership with CEQ, EPA recognized seven

teacher winners and three honorable mentions from across the country with the Presidential Innovation Award for Environmental Educators (PIAEE). Winning educators demonstrated leadership by integrating environmental education into multiple subjects and using topics such as healthy school environments, environmentally friendly agricultural practices, reducing ocean litter, gardening, recycling, or STEM to teach sustainability to K-12 students.

Additionally, 35 students who worked as a team or individually on 13 projects received the President's Environmental Youth Award (PEYA). Their stewardship projects, conducted in 2019, display a commitment to learning, to protecting natural resources, and to engaging their communities in environmental protection. To acknowledge both PIAEE and PEYA winners, virtual award ceremonies were conducted by most regions during which the regional administrators personally congratulated award recipients. Some regions, such as Region 7, further engaged with the Regional Tribal Operations Committee and Kickapoo Nation and coordinated their event with Native American Heritage Month to make event even more meaningful for their PEYA award recipient, Kickapoo School.



AGRICULTURE

In 2020, EPA continued to listen to the needs of America's farmers. While navigating unique challenges from the COVID-19 pandemic, the agency met with farmers, ranchers, and stakeholders out in their fields and found new ways to strengthen our partnership with the first conservationists of the land.

Administrator Wheeler and EPA took actions to meet the environmental needs of U.S. agriculture, while ensuring decisions were clear, transparent, and based on sound science.

One of the major priorities of this administration was to engage more effectively with the agriculture community. We know the importance of hearing firsthand from producers on the issues impacting their day-to-day life, which is why last year, we welcomed over 650 farmers and ranchers from across the country to visit EPA Headquarters in 2019—many for the first time. We have also launched the Smart Sectors Agriculture program, coordinating work across our regional offices to engage locally with the agriculture community and achieve better environmental outcomes by working together.



Administrator Wheeler speaks to farmers and FFA students at a farm in Minnesota.

Under President Trump, EPA worked to restore trust through proactive engagement with the agriculture community, deliver regulatory relief and certainty to U.S. agriculture, and provide environmental support through grants and other tools.

Finalized Improvements to Pesticide Application Exclusion Zone (AEZ) Requirements

EPA targeted changes to improve the enforceability and workability of the AEZ requirements, decrease regulatory burdens for farmers, and maintain critical worker protections.

Dicamba

EPA gave growers certainty to make decisions for the upcoming growing season and beyond, approving new registrations for two dicamba products and extending the registration of an additional dicamba product until 2025.

Supporting Renewable Fuels

EPA has consistently increased the renewable volume obligations, supporting farmers through actions under the Renewable Fuel Standard Program. EPA worked to ensure a net of 15 billion gallons of conventional biofuel are blended into the nation's fuel supply since the program's inception. EPA moved to deny petitions for small refinery exemptions for past compliance years and is engaging with stakeholders across the U.S. to expand the number of approved fuel pathways, adding diversity to the biofuel mix. Additionally as promised, EPA eliminated a significant barrier to E15 market access, and E15 is now available in 30 states at over 2,000 stations.

Enhancing Domestic Access to Clean Water through Water Reuse

In February 2020, EPA announced the release of the National Water Reuse Action Plan. Recycled water can be utilized in meeting the demands of water demands while mitigating the risks posed by droughts.

Ensuring Availability of Crop Protection Tools

EPA is listening to the community, and our Office of Pesticide Programs continues to approve new uses for existing pesticides and registering new active ingredients for farmers to utilize in their crop plans. This year, we issued 80 draft risk assessments, 80 proposed interim registration review decisions, and 110 interim registration review decisions.

Farm, Ranch and Rural Communities Committee

In June, Administrator Wheeler appointed 32 members to the Farm, Ranch and Rural Communities Committee. Since then, the committee has met twice to discuss the charge topics they received from the administrator. The committee has been charged to look at how EPA can create a holistic pesticide program for the future and how EPA can support environmental benchmarks with interagency partners on the topics of (1) water quality and quantity and (2) food loss and waste.

Protecting Rural Communities from Chemicals of Concern

EPA expanded efforts to address the potential

impacts of PFAS on water quality and availability in rural communities and agricultural operations across the U.S. In August 2020, EPA awarded \$4.8 million in grants to research for potential impacts and treatment of PFAS in rural America and the agricultural sector.

Agriculture Memoranda of Understanding

EPA has entered into a series of MOUs with the intent to increase collaboration and communication with agriculture stakeholders. These MOUs are meant to continue building partnerships with the agriculture community, while promoting sustainability and reaching for environmental successes in mutually beneficial and critical areas.

EPA and the Innovation Center for U.S. Dairy

In November, Administrator Wheeler signed a first-time MOU with the Innovation Center for U.S. Dairy. The MOU between EPA and the Innovation Center for U.S. Dairy signals a commitment to collaborate and coordinate in areas of mutual interest related to environmental stewardship in the dairy industry.

MOUs signed with EPA Regions:

Through continued engagement in the Regions, EPA strengthened partnerships at the state level. The MOUs focus on coordinating education and outreach efforts, while recognizing environmental stewardship activities. EPA has signed MOUs with the following:

- Alabama Department of Agriculture
- Delaware Department of Agriculture
- Florida Department of Agriculture & Consumer Services
- Georgia Department of Agriculture
- Illinois Farm Bureau
- Kentucky Department of Agriculture
- Maryland Department of Agriculture
- Mississippi Department of Agriculture
- North Carolina Department of Agriculture
- Pennsylvania Department of Agriculture* (LOU)
- South Carolina Department of Agriculture
- Tennessee Department of Agriculture
- West Virginia Department of Agriculture

EPA recognizes farmers and ranchers as

natural allies in EPA's mission to protect human health and the environment. These MOUs are meant to continue building partnerships with the agriculture community, while promoting sustainability and reaching for environmental successes in mutually beneficial and critical areas.

South Carolina Commissioner of

Agriculture Hugh Weathers: "This historic agreement between EPA and the South Carolina Department of Agriculture is an acknowledgment of what farmers have known for a long time: When it comes to protecting the environment, agriculture is part of the solution. We're thrilled to have a positive foundation for future collaboration with EPA."

Mississippi Department of Agriculture and Commerce Commissioner Andy Gipson:

"I appreciate the Trump Administration's efforts to repeal burdensome regulations that have hampered agriculture and commerce in the past. I look forward to further strengthening the relationship of the Mississippi Department of Agriculture and Commerce and the U.S. Environmental Protection Agency through the signing of this MOU, as we work together to promote sustainable farms that provide food and fiber for our communities in a clean environment for everyone to enjoy."

U.S. Congressman Rodney Davis (IL-13):

"I'm proud of the collaborative efforts formalized by the EPA and Illinois Farm Bureau signing a MOU this week in my district... The type of cooperation signified by the new MOU is what led to EPA's Dicamba registration decision that gives soybean farmers across the Midwest the certainty they need to do business, while also putting new safeguards in place to protect the environment."



GENERAL COUNSEL

This was a busy and productive year for EPA's Office of General Counsel (OGC), which continued to deliver several significant victories in the courts, provide outstanding legal counseling and support to the agency's program offices and senior leadership, and implement internal initiatives to increase efficiency and performance.

Courts across the country have continued to uphold EPA's efforts to adhere to the rule of law, provide certainty to the regulated community, and ensure a healthier environment for all Americans. This trend of achieving favorable rulings for the agency has persisted, as EPA obtained several wins in court this year. Specifically, to name a few, the agency received favorable rulings in suits challenging EPA's placement of the Rockwell International Wheel & Trim Site (Grenada, Mississippi) and Pierson's Creek Site (Newark, New Jersey), respectively, on the Superfund NPL. In the first case, *Meritor, Inc. v. EPA*, No. 18-1325 (D.C. Cir. July 28, 2020), the D.C. Circuit upheld the agency's application of the Hazard Ranking System (HRS) to score the Rockwell International Wheel & Trim Site above the 28.5 numerical threshold for NPL eligibility. The decision was significant as it was the first challenge to a site that was listed based on vapor intrusion under the Subsurface Intrusion pathway, which was added to the HRS in January 2017. In *Troy Chemical Corp. v. EPA*, No. 14-1290 (D.C. Cir. Nov.13, 2020), the D.C. Circuit held that Troy Chemical did not clear the high bar to overturn EPA's wetland delineation under substantial evidence review or that the delineation was undermined by contradictory evidence.

OGC served as the agency lead in negotiating a favorable settlement with Utah on August 5, 2020 in the matter of Gold King Mine Release in San Juan County, Colorado on August 5, 2015, MDL No: 1:18-md-02824-WJ (D. N.M.). Pursuant to the agreement, Utah will dismiss its legal claims against the EPA and the United States, as well

as EPA's contractors, and EPA will strengthen Utah's involvement in the agency's work to address contamination at the Bonita Peak Mining District Superfund Site, which includes the Gold King Mine and other abandoned mines. EPA will also continue to partner with Utah on other environmental priorities, including the assessment of abandoned mine sites in Utah that may be impacting its waters as well as other projects to improve Utah's water quality. As part of the agreement, EPA will act on the Utah Department of Environmental Quality's application for \$3 million in Clean Water Act funds for various projects, including the development of water quality criteria for Utah Lake, septic density studies, nonpoint source pollution reduction projects, and nutrient management plans for agricultural sources. EPA will also initiate Superfund assessments of several abandoned mine sites in Utah by December 2021.



Utah Attorney General Reyes signs agreement with EPA to resolve Gold King Mine claims.

Over the past year, courts have also ruled in favor of EPA in several cases decided under the Clean Air Act, including *California v. EPA*, No. 19-17480 (9th Cir. Oct. 22, 2020). In that case, eight plaintiff States (led by California) sued EPA alleging that EPA had failed to perform a nondiscretionary duty to act on a handful of submitted state landfill emissions plans and to promulgate a federal landfill emissions plan by certain deadlines. The court ordered EPA to approve or disapprove submitted state plans by a particular date, which EPA did timely. The

court also entered an injunction requiring EPA to promulgate, by November 6, 2019, regulations setting forth a federal plan to implement the Municipal Solid Waste (MSW) Landfill Emission Guidelines for those states without approved state plans. On August 26, 2019, EPA finalized amendments to the MSW Landfill Emission Guidelines, which revised and extended the applicable timelines for the submission and action on state plans, and for EPA's promulgation of a federal plan. That same day, EPA filed a motion seeking relief from its injunction to promulgate regulations establishing a federal plan by November 6, 2019. The district court denied the motion. In a unanimous decision, the Ninth Circuit panel reversed the denial, finding the district court abused its discretion when it refused to modify its injunction after EPA revised the underlying regulations providing the basis for the mandatory duty suit. The Ninth Circuit remanded the case to the district court with instructions to modify the injunction consistent with its opinion.

A favorable decision was handed down in *Menominee Tribe of Wisconsin v. EPA, et al.*, No. 18-C-108 (E.D. Wis. Oct. 20, 2019), *aff'd* *Menominee Indian Tribe of Wisconsin v. EPA, et al.*, No. 19-1130 (7th Cir. Jan. 27, 2020). This case arose out of the refusal by EPA and Army Corps of Engineers to exercise jurisdiction over a permit issued pursuant to Section 404 of the Clean Water Act relating to a proposal to construct a mine in Michigan. The Seventh Circuit Court of Appeals affirmed the district court's dismissal of the plaintiffs' complaint and denial of the plaintiffs' motion to amend. The court held that the agencies' letters stating that the agencies lacked authority to reconsider the State of Michigan's authority to issue Section 404 permits for construction of a mine on the Menominee River did not reflect agency decisions and held that EPA's decision to withdraw its objections to the state's proposed permit was committed to EPA's discretion by law and therefore unreviewable under the Administrative Procedure Act.

OGC continued to provide outstanding legal counseling and support to the agency's program

offices and senior leadership. In the Clean Water Act space, OGC provided critical legal support for implementation of a Presidential Executive Order directing EPA and the Army Corps of Engineers to undertake rulemaking to redefine “waters of the United States” (WOTUS) under the Clean Water Act, including providing significant support in the drafting of the final rulemaking documents supporting the new definition of WOTUS, which was published in April 2020.

OGC provided critical legal support to the Department of Justice in dozens of pending cases challenging a WOTUS rule promulgated by the agency in 2015, as well as WOTUS rules promulgated in 2019 and 2020, including procedural and dispositive motions and motions for preliminary injunction. Over the summer, a federal court rejected an initial challenge to NWPR, EPA’s new definition of WOTUS, denying an attempt by 17 states to stop implementation of the NWPR nationwide.

In July 2020, OGC finalized a rule to modernize and streamline EPA’s permit review process for the first time in 27 years. OGC served as the lead rule writer and legal counselor on this rulemaking in issuing the proposal, addressing numerous comments, and developing the final rule. This rule clarifies the scope of review of the Environmental Appeals Board, makes permits effective more quickly by expediting administrative appeals and provides greater accountability for EPA’s permit appeal process. This rulemaking will have a critical impact across a number of EPA’s programs and the implementation of several environmental statutes, as it will govern the issuance of permits under the CWA, SDWA, Clean Air Act, and RCRA.

OGC also led a cross-agency effort to implement Executive Order (EO) 13892 – Promoting the Rule of Law Through Transparency and Fairness in Civil Administrative Enforcement and Adjudications – directing agencies, among other things, to take several measures from providing pre-enforcement notice and an opportunity to be heard to issuing rules on procedures for ensuring reasonable administrative inspections. OGC developed key interpretations as well as a strategy to implement the EO broadly as to effectuate significant

changes in current practices. As part of that effort, OGC ensured that the rule governing inspections required by the EO provided clear and consistent direction to EPA inspectors and advanced the overall goal of greater transparency and fairness to the regulated community. OGC has also been the catalyst for ensuring that the EO will be implemented in a manner that will result in fundamental and durable changes to EPA enforcement practices, providing greater uniformity and transparency to the benefit of countless members of the regulated community.

Freedom of Information Act

OGC was also successful in defending the agency in more than 76 Freedom of Information Act (FOIA) cases, including complex cases with novel FOIA issues. OGC completed 180 FOIA administrative appeals and reduced the FOIA administrative appeal backlog by more than 60 percent for appeals received before this fiscal year.

EPA’s National FOIA Office (NFO), located in OGC, leads the agency’s implementation of the FOIA and sets EPA’s nationwide FOIA policies. This year, NFO was instrumental in leading the agency to enhance FOIA performance by centralizing FOIA request intake, enabling it to improve efficiency, consistency, and quality of the agency’s early communications with requesters. The initial review and assignment of all FOIA requests and first communication with requesters are now made rapidly, in less than three days on average. In FY 2020, the NFO performed the intake, initial review and assignment of 6,891 FOIA requests; addressed 411 petitions for expedited FOIA processing; and adjudicated 458 applications for fee waiver. The NFO also processed and closed 2,121 FOIA requests.

On FOIA requests, EPA brought down the backlog of overdue FOIA requests to 1,396 at the end of FY 2020. This is down 732 or 34 percent from the beginning of FY 2020, when the number of overdue FOIA requests stood at 2,128. Specifically, the Administrator’s Office achieved 61 percent of the agency-wide reduction in FY 2020.

External Civil Rights Compliance

OGC's External Civil Rights Compliance Office (ECRCO) made significant strides in achieving its external civil rights mission. For example, ECRCO has made substantial progress in performing its enforcement and oversight functions since FY 2017, including clearing its overaged cases; issuing a Strategic Plan, Case Resolution Manual and Compliance Toolkit; and collaborating with other parts of the agency to launch compliance reviews and other proactive initiatives.



OFFICE OF CONTINUOUS IMPROVEMENT

EPA's Lean Management System (ELMS)—our agency-wide systemic approach to continuous process improvement—delivered impressive results in the past year. With goals of deployment to 80 percent of agency personnel by the end FY 2020 and the improvement of 250 processes by the end of the FY 2022, EPA's Office of Continuous Improvement both met and surpassed these initial targets. Both goals were successfully met and surpassed in FY 2020, with the agency reporting over 500 processes improved and 83 percent of personnel using ELMS.

WHAT IS ELMS?

ELMS is based on lean principles used for years by the private sector and is composed of six components: visual management, standard process, cascading performance measures, problem solving, business reviews and huddles, and leader behaviors. EPA implementation of each of these elements has allowed EPA to make significant improvements to the speed and quality at which it delivers its services to the American people.

"I'm extremely proud of this agency's embrace of lean principles and commitment to continuous improvement," said Henry Darwin, EPA's chief operating officer and visionary behind ELMS. "Setting numeric goals, tracking workflow and performance, and solving problems using data and evidence is how I believe this agency can better protect human health and the environment. ELMS has given EPA employees a new way to accomplish our mission and the results speak for themselves."

Some of the most notable process improvements that have been made since the system was implemented include reducing the agency's backlog of FOIA requests by almost 45 percent, increasing the number of inspections reports that are completed on-time and communicated to the regulated entity from around 49 percent to 82 percent, and a reduction in the number of backlogged new permit applications by almost 150.

Noteworthy Process Improvements

- Region 9 used ELMS to significantly reduce the time firms and renovators take to get into compliance with residential lead-based paint requirements by 71 percent.
- Region 2 used ELMS in a cross-divisional effort to reduce the backlog in National Pollution Discharge Elimination System permits in Puerto Rico by 88 percent.
- The Office of Water used ELMS to reduce backlogs of EPA actions taken on state-submitted lists of waters not meeting water quality standards by 96 percent and associated state-submitted pollution reduction targets for those waters by 99 percent.



OFFICE OF MISSION SUPPORT

EPA's Office of Mission Support (OMS) leads the agency's core mission support functions to improve efficiency, coordination, and customer experience for internal customers, stakeholders, and the public. OMS is also responsible for protecting EPA's facilities and other critical assets nationwide, acquisition activities (contracts), grants management, human capital, information technology, and information management activities.

HIRING

Virtual Onboarding and Workforce Hiring

EPA continued to focus on increasing the number of hiring actions to obtain the next cohort of environmental leaders. As a result of this action, EPA successfully completed over 2,000 recruitment actions in FY 2020, 40 percent more than in FY 2019, and reduced the average time-to-hire average by 11 days.

For the first time in three years, EPA had a net positive gain in employees in FY 2020 as a result of external hiring efforts. Specifically, EPA hired 1,450 new employees with over 800 of those hires made during the COVID-19 pandemic. The swift transition to virtual onboarding made this possible.

TELEWORK

Information Technology

EPA took steps to quickly respond to the COVID-19 pandemic and successfully adapted complex and varied operations in order to protect the health and safety of employees while maintaining mission critical operations. With an increased and concentrated effort on information technology modernization during the pandemic, EPA was prepared and able to rapidly transition seamlessly to maximum telework posture. As part of those actions, EPA put in place a cohesive process to virtually onboard and remotely

provision IT equipment to new hires.

In early March, OMS worked quickly with service providers to increase availability and then address VPN connectivity issues due to increased telework. To increase remote collaboration and ensure the workforce was able to stay connected, OMS rolled out Microsoft (MS) Teams in record time, and by the end of FY 2020, over 85 percent of EPA employees were regularly active in MS Teams.

EPA also accelerated the availability of and training for MS Teams Live Events broadcasting service, which allows for up to 10,000 attendees and saves the agency approximately \$1200 per event.

INFORMATION TECHNOLOGY

Improved EPA FITARA Scorecard

In July 2020, EPA improved its report grade from a C+ to a B+ on the Federal Information Technology Acquisition Reform Act (FITARA) scorecard, where only nine out of 24 agencies received a score of B+ or higher. FITARA is a congressional assessment of federal agencies responsible for risk management, incremental software development, Chief Information Officer reporting structure, and more. EPA was later recognized as one of the "Most Improved" federal agencies overall by the House Oversight and Reform Committee.

UNION

Collective Bargaining Agreement

In August, EPA signed a new Master Collective Bargaining Agreement (MCBA) with EPA's largest Union, the American Federation of Government Employees (AFGE). The successful negotiation of a new agreement is the latest step in an ongoing effort by the Trump Administration to create an effective and efficient government.

The new contract resolution comes after nearly a decade of litigation and unsuccessful negotiations. During negotiations, EPA offered a best and final deal, which would have given employees additional workplace flexibilities. This was ultimately rejected by the union as they chose to place a higher value on paying union

leadership with taxpayer dollars to perform union work and open up new avenues for grievances over EPA employee workplace flexibilities.

The new MCBA was negotiated at a national level to streamline the negotiation process and create consistency across EPA's nationwide footprint. The agency pursued contract provisions that will reduce costs, promote government performance and accountability, and limit the use of taxpayer-funded union time, consistent with the requirements of President Trump's Executive Orders 13836 – Developing Efficient, Effective, and Cost-Reducing Approaches to Federal Sector Collective Bargaining; 13837 – Ensuring Transparency, Accountability, and Efficiency in Taxpayer-Funded Union Time Use; and 13839 – Promoting Accountability and Streamlining Removal Procedures Consistent with Merit System Principles. Collective bargaining is the preferred, statutorily established method for employees to participate in making the decisions that affect their working conditions.

GRANT PROGRAM

Awards

EPA has approximately 100 grant programs that represent half of the agency's budget (approximately \$4 billion annually). These grants are key mechanisms EPA uses to partner with states, local governments, tribes, non-profit organizations, educational institutions, and other stakeholders to advance the agency's mission of protecting human health and the environment.

In FY 2020, EPA made millions of dollars in competitive awards available to local governments, tribes, and state governments to address environmental and public health challenges exacerbated by COVID-19 in underserved communities. In addition, EPA worked to maintain our ability to efficiently and effectively award grants to meet environmental priorities during the pandemic and to maintain grantees ability to properly manage and administer grants. EPA developed guidance for the internal and external grants community—including FAQs, electronic signature guidance—and issued a competition resulting in the selection of awards to help communities

adversely impacted by COVID-19, including cities and tribes.



OFFICE OF THE CHIEF FINANCIAL OFFICER

Continued Excellence, Improved Metrics

EPA's Office of the Chief Financial Officer (OCFO) oversaw the successful passage of the agency's 21st consecutive clean financial audit—a substantial achievement. The Office of Inspector General, who performed the audit, found EPA's financial statement to be fairly presented and free of material misstatement.

From an agency operational standpoint, this year, OCFO spearheaded agency quarterly performance reviews equipping senior agency leaders to review performance metrics from across EPA, recognize achievements worth celebrating, and identify metrics that indicate additional attention from management is needed. This better positioned the agency to meet its long-term performance goals found in EPA's Strategic Plan.

Innovative Tools & Implementation

This year, OCFO launched two new tools to enhance the agency's work on WIFIA loans and payroll. In support of WIFIA, OCFO introduced a new accounting module in the financial system to manage over \$2 billion in loans. The financial system is now able to capture detailed and accurate accounting of all WIFIA loans and reduce loan credit costs and financial reporting. To improve payroll management, OCFO launched a payroll dashboard and a performance dashboard to increase the availability of information and strengthen managers' decisions.

OCFO also led EPA's implementation of the new Foundations for Evidence-Based Policymaking

Act of 2018 (Evidence Act), including the cross-agency development of EPA's first-ever Learning Agenda (interim) and Capacity Assessment (interim), submitted to OMB in September 2020. These interim documents respond to Evidence Act requirements and specifically advance plans for foundational fact-finding, rigorous data analysis, and program evaluation for three Learning Priorities: workforce planning, drinking water systems out of compliance, and grant commitments met.

All OCFO employees have been trained in ELMS and 30 processes in OCFO have achieved at least 25 percent improvement; for example the Superfund billing process was reduced from 100 days to 72 days, improving resources and opportunities for the agency.



RISK COMMUNICATION

Since taking the helm of the agency, Administrator Wheeler has stressed the need for risk communication throughout every program. In 2018, EPA launched cross-agency initiatives to improve risk communication on emerging contaminant and vulnerable populations. The historic PFAS Action Plan released in 2019 is perhaps the best example of this initiative in action. The PFAS Action Plan outlines more than 20 key focus areas that include both short and long-term goals, and it is the agency's first multi-program, national research and risk communication plan.

In 2020, EPA deployed the agency's risk communication training platform. The program built at the agency encompasses more than traditional risk communication and encompasses the latest in science communication, decision and management sciences, and education research. This year EPA developed and

launched a premier, scientifically-grounded risk communication training platform and trained the first 100 staff participants. The 17.5 hour course covers governing principles from the science of science communication and the process for risk communication at EPA.

About the Course

Each class of the course is structured around a specific hazard, audience, or agency function with the goal of building knowledge, skills, and networks around best practice in risk communication at the agency. Classes completed as of December 31, 2020 have included those focused on community engagement in land and emergency management, the hazard of lead, and PFAS. Future classes are planned on topics including: community partnership in the context of environmental justice, wildfires and wildfire smoke, and improving tribal partnerships. By structuring courses topically, it builds linkages across EPA for risk communication practice to be supported and improved. Staff have been chosen to participate based on their roles communicating risk on these issues and topics and have included staff from every office and region with a strong focus on staff who do direct community engagement as a part of their roles. Future plans include cross-training partners from other agencies whether federal, state, local, or tribal.

Each training class includes four outside experts who work with participants in small groups to improve their ability to convey risk communication messaging improve partnership building and to generally better meet the needs of the American public. Outside experts who have participated so far are representatives from EPA's audiences including community members impacted by environmental hazards, journalists, state and local government officials, environmental policy experts, and public health officials.

This project has embedded plans to do a deeper evaluation to learn about impact and improve delivery overtime.



REGION 1

Alongside six states and 10 tribal nations, Region 1 works to protect public health and the environment throughout New England. EPA New England has made significant progress supporting communities as they reinvest in their local economies, deploy new public health protection programs, and develop innovative approaches to promoting clean air and water.

Clean Air

In 2020, New England saw a continued decline in the number of unhealthy air quality days. Based on data collected between March and September 2020, Region 1 tallied only 18 days with unhealthy levels of ozone. By contrast, in 2019 there were 23 such days, and in 1983, there were 118 such days.

To further improve air quality, EPA recently loaned nine air sensors to the Massachusetts Department of Environmental Protection. Working with local leadership, these sensors will be placed throughout the community and will help the commonwealth plan for a permanent monitoring site.

In Rhode Island, the Port of Providence was one of 11 sites selected by EPA to launch a community-scale air toxics monitoring program, designed to characterize toxic emission risks to the surrounding community, including local schools and hospitals.

Across New England, the region continued to build upon the success of its 2018-launched initiative helping refrigeration facilities improve compliance with the General Duty Clause of Section 112(r) of the Clean Air Act at small ammonia refrigeration systems.

In 2020, Region 1 celebrated several diesel engine emission reduction grants; these projects typically include retrofitting or replacing vehicles with legacy engines (such as buses, locomotives, port equipment, cranes, or marine vessels) with new, cleaner technologies. This year, the Region

issued \$4,835,644 in grants to fund projects and programs that will help reduce diesel emissions in Connecticut, Massachusetts, and Rhode Island.

In addition to these national grant awards, EPA has allocated, under the 2020 State Grants Program, \$2,672,263 to the six New England states to support their diesel emissions reduction efforts.

Region 1 Smart Sectors: Supporting Clean Ports

Under EPA's Smart Sectors program, Region 1 has been finding innovative solutions to pollution challenges in the Food & Beverage, Outdoor Recreation, and Maritime Industries Sectors. EPA's DERA grants and community air toxics programs, which directly help port facilities measure and mitigate pollution, are part of this effort.



Regional Administrator Dennis Deziel celebrates DERA grants with Massports Port Director Mike Meyran at Conway Terminal.

Supporting Science and Innovation

In 2020, Region 1 supported several new pollution prevention programs across New England. In Maine, New Hampshire, Connecticut, and Rhode Island, EPA is supporting technical assistance and on-site training in the food and beverage industry, helping private enterprises reduce energy and water demand, while also finding ways to eliminate hazardous chemical use in manufacturing.

Region 1 continued its support for the Trump

Administration's PFAS Action Plan. In Vermont, EPA launched a new project with the state to help metal manufacturers and aerospace facilities reduce PFAS levels in process wastewater. In New Hampshire, EPA researchers made progress tracking PFAS from Merrimack-area sources, including local air emissions. Along with ORD, Region 1 also held a "State of the Science" webinar series on critical scientific PFAS updates to 470 professionals from state and tribal government partners.

In support of park and campground managers across New England, as part of the region's Outdoor Recreation Smart Sectors initiative, EPA held a webinar series exploring best practices for tick and mosquito prevention and control reaching more than 650 land managers.

Clean Water

Through its two flagship State Revolving Fund (SRF) programs, Region 1 provided over \$200 million to the six New England States in 2020. Through the CWSRF, funds can be used for a wide range of needs, including wastewater infrastructure and water reuse. The DWSRF helps fund treatment systems, remove lead lines, and improve system resiliency. Since the launch of these programs, Region 1 has provided approximately \$5.5 billion for SRF programs, leveraging over \$16 billion in additional financial assistance for clean water and drinking water infrastructure regionwide.

Through the WIIN Act, EPA also helped finance several projects to improve drinking water testing and safe water access in schools and child care facilities. And under WIFIA, Region 1 announced a \$190 million loan to the Narragansett Bay Commission for use improving resiliency at a coastal wastewater facility.

In 2020, across New England's watersheds and waterways, Region 1 helped foster important advances in clean water. In the Long Island Sound watershed, Regions 1 and 2 announced \$3.8 million in funding for projects targeted at improving ecosystem health and water quality. Though the Southeastern New England Program, EPA announced \$1.8 million in new funding

aimed at helping local communities meet their clean water goals. Over the past six years, \$30 million in such grants made dozens of innovative projects across Massachusetts and Rhode Island possible. In Vermont's Lake Champlain, a similar program is helping tackle stormwater management planning and control invasive species.

This year, Region 1 also proudly finalized a new dredged material placement site off the coast of New Hampshire, finalized over a dozen new CWA permits, proposed improved language in two stormwater general permits affecting hundreds of communities across two states, and announced the finalization of an alternative total maximum daily load (TMDL) for the Mystic River. The region also celebrated Vermont's completion of the first phase of the Lake Champlain TMDL implementation plan.

Community Revitalization

In 2020, Region 1 launched a new initiative to support remediation and reuse of historic mills. Leveraging Brownfields funds, Opportunity Zones incentives, Superfund removal program assistance, and other technical assistance programs, historic mills around the region are being rebuilt to provide new housing, jobs, and industries. In Biddeford, Maine, reuse of historic mills saw \$10 million in EPA funds generate over \$224 million in private investment.



RA Deziel tours the Woonsocket, Rhode Island historic mill district.

In FY 2020, Region 1's Brownfields program awarded \$7.2 million in grants to support

communities cleaning up contaminated sites. Since the program was first launched, almost \$460 million in Brownfields funding to New England communities drove over \$3.62 billion in additional public and private investment and created over 22,800 remediation and redevelopment jobs.

Progress was also made at several key Superfund sites, especially in Massachusetts. In Wilmington, EPA released a proposed \$45 million cleanup plan to address soil, surface water, and groundwater contamination at the Olin Chemical site, one of the facilities on the AEL. And in New Bedford Harbor, after 17 years of dredging, the region completed subtidal harbor remediation after removing 1 million cubic yards of sediment contaminated with PCBs.

The region also reached an historic milestone for PCB remediation work needed in the Housatonic River. In February 2020, EPA, General Electric, five Berkshire towns, and a host of other interested parties finalized a settlement agreement resolving long-running litigation over plans for remediation of this “Rest of River” site. Pursuant to that settlement agreement, EPA is in the process of finalizing public review of cleanup plans.

Revitalization in Portland, Maine

In August 2020, Administrator Wheeler visited Portland, Maine to celebrate a series of successful waterfront revitalization projects. Located in an Opportunity Zone, EPA joined the Maine Port Authority to tour the site of a planned new cold storage and seafood processing facility where a former manufactured gas plant had operated for several decades.

At Thompson’s Point, a former railyard, \$1.8 million in Brownfields funds leveraged over \$30 million in additional private investments in redevelopment, opening the door for several new enterprises and providing the community with an ideal new location for the Children’s Museum and Theatre of Maine.

Under President Trump, EPA has awarded \$12.2 million in competitive Brownfields grants to the

State of Maine. During that same time period, EPA grantees have assessed 206 sites and cleaned up 26 sites across the state. Long term EPA investment in Maine has resulted in 192 properties being made ready for reuse, \$453 million in additional leveraged funds, and 3,777 jobs.



REGION 2

Serving New Jersey, New York, Puerto Rico, the U.S. Virgin Islands, and eight Indian nations, Region 2 saw numerous successes in waste management and land revitalization this year. Challenges ranged from hurricane and earthquake damage in the Caribbean to chemical contamination of residential, commercial, and industrial sites in the urban northeast.

In 2020, Region 2 had particular success playing its part in implementing the EPA’s Brownfields program, cleaning and transforming once-vacant properties into community assets, often for economically disadvantaged neighborhoods.

New York

In New York, nine counties or municipalities were selected to receive more than \$3 million to assess and clean up contaminated properties through Brownfields Program grants. Six of them received Brownfields Assessment Grants, which will be used to inventory and identify sites for assessment, to assess sites for hazardous substances, to complete cleanup and reuse plans, and to carry out community outreach activities.

The Broome County Industrial Development Agency received a Brownfields Assessment Grant targeting a former tannery and industrial waste dump, a former shoe factory, and a former auto dealership in the Susquehanna Innovation Corridor. The City of Glens Falls received a grant targeting the city’s Gateway Industrial

Corridor, which is home to at least 12 vacant and underused paper, cement, and pigment factories, and more than 20 shuttered service businesses.

For Brownfields Cleanup Grants, EPA gave the City of Rochester \$408,000 to clean up petroleum contamination at two locations. In addition to the cleanup, grant funds will be used to complete a groundwater monitoring program to evaluate the effectiveness of the cleanup and to develop community outreach activities. The Sullivan County Land Bank Corporation also received \$500,000 to clean up a 5.6-acre site contaminated with petroleum from leaking aboveground and underground storage tanks, inorganic contaminants, and heavy metals.

Wayne County was given \$600,000 Brownfields Assessment Coalition Grant targeting former industrial, manufacturing, and utility businesses in the Towns of Arcadia and Lyons and the Village of Newark. Over 200 years of heavy industry in the areas have left a legacy of contamination, including a 157-acre former fuel storage and maintenance shop and a former photo etching company. Coalition partners are the Wayne County Regional Land Bank, the Wayne Economic Development Corporation, the Towns of Arcadia and Lyons, and the Village of Newark. Grant funds will be used to inventory and identify sites for assessment, to assess sites for hazardous substances, to complete cleanup and reuse plans, and to carry out community outreach activities.



Regional Administrator Pete Lopez tours local Brownfields in Herkimer County, New York.

New Jersey

In October 2020, EPA selected the Newark Board of Education to receive nearly \$7.5 million in federal funds to combat lead in Newark schools. This grant will help fund the Newark Safe Water Initiative, which improves public health by reducing sources of lead in school drinking water to benefit more than 36,000 students in pre-Kindergarten through 12th grade and nearly 6,000 employees in 64 schools.

In May 2020, the New Jersey Economic Development Authority, the City of Camden, Cooper's Ferry Partnership, Inc., and the City of Jersey City were selected to receive more than \$2 million to assess and clean up contaminated properties. New Jersey Economic Development Authority received an \$800,000 Brownfields Revolving Loan Fund Grant to provide low-interest loans and sub-grants to carry out cleanup activities at Brownfields sites in 12 communities. The City of Camden will use a \$500,000 Brownfields Cleanup Grant to clean up heavy metal and semi-volatile and volatile organic compound contamination at the former Borden Chemical Site at 1625 Federal Street. EPA also selected Cooper's Ferry Partnership Inc. in Camden, New Jersey, for nearly \$300,000 to assess properties in the North Camden neighborhood within the City of Camden, which includes 80 acres of suspected Brownfield sites along the waterfront. Jersey City plans to use a \$500,000 Brownfields Cleanup Grant to clean up Mill Creek at the southern end of Jersey Avenue.

The Caribbean

In August 2020, top EPA officials traveled to the U.S. Virgin Islands (USVI) and Puerto Rico to highlight EPA's commitment to supporting recovery in the Caribbean and award \$10 million in critically needed funding EPA to USVI for hazardous and solid waste management assistance.

Officials then visited Puerto Rico, where they announced new EPA Circuit Rider assistance for community systems. They joined NGOs and local partners at the Cañaboncito and Pedro Calixto Community Water Systems in Caguas to announce technical support for 45 community-

owned drinking water systems in rural Puerto Rico. Even before the 2017 hurricanes and subsequent earthquakes, these systems faced severe economic and technical challenges providing water to their communities.

Toa Alta, Puerto Rico was selected to receive \$300,000 to assess and clean up contaminated properties under the agency's Brownfields Program. Toa Alta will use the grant to target the 35-acre former Industrial Zone, including four vacant and hurricane-damaged former industrial sites and a vacant gas station. Grant funds will be used to inventory and identify sites for assessment, to assess sites for hazardous substances, to complete cleanup and reuse plans, and to carry out community outreach activities.



REGION 3

From cleanup milestones at Superfund sites and communities benefitting from Brownfields redevelopment to significant air and water quality improvements, EPA Region 3 and its partners marked EPA's 50th Anniversary in 2020 with sustained actions to promote cleaner land, air, and water. Perhaps most closely associated with the beauty and resources of the Chesapeake Bay, Region 3 includes Delaware, the District of Columbia, Maryland, Virginia, Pennsylvania, and West Virginia.

Chesapeake Bay

The Chesapeake Bay Program is observing the highest rate of attainment with water quality standards in more than 30 years. Consequently, underwater grasses are thriving, the blue crab population is healthy and sustainable, and overall water quality has improved. Recent aquatic surveys confirm that the efforts of EPA and its partners, along with other factors, have helped to reduce the bay's anoxic dead zone in 2020 to one of the smallest in 35 years. There is still

much to do to reach our goal of a restored bay. However, as a result of EPA's expertise and major financial and technical support over the years, the environmental health of the Chesapeake Bay has seen real improvement.

Superfund & Brownfields Revitalization

During July's 50th Anniversary theme of "Cleaning up our Nation's Lands," Region 3 partnered with local representatives in Portsmouth, Virginia, to host an event at the Atlantic Wood Industries (AWI) site. The event provided an opportunity for local leaders, EPA, state, and non-profit partners to tout the incredible cleanup progress at the site, which has resulted in valuable land reuse and job creation. Alongside the successful redevelopment of the AWI, Region 3 also celebrated the rehabilitation of the former Nansemond Ordnance Depot site in Virginia.



Regional Administrator Cosmo Servidio and Portsmouth, Virginia Mayor John Rowe celebrate the federal, state, and local work done to cleanup the Atlantic Woods Industries Superfund Site.

By the end of September, the Region 3 Brownfields program issued more than \$121 million in grants to communities; assessed over 1,600 sites; cleaned up more than 110 contaminated properties; created more than 15,600 jobs; and leveraged close to \$4.5 billion in additional public and private investment.

Clean Air Toolkit

After two years of intense evaluation, application

of Lean management continual process improvement, and collaboration with state, local, tribal, and private stakeholders, a team of Region 3 Air Division employees developed a user-friendly toolkit to reduce the processing time involved in reviewing and completing action on state plans to comply with the Clean Air Act. Unveiled recently by EPA to state and local partners nationwide, what is formally called the SIP Lean Toolkit provides a highly accessible collection of curated guidance, helpful checklists, and document templates. It ultimately equips multiple end-users with an important resource to ensure Clean Air Act regulations are met.



Regional Administrator Cosmo Servidio joins West Virginia Governor Jim Justice and West Virginia Department of Environmental Protection Secretary Austin Caperton to celebrate the attainment of statewide NAAQS for the first time since 1978.



REGION 4

Region 4 serves Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, and six tribes. The southeastern United States is a fast-growing region and home to 20 percent of the nation's population. Much of Region 4's work focuses on the health and safety of the Gulf of Mexico watershed within the continental U.S.

Gulf of Mexico Division and Water Division

Every year, an estimated 11 to 28 billion pounds

of waste ends up in the ocean, harming marine life and coastal economies. Since the Trash Free Waters program began, EPA has awarded \$5.35 million for 14 projects in communities across the Southeast. Some remarkable results have been achieved, including the removal of more than 24,500 pounds of trash from Gulf waters and watersheds. In FY 2020, Region 4's Gulf of Mexico Division awarded more than \$7.8 million in grant funding to 17 recipients for innovative projects focused on reducing the amount of trash in waterways through trash prevention and/or removal. In October 2020, EPA announced an award of \$200,000 to the Mississippi Band of Choctaw Indians to install a Bandalong litter trap for the Kentawka Canal—the first Trash Free Waters grant awarded to a tribe.



The Mississippi Band of Choctaw Indians received a \$200,000 Trash Free Waters grant to keep trash out of the Kentawka Canal.

EPA's Farmer to Farmer program is designed to support farmer-led or farm focused organizations working to reduce nutrient pollution resulting from excess nitrogen and phosphorous in our water and air. Since 2017, EPA has awarded over \$9.5 million to projects with a variety of partners to show nutrient reduction progress in the Mississippi-Atchafalaya River Basin. In FY 2020, EPA's investment is \$10 million with an anticipated 12 recipients.

Since 2015, the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States (RESTORE) Council has approved 60 projects valued at \$361.98 million. These projects address a variety of coastal issues affecting the five Gulf Coast states of Alabama, Florida, Louisiana, Mississippi, and Texas, including nutrient pollution, habitat fragmentation, and degradation along the coastline.

EPA funding for restoration work through the South Florida Geographic Initiative has greatly increased—more than doubling from 2019 to 2020—from \$1.5 million to \$4.8 million. Since 2016, the EPA South Florida Geographic Initiative has awarded more than \$6 million to state and local governments; universities, and non-governmental organizations for water quality, corals and seagrass monitoring programs; coral disease response; developing outreach activities such as boater education and citizen monitoring programs; and management plan development to improve water quality in residential canals.

Superfund and Emergency Management

Through programs like the Superfund Redevelopment Initiative, EPA Region 4 helps communities reclaim cleaned-up Superfund sites. On-site businesses and organizations at current and former Region 4 Superfund sites provide an estimated 19,622 jobs and contribute an estimated \$1.3 billion in annual employment income. Sites in reuse and continued use in Region 4 generate \$10 million in annual property tax revenues for local governments. A great example is the City of Orlando's successful partnership with federal, state, and local stakeholders at the former Naval Training Center (NTC) Orlando. Having served as an Army and Navy air training facility since the 1940s, this 2,000-acre site closed in 1999 under the Base Realignment and Closure program. The team's efforts in promoting public and private investments resulted in a renewed area consisting of a mixed-use, master-planned community, industrial facility and recreational spaces. Due to collaborative efforts, the former NTC Orlando site has become an economic asset to the City of Orlando and the partnership between agencies was awarded an EPA 2020 National Federal Facility Excellence in Site Reuse Award.

NPL deletions pave the way for accelerated cleanups and reuse at Superfund sites across the Southeast. Region 4 continues to lead the nation in site deletions each year. Between 2018 and 2020, the region exceeded the deletion target of seven and fully or partially deleted 17 sites from NPL.

Region 4's Brownfields program consistently performs in the top tier of this critical assessment and cleanup program across the nation. Since 2017, Region 4 remains at the top among the 10 EPA regions in Brownfields assessments completed and in returning land to beneficial reuse. For five out of the past six years, Region 4 has leveraged over \$500 million annually.

Region 4 partnered with the Federal Emergency Management Agency (FEMA) and other state, federal and university partners to support physical and economic recovery in the Florida Panhandle following Hurricane Michael. Through EPA's support of FEMA's Recovery and Resiliency Partnership Project, the North Florida communities of Quincy, Springfield, Chattahoochee, Marianna, Parker, and Mexico Beach received technical assistance to develop strategies and design concepts that bolster resiliency to stormwater impacts, improve quality of life, and support sustainable redevelopment. These efforts will help advance each city's vision for long-term economic recovery by developing design concepts and strategies that integrate recreation, stormwater management, community connectivity, and downtown development.



Administrator Wheeler, Regional Administrator Mary Walker, and the Florida Department of Environmental Protection celebrate Florida's attainment of statewide NAAQS.

Improving Air Quality

Region 4 had another successful year in reducing emissions with DERA grants. The program completed four grants that involved almost \$5 million worth of federal funding and leveraged almost \$18 million in matched contributions to replace 241 school buses. The lifetime reduction

in emissions will help to continue to protect children's health in the communities across the southeast.



REGION 5

The Great Lakes form the largest surface freshwater system on Earth. EPA leads U.S. efforts to restore and maintain the quality and ecosystems of the Great Lakes watershed, and Region 5 is dedicated to safeguarding both a healthy environment and healthy economy for the Great Lakes region.

In FY 2020, Region 5 worked hard to provide regulatory certainty to businesses, tribes, and governments throughout the Region's six states of Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. Certainty from regulators gives the American public the ability to do what they do best: innovate, create, and produce cleaner and safer technologies. FY 2020 was filled with accomplishments for Region 5 as leadership and staff continued the efforts of the last four years to achieve cleaner air, water, and land, while also promoting economic revitalization in the Great Lake states.

Restoring the Great Lakes Watershed

A highlight of the year that demonstrated significant success in restoring our Great Lakes was the official delisting of the Lower Menominee River Area of Concern in August. This was the fifth area of concern to be delisted in our nation's history—and the first in Wisconsin. Contaminated river sediment and degraded habitat had impaired public benefits such as healthy fisheries, uncontaminated shipping channels, and wildlife habitats. Over \$170 million was invested in the restoration effort. Great Lakes Restoration Initiative (GLRI) funding provided \$28 million for habitat and sediment projects, leveraging \$15 million from non-federal sponsors.



In FY 2020, EPA Region 5 removed eight beneficial use impairments at seven areas of concern in five states. A beneficial use impairment removal signifies a reversal in the environmental degradation that caused these areas to be designated as an area of concern, and it signals that a site is one step closer to delisting. With this year's actions, cumulative beneficial use impairment removals since the start of the GLRI in 2010 have now reached a total of 87.

Reducing excess nutrients and sediment throughout the Great Lakes Basin is a major priority for EPA and our partners. To make progress towards that goal, while also promoting innovation and best practices, Region 5 awarded nearly \$11 million in GLRI funding for 20 nutrient-reduction projects. This included the very first EPA competitive grant opportunity for innovative market-based projects under the GLRI program designed to accelerate nutrient reduction efforts in the Great Lakes Basin.



In another major accomplishment, through its work in the Great Lakes National Program Office, Region 5 helped execute Administrator Wheeler's Great Lakes Trash Free Waters Program by awarding seven grants totaling almost \$2.1 million. These investments will support community efforts to remove trash from Great Lakes beaches and waterbodies.

Attainment Redesignations

While region leadership is proud of their achievements in cleaner water, nowhere was Region 5's accomplishments more impactful on human health than in its contributions to cleaner air. In 2020 alone, Region 5 completed nine air quality redesignations, more than a third of the nation's total. By implementing the Region 5 Clean Air Strategy, almost 800,000 Midwest residents are now breathing cleaner air. With these improvements, local businesses in these communities will face a more straightforward permitting process that will pave the way for economic development and job creation. This administration has prioritized these efforts, with an understanding that a healthy environment, especially clean air, is a precursor to a healthy economy.

Revitalizing Land

Through partnerships with state and local agencies and clear coordination and communication with industry partners, Region 5 continued to help lead the nation in site cleanups that allow land to be repurposed and reused in more productive ways. This year, Region 5 exceeded all of its EPA Brownfields program goals, which translates to preparing 188 properties to meet ready-for-anticipated use requirements, assessing 417 properties, and cleaning up 17 properties. The region also invested \$9 million in Opportunity Zones through the Brownfields program. This funding will spur economic and redevelopment opportunities in some of the most underserved communities in the region.

Through its effective partnerships, Region 5 was able to successfully delete eight sites off the NPL and complete work at the Fox River site in Green Bay, Wisconsin, the largest Superfund

sediment cleanup project. At the request of Illinois EPA, Region 5 assumed the lead of the DePue Superfund site this year as well. Despite work delays due to COVID-19, remediation was completed at all public spaces, including a school and parks, and approximately 100 priority residential homes.

Partnering with the Agriculture Community

During 2020, Regional Administrator Kurt Thiede sat down in machine shops in every Region 5 state to hear directly from Farm Bureaus and farmers about challenges and successes. These opportunities resulted in better partnerships, and a commitment to sharing information about conservation practices. These best practices allow farmers to protect their environment and communities, while simultaneously operating their farms in a more efficient manner.



Serving the south-central United States, Region 6 continued to do the important work of protecting the environment and human health despite the challenges responding to a busy hurricane season. Region 6 represents the states of Arkansas, Louisiana, New Mexico, Oklahoma, and Texas, as well as 66 tribal nations.

This year, Region 6 prepared well in advance of hurricane season and other emergency situations to overcome the unique challenges of COVID-19. During Hurricane Laura, Region 6 held virtual Regional Incident Coordination Team meetings and virtually staffed the Regional Emergency Operations Center (REOC) in Dallas, Texas, the FEMA Regional Response Coordination Center in Denton, Texas, and the Interim Operating Facility in Baton Rouge, Louisiana. In Louisiana, the incident management team (IMT) and REOC staff virtually managed deployment of the Airborne Spectral Photometric Environmental Collection Technology (ASPECT) aircraft to conduct air

monitoring at the BioLab facility fire; deployed the Region 7 Mobile Drinking Water Lab to support state and local officials with water analyses; and deployed four EPA Drinking Water and Wastewater Subject Matter Experts to Baton Rouge to assist FEMA. In Texas, the IMT and REOC staff virtually managed deployment of the ASPECT aircraft and the Trace Atmospheric Gas Analyzer bus, along with ground teams, to conduct air monitoring in communities near impacted industrial facilities.



Region 6 mobile command post on deployment.

Cleaner Land

Region 6 had a number of other successes in emergency management and site cleanups in 2020.

Region 6 completed an extensive cleanup at the former B.F. Goodrich Asbestos site in Miami, Oklahoma, addressing approximately 24,000 tons of asbestos-containing materials. In addition, EPA removed waste oils, hydraulic fluids, thousands of fluorescent bulbs, and an assortment of other hazardous materials.

Region 6 also executed a Bona Fide Prospective Purchaser Agreement for the Conroe Creosoting Superfund site in Conroe, Texas. The final agreement paved the way for a massive Home Depot distribution center to be built on the 147-acre former wood treating site. The distribution center will create hundreds of construction jobs, employ approximately 50 permanent jobs, and pump more than \$80 million into the local economy.

Over the past four years, EPA has awarded 36 Brownfields grants totaling over \$14 million

to Region 6 states, tribes, and local entities. This funding enabled improvements to spaces that were underutilized, allowing communities to make long-desired improvements. The Hall Davidson Building became the AC Hotel in Little Rock, Arkansas. A run-down area in Louisiana became Shreveport's Cultural District. A property that received a Phase I environmental site assessment, enabling it to be donated for a Salvation Army shelter for Women and Children in Austin, Texas. The 40-acre Upper Scissortail Park was developed on a former industrial area in Oklahoma City.

The Evans-Fintube site was a scourge on the City of Tulsa. Evans-Fintube was used as a steel foundry and forge from 1939 through 1962. The 23-acre property had a concrete reservoir, forge, welding, and fabrication shops. This blighted property included asbestos, polychlorinated biphenyls (PCBs), lead, and soil and groundwater contamination. Redevelopment is finally occurring on this property. EPA invested \$950,000 in this property and anticipates leveraging approximately \$23 million once the project is completed.

Action at the Border

Serving Texas and New Mexico, Region 6 plays an important part in managing our nation's southern border. Over the past four years the imports program received 44,891 Notice of Arrivals (NOAs). Of these NOAs, 85 Notice of Refusal of Admissions (NORAs) and 13 Compliance Actions were filed. These enforcement actions ensured 2,005,290 pounds of pesticidal products either entered U.S. commerce legally or were prevented from entering the country. Two of these NORAs (170,086 lbs) were specifically for products claiming effectiveness against the coronavirus, specifically SARS-CoV-2.

Since 2017, the U.S.-Mexico Border Program awarded \$928,000 in grant funds, supporting 20 projects along the Texas and New Mexico border communities (including Chihuahua, Coahuila, Nuevo Leon, and Tamaulipas) benefitting more than 15 million border residents. This program was able to provide for clean air, reliable drinking water and sanitation, and safe handling of hazardous waste through use of best available

technologies to improve human health and environment in both sides of the border.

This year, Region 6 completed a challenging sediment remedy at the Donna Canal Superfund Site in South Texas near the U.S. border with Mexico on-time and under-budget, despite the onset of the COVID-19 pandemic halfway through the project. The project involved the excavation of 24,788 tons of contaminated sediment from the Donna canal system. The sediment was removed from a half-mile section of the canal with the highest concentration of PCBs.

Region 6 also completed construction of three U.S.-Mexico Border projects to address drinking water and wastewater infrastructure and disbursed nearly \$7 million to assist U.S.-Mexico Border communities with water infrastructure needs, which will result in over 16,000 border residents receiving reliable wastewater collection and treatment.

Air and Radiation

In September 2020, Region 6 completed its four-year long ambient air monitoring program for chloroprene in the neighborhoods surrounding the Denka Performance Elastomer, LLC (DPE), facility in LaPlace, Louisiana. Since March 2018, following the implementation of emission controls being installed by DPE, chloroprene emissions have been reduced by 85 percent and EPA air monitoring data have shown corresponding significant reductions of chloroprene concentrations in the community.

Wastewater Compliance Pilot Project

Region 6 and OECA partnered with the Arkansas Department of Energy and Environment (ADEE, formerly ADEQ) as part of the pilot for the wastewater treatment plant Circuit Rider Assistance Program. The EPA and contracted Circuit Riders support this National Compliance Initiative by providing direct technical compliance assistance to operators of small wastewater facilities in 10 Arkansas communities.



REGION 7

Region 7 protects human health and the environment in our nation's agricultural heartland. Its responsibilities encompass the Sandhills of Nebraska, Flint Hills of Kansas, Mississippi river, prairies and plains of Iowa, and forests and river delta of Missouri, as well as the lands of nine tribal nations.

St. Louis Carter Carburetor Superfund Site Cleanup

Over 100 years have passed since the Carter Carburetor Corporation opened its doors as a manufacturing plant in St. Louis. In 1984, following a shift in the automotive industry, the facility shuttered for good. The property sat vacant for years until the EPA addressed environmental contamination at the site. What was once an environmental hazard will now serve the Boys & Girls Club as a youth golf training and mentoring facility. The 10-acre site sat idle for 30 years before cleanup work began in 2013. Contaminants found at the Superfund site included PCBs, trichloroethylene (TCE), and asbestos. Demolition and removal of the buildings began in 2015. EPA and ACF Industries, the potentially responsible party, completed site work in May 2020.



Administrator Wheeler, Regional Administrator Gulliford, Congressman Lacy Clay (MO-01), Boys & Girls Club of Greater St. Louis president Flint Fowler, St. Louis Cardinals Hall of Famer Ozzie Smith celebrate cleanup at the Carter Carburetor Superfund site.

Combatting Harmful Algal Blooms

In Region 7, HABs pose a significant threat to waterways and the region has identified two main priority areas to address the issue. First, Region 7 will conduct and support research on HABs to better predict and prevent their occurrence. This will provide information to the public and agricultural stakeholders on how to identify and report them and allow the agency to better respond rapidly to state, tribal, and community requests for technical assistance. Second, the region will seek, develop and support nutrient reduction strategies and practices, including market-based approaches such as water quality trading.

Region 7 has been involved in numerous partnerships to address the problem. This includes a partnership with scientists at the University of Kansas (KU) to study these blooms in Kansas, which has some of the most toxic blooms in the region. Together with scientists from Kansas Biological Survey and the University of Missouri, EPA scientists collaborated on the Milford Blooms Tank Research Project at the KU Field Station in Lawrence, Kansas. By observing the blooms they hope to better learn how to predict them in the future. Accurate bloom prediction helps scientists warn the public about potential health risks and increases the amount of time available for treating affected areas before blooms grow out of control.

Additionally, Region 7 scientists traveled to Milford Lake in north-central Kansas in late July 2020, in coordination with the State of Kansas, to conduct a peroxide treatment. Peroxide breaks apart the cyanobacteria cells but maintains the health of other species in the lake.

Partnership with Faith-Based Organizations

In response to a request for assistance from Administrator Wheeler, Region 7 joined forces with Region 5, the Office of Environmental Justice, Office of Pollution Prevention and Toxics, and local utilities to provide St. Louis area faith-based organizations with information on energy efficiency and eco-friendly practices in houses of worship.

The interagency workgroup developed and presented a three-part webinar series in September 2020, garnering participation from nearly 50 churches and faith organizations in the St. Louis area. Topics included energy conservation strategies, local energy conservation resources and funding opportunities, and indoor environmental health concerns.

In offering this free webinar installment, EPA provided faith-based organizations with tangible actions that will help them lower their utility bills, conserve energy, and promote safe and eco-friendly building maintenance. Many houses of worship were built decades or even over a century ago and may benefit from upgraded, energy-efficient technology. They may also contain environmental conditions that pose increased risks to the health of congregants and staff. Region 7 staff are now leading follow-up discussions with participants regarding additional steps that can be taken to address environmental and health concerns in places of worship.



Administrator Wheeler meets with faith leaders in St. Louis, Missouri in September 2020.

Des Moines Superfund Site

In Iowa, decades of blight and uncertainty are coming to an end as the City of Des Moines agreed to take ownership of the Des Moines TCE Superfund Site, known locally as the Dico site. This agreement is a major milestone that continues protection for the city's water supply and moves the site one step closer to productive reuse for the citizens of Des Moines. As a signatory to the settlement, the City of Des Moines will accept the property title, and Dico

will transfer the property at no cost to the city. In exchange for the property, the city will operate and maintain the groundwater remediation system; maintain the asphalt cap (or enhance the existing cap with the addition of several feet of clean fill material); and implement land use controls to protect those on-site from any potential exposures.

The settlement represents a win, not just for EPA, but also for Des Moines citizens and American taxpayers. After almost a decade of contentious litigation, the U.S. will receive \$11.5 million from Dico/Titan in a settlement of the judgments owed to the U.S. With the funds, a special account will be established with \$2.9 million for EPA to conduct necessary site cleanup work. The remaining \$8.6 million will go to the Hazardous Substance Superfund.

The Dico site is appropriate for various types of reuse, which the city will ultimately decide. The remedies in place and institutional controls on the site will ensure protection from potential exposures. EPA will work closely with the city to ensure the protectiveness of the planned reuse and ensure that it is compatible with the environmental protection remedies in place.

Kansas City, Kansas, Combined Sewer Operation

In 2020, EPA, the Unified Government of Wyandotte County and Kansas City, Kansas, and the State of Kansas reached agreement on a novel and innovative adaptive management approach to sewer overflow remedial work. This groundbreaking settlement is the first of its kind. This win-win approach to structuring these massive infrastructure improvement settlements provides flexibility to the Unified Government to redesign and swap projects over the 25-year life of the deal as it learns and as technology changes, while ensuring through performance criteria that environmental progress is maintained. Under the settlement, raw sewage discharges will be reduced by 85 percent (millions of gallons per year) at an estimated cost of \$900 million.



REGION 8

Working on and in the shadow of the Rockies, Region 8 is the land of mountains and plains. Serving the communities of Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming, and 28 tribal nations, Region 8 saw major progress in 2020, especially in cleaning Brownfields and Superfund sites.

Brownfields Program Accomplishments

In 2020, Region 8 enabled 82 underutilized and contaminated Brownfield properties to be made Ready for Anticipated Use. Across Region 8, leveraged \$290 million in local investments in support of Brownfields initiatives. Representing four Region 8 states, 82 percent of competitive Brownfield grants awarded include Qualified Opportunity Zones. Region 8 also completed eight Brownfields cleanups on tribal lands. Moreover, Region 8 completed 115 Targeted Brownfields Assessments (TBAs) this year in support of 29 separate communities. More than 50 percent of TBAs were performed in Indian country. The TBA program also supports non-profit organizations focused on developing affordable housing and food banks. Six TBAs advanced the siting of new community gardens; these included urban gardens in the Denver area and a vegetable garden at a tribal assisted living facility.

In May 2020, the City of Kalispell, Montana and EPA removed canopies, fuel dispensers, underground storage tanks, and associated piping and sampled the soil to address contamination and begin the transformation of the former CHS Country Store. The project is among \$1.4 million in EPA Brownfields property assessment and clean-up activities that are helping the city advance its transformative Kalispell Core and Rail Redevelopment Plan.

In June 2020, the Standing Rock Sioux Tribe completed the cleanup of asbestos and mold contamination at the Old Sitting Bull College in Fort Yates, North Dakota. The tribe used a \$200,000 EPA Brownfields grant to pay for the cleanup. The tribe will safely demolish the

building to make way for redevelopment.

Superfund Accomplishments

On October 23, 2020, EPA, along with the U.S. Department of Justice, and in collaboration with Montana Department of Environmental Quality (DEQ), announced the lodging of the 2020 Partial Consent Decree for the Anaconda Smelter Superfund site with the U.S. District Court. This document provides for the continued cleanup of copper smelting-related contamination to protect public health and the environment in Anaconda-Deer Lodge County. The consent decree requires Atlantic Richfield to take actions to remediate surface water and smelter slag piles at the Anaconda site. Earlier in October, EPA also announced the partial deletion of three operable units from the NPL site after completing cleanup and establishing development guidelines that allow these sites to be reused.



EPA Deputy Associate Administrator Doug Benevento, Senator Steve Daines (R-MT), and Anaconda/Deer Lodge County Chief Executive Bill Everett participate in a groundbreaking ceremony in Anaconda, Montana in October 2020.

After more than 20 years in operation as EPA's field office in Libby, Montana, the Libby Information Center closed in October. This action reflects the significant progress that has been made to complete actions and agreements that address asbestos exposure and protect human health and the environment, including the removal of a total of more than one million cubic yards of contaminated soil from the community and nearby areas since 1999. On May 26, 2020, EPA announced the deletion of Operable Unit (OU) 1 from the NPL. This is the second deletion of an operable unit at the Libby Asbestos Site from the

Superfund list in two years, reflecting continued progress. In another major step forward, the Remedial Action Completion Reports for the residential and commercial areas of Libby and Troy, OUs 4 and 7, were signed on June 25, 2020.

On September 16, 2020, the Federal District Court of Montana approved a motion to enter the Butte Priority Soils Operable Unit consent decree and supporting documents, finalizing a long-awaited agreement on final remedial actions to be accomplished over the next several years in Butte and Walkerville, Montana. The agreement secures more than \$150 million in cleanup actions from Atlantic Richfield, which, along with the amended Record of Decision for the site, will advance the Superfund site deletion process for the Silver Bow Creek and Butte Area site by 2024. New aspects of the Butte Priority Soils cleanup will remove contaminated tailings at the Northside and Diggings East Tailings areas and along Silver Bow and Blacktail Creeks, will treat more contaminated stormwater and groundwater to keep that water out of the creeks, and will cap and revegetate additional mine waste areas on Butte Hill. The consent decree also sets aside 120 acres for connected greenways in Butte — natural park spaces with reconstructed wetlands, flowing water, abundant native plants, wildlife habitat, play areas, and interpretive features.

Cleaner Air Milestones in Utah



Regional Administrator Greg Sopkin joins Utah Governor Gary Herbert and Utah Department of Environmental Quality Director Scott Baird to celebrate air attainment in Utah.

On November 6, 2020, EPA and the State of Utah celebrated a clean air milestone with EPA's proposal to approve redesignation requests for the Salt Lake City and Provo fine particle nonattainment areas. These redesignations, if finalized, will mean that the Wasatch Front will no longer be classified as a non-attainment area after exceeding the standard for fine particulate pollution for 13 years. Over the past decade, EPA has awarded over \$12 million in grants to the Utah Department of Environmental Quality for projects to help reduce particulate forming pollutants. EPA's proposed redesignations include a proposed approval of maintenance plans and specific measures that will ensure the areas remain in attainment.

Earlier in the year, EPA recognized another air quality achievement for another criteria air pollutant, PM10, when the agency finalized the approval of redesignation requests for the Salt Lake County, Utah County, and Ogden City PM10 nonattainment areas. These approvals mean the Wasatch Front in Utah has attained the PM10 NAAQS based on certified air quality monitoring data from 2016 to 2018.

Cleaning Our Water

In March 2020, EPA Region 8 met with the Crow Tribe to discuss a long-standing non-compliant wastewater overflow near the Wyola community on the Crow Reservation. The overflow resulted from a failing wastewater lift station with inoperable pumps, a facility requiring electrical upgrades, and a lack of resources for facility upkeep. With direction and support from Regional Administrator Greg Sopkin, the Region 8 Water Division and the Enforcement and Compliance Assurance Division set up weekly meetings with the Crow Tribe leadership and representatives to find solutions to these concerns. As a result, the parties identified a 3-phase, team-based approach for a permanent fix to the wastewater facility, including a full renovation of the Wyola lift station, scheduled for completion in early 2021.

EPA Region 8 is supporting an innovative approach to reduce lead in drinking water for Denver Water's 1.4 million customers. When Denver Water exceeded the drinking water lead

action level in 2012, the utility needed to take concrete steps to meet Safe Drinking Water Act requirements and control lead corrosion. In 2020, EPA approved Denver Water's combined use of alternative treatment, lead service line replacements, and customer filters and developed reporting requirements and metrics that would help the utility measure the effectiveness of the approach over time. Denver Water estimates this approach will result in the permanent removal of approximately 64,000 lead service lines, protecting future generations of children. Lead levels are expected to be reduced by 40 to 50 percent overall and by 90 percent or more for homes where lead service lines are replaced. This alternative approach will also prevent an estimated 570,000 pounds per year of phosphorus from entering the watershed.



REGION 9

From the deserts of Nevada to the reefs and tropical forests of Hawaii, EPA Region 9 protects human health and the environment for the 50 million Americans who call the Pacific Southwest home—including 148 tribes and residents of the territorial islands.

U.S.-Mexico Border



Administrator Wheeler and Regional Administrator John Busterud visit the San Diego sector of the U.S. Border Patrol to discuss transboundary pollution and sewage issues.

Focused on protecting the air, water, and soil of an important part of the U.S.-Mexico border, Region 9 this year identified two projects to address Tijuana River transboundary pollution and engaged with stakeholders on additional projects pursuant to the U.S.-Mexico-Canada Trade Agreement. The region completed a \$10 million rehabilitation of the Poniente Collector and \$13 million improvement to the Tijuana River Diversion and Pump Station to end dry weather transboundary flows. It also completed \$12 million in wastewater treatment plant upgrades in southern Arizona. Under the Border 2020 initiative, Region 9 also awarded \$530,000 for eight additional projects.

Air and Water

In pursuit and protection of cleaner air, 2020 saw Region 9 act on 121 SIP submittals, which resulted in reduction of a SIP backlog from 181 to 140. It also finalized six Clean Air Act Tribal New Source Review permits. Additionally, regional efforts funded more than 3,000 cleaner pieces of equipment and managed \$100 million in clean air technology projects.

To care for Region 9's water, EPA reduced the new Underground Injection Control permit backlog by 50 percent, with six permits issued in California. After developing a Drinking Water Action Plan to reduce health-based violations, the region achieved a 13 percent reduction. Region 9 also awarded more than \$500 million in grants to states, tribes, and territories. This included \$7.3 million for lead testing at school and child care facilities, and \$339 million to State Revolving Fund programs, \$42 million of which went to California fire disaster relief.

Land Management and Emergency Response

As part of EPA's Superfund efforts, Region 9 completed 13 removal actions and continued longer term work to safeguard human health and the environment at a number of NPL sites. To protect a critical water resource for 2.4 million people in 22 cities, EPA added the Orange County North Basin Superfund site to the NPL.

Responding to an unprecedented 2020 wildfire season in California, where over 9,000 wildfires

burned more than 4 million acres, Region 9 responded swiftly to identify and remove household hazardous waste from over 2,500 property parcels, a task completed by the end of December.

In other 2020 land management efforts, Region 9 cleaned up more than 565 leaking underground storage tanks, including two cleanups on tribal lands. EPA assessed 254 Brownfields sites, cleaned up 69 of them, and readied 162 for reuse. It also completed 20 PCB site cleanups. Additionally, 2020 saw Region 9 finalize a 10-year plan to address abandoned uranium mines on Navajo Nation lands.

Enforcement Success

Region 9 obtained 92 enforcement and compliance case conclusions in 2020, which reduced or prevented 33 million pounds of pollution. Actions obtained \$1 billion in injunctive relief, \$20 million in penalties, and \$1.7 million in work done via Supplemental Environmental Projects. The Region took nine Clean Air Act 112(r) actions, resulting in \$684,000 in penalties and reducing pollution by 309 tons. It concluded six defeat device cases, including the largest regional Clean Air Act settlement, which garnered a \$20 million penalty and reduced more than 7 million pounds of pollution. Action was taken against nine facilities discharging industrial stormwater into coastal habitats, yielding \$509,000 in penalties and \$326,000 in injunctive relief. Region 9 also negotiated an \$800,000 FIFRA settlement for sale and distribution of unregistered pool disinfectants. Conducting audits at 60 facilities, it acted against seven entities failing to close cesspools in Hawaii with settlements to close 33 illegal cesspools.

Partnerships with Tribes and Territories

In 2020, Region 9 completed 10 Treatment as a State approvals. It also awarded more than \$25 million to 38 tribal water infrastructure projects and completed 63 sanitary surveys at tribal water systems. Region 9 issued emergency orders against two drinking water systems and provided alternate water to more than 2,000 residents. There were 115 tribal capacity-building grants awarded in 2020, supporting: 43 EPA-Tribal

Environmental Plans, 58 Integrated Solid Waste Management Plans, 31 air quality programs, and 26 water quality programs. Region 9 also completed a RCRA permit at the Evoqua carbon regeneration facility.

Region 9 is also responsible for stewardship of the U.S. Pacific Islands. In 2020, it awarded \$39 million to territorial utilities for water infrastructure, including more than \$9 million for typhoon disaster relief in the Commonwealth of the Northern Mariana Islands. Region 9 awarded six grants totaling more than \$8 million to territorial efforts and managed contracts and Interagency Agreements totaling \$4 million. Enforcement actions secured a \$400,000 penalty and \$1 billion in injunctive relief from Guam Power Authority to reduce emissions of hazardous air pollutants and sulphur dioxide by 99 percent.



REGION 10

From Bristol Bay to Puget Sound to the Columbia River, EPA Region 10 protects the environment and people of the Pacific Northwest. Region 10 is responsible for the land, waters, and air of Alaska, Idaho, Oregon, Washington, and 271 tribal nations.

Cleaning Hazardous Waste

This year, Region 10 invested \$3 million in funding for the Backhaul Alaska Program, providing hazardous waste transportation services to 160 remote, rural communities throughout Alaska that would otherwise have to burn their waste or dispose of it in unlined landfills. During the pilot phase, 73,000 pounds of material was safely removed, with an additional 150,000 pounds expected by the end of the pilot. As a result of the program's training and capacity building efforts, 25 communities developed strong waste backhaul programs. The program helps these communities by removing wastes like lead acid batteries, fluorescent lamps, and

waste electronics, which would otherwise remain uncontrolled in the community, posing risks to people's health and the environment. In 2020, EPA drove significant progress toward cleanup at the Portland Harbor Superfund Site. Responsible parties signed nine agreements and EPA issued two orders to complete cleanup engineering design for approximately 75 percent of this heavily contaminated 10-mile stretch of the Willamette River. By early 2021, we expect to sign the final agreement for the remaining 25 percent, meaning 100 percent of the site will be in active cleanup design. Several of the parties have already begun active in-river design work to kickstart the work. Region 10 is conducting oversight of the cleanup design work, while working with many actively engaged stakeholders including the Oregon Department of Environmental Quality, multiple federal agencies, six Native American Tribes, and community groups and nonprofits.

Region 10's Emergency Response Program deployed staff and contractors to the former Kaiser Aluminum Smelter site in Mead, Washington, to prevent toxic runoff from materials left at the aging site. With the goal of completing the emergency cleanup operations before the winter rains began, the On-Scene Coordinators (OSCs) and legal team navigated technical issues as well as complications brought on by the COVID-19 pandemic. After securing two legal agreements, in July and August the OSCs, one Potentially Responsible Party, and contractors implemented two time-critical removal actions to clean up source material containing PCBs, polycyclic aromatic hydrocarbons, and asbestos. Ponds on the property had accumulated PCBs and were transporting contaminants to a tributary of the Little Spokane River, which has been designated as an impaired water body under the Clean Water Act due to PCBs detected in fish tissue. The field work lasted 18 weeks with an average of 30 staff per day on site to dismantle and/or remove approximately 5,300 tons of green mill waste; 318,000 square feet of PCB siding; 14,400 linear feet of failing asbestos covered piping; and more than 5,000 chemical containers.

Protecting Our Water

The Columbia River Basin is home to over 8 million people who depend on its resources for their health and livelihood. This year Region 10, with assistance from Region 8, launched the inaugural Columbia River Basin Restoration Program grants program by awarding \$2 million to 14 different entities spanning the entire Columbia Basin and four states.

In addition, Region 10 continued to invest in efforts to protect and restore Puget Sound, the largest estuary by water volume in the U.S. In 2020, Region 10 awarded \$30 million in grants to work on the priorities of Orca and salmon recovery, healthy shellfish beds, and stormwater pollution reduction and prevention.



Regional Administrator Chris Hladick visits Puget Sound to see the improvement of harvestable shellfish beds indicating an improvement in water quality in the watershed.

EPA's investments have totaled over \$100 million over the years and have resulted in:

- seeding groundbreaking research on toxins;
- helping establish a stormwater research center;
- helping reopen hundreds of acres of previously closed shellfish beds;
- removing thousands of traps and nets; and
- restored miles of shoreline, acres of wetlands, and upstream river systems.

Emergency Response

In the aftermath of the fires in Oregon, FEMA issued Mission Assignments to EPA to assist the

State of Oregon. The primary Mission Assignment for \$21.8 million asked EPA to address hazardous materials on burned properties and implement emergency erosion control measures to prevent damage to drinking water systems and critical endangered species habitat. Region 10 is also providing critical technical assistance to the Oregon Health Authority to assess impacts to drinking water and wastewater systems throughout the impacted area. At the height of the response operations, over 200 EPA staff and contractors were working in the field and supporting the field operations in a virtual Incident Management Team.

Reducing Diesel Emissions

This year, Region 10 awarded more than \$6 million in grants for diesel pollution reduction projects across the region. This includes more than \$2 million to our four states to support ongoing efforts as well as \$2 million to tribal governments and \$2 million to ports and non-profit groups working across sectors to reduce harmful diesel pollution in the Pacific Northwest. Region 10 also awarded more than \$16.5 million for woodstove change-out programs in Alaska and Oregon aimed at cutting harmful particulate pollution and helping these areas meet national air quality standards.

In September 2020, EPA submitted a Report to Congress titled Remote Areas of Alaska: Affordable and Reliable Options for Meeting Energy Needs and Reducing Emissions. This report presents options for the federal government to assist remote areas of Alaska with meeting the energy needs of those areas in an affordable and reliable manner using existing emissions control technology or other technology that achieves similar emissions reductions. The report discusses measures such as replacement of older diesel generators with lower-emitting generators, fuel switching, and community collaboration, as well as existing federal government programs that assist these remote areas.



