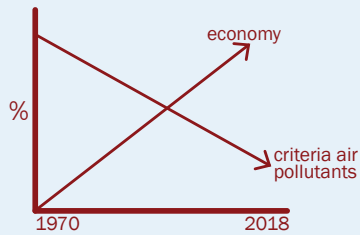




YEAR IN REVIEW

2019: BY THE NUMBERS



Between 1970 and 2018, the combined emissions of six key pollutants dropped by 74%, while the U.S. economy grew 275%

\$5,000,000,000 +

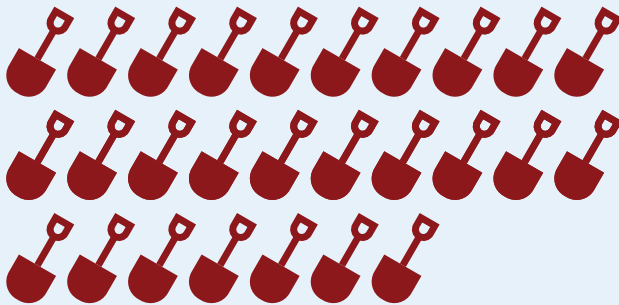
in regulatory savings through the finalization of **49 deregulatory actions** completed under President Trump

16

deregulatory actions finalized in 2019 saving Americans more than **\$1,500,000,000**

\$6 Billion

in WIFIA loans for **38** new project applications that will finance over **\$12 billion** in water infrastructure investments in **18 states**



In FY 2019, EPA deleted all or part of **27 Superfund sites** from the National Priorities List → the largest number of deletions in a single year since FY 2001

\$64.6 Million

in grants to **151 communities** through EPA's Brownfield and Land Revitalization Program for cleanup and redevelopment, creating jobs and economic opportunities with over 70% of sites located within Opportunity Zones



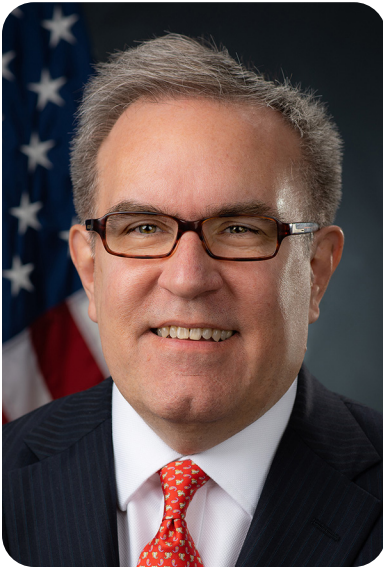
In 2019, EPA made a **\$2.6 billion** contribution to the State Revolving Funds, enabling more communities to make the investments needed to ensure Americans have safe water for drinking and recreation



179 organizations

signed EPA's "America Recycles Pledge" to work toward a more resilient materials economy

INTRODUCTION:



The Trump administration had a wildly successful 2019, fulfilling many promises made to the American people to unleash the economy and foster American innovation. With this success has come tremendous progress here at the U.S. Environmental Protection Agency (EPA) toward some of our most important environmental and human health challenges. We continue to foster a commonsense regulatory environment that is resulting in cleaner land, air, and water for all Americans. I'm proud to present this report detailing the actions we have taken over the last year to achieve these outcomes.

Since President Trump took office, EPA has maintained a keen focus on protecting the most vulnerable among us, directing resources toward communities that have been largely overlooked by previous administrations. All Americans, regardless of their income or zip code, deserve a clean and healthy environment for themselves and their children.

The agency has continued to elevate the Superfund program as a top priority. In FY 2019, seven sites were added to the National Priorities List (NPL). By adding these sites, the agency is taking action to clean up some of the most contaminated sites in America, protecting the health of the local communities, and returning sites to safe and productive use. While seven sites were added to the NPL, 27 sites were fully or partially deleted from the NPL last year – the largest number of deletions in a single year since 2001. While there is no single way to characterize communities located near these sites, the population is more likely to be minority, low-income, linguistically isolated, and less likely to have a high school education than the U.S. population as a whole. Our re-energized and reinvigorated Superfund program is a powerful example of how the agency is transforming entire communities for the better.

We are prioritizing sites in economically-distressed areas, known as “Opportunity Zones,” that qualify for preferential tax treatment through President Trump’s historic tax reform package. Most often, those who reside near these sites are low-income, minority, and disadvantaged Americans. By focusing programs and resources on these areas, we can multiply the impact of the tax incentive and attract even more economic development to these areas.

EPA has also made progress on what I believe are the largest and most immediate environmental and public health issues affecting the world right now: water issues. This includes access to safe drinking water, water infrastructure, and marine plastic debris.

We are delivering on President Trump’s commitment to ensuring that all Americans have access to clean and safe drinking water – beginning with the most at-risk communities. In October, we announced the first major overhaul

of the agency's Lead and Copper Rule since 1991. With this proposal, we are advancing the Trump administration's Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts ensuring that lead service line replacement in communities that are most at risk are prioritized.

In partnership with local municipalities around the country, we are using our financing and grant programs to upgrade water infrastructure through the Water Infrastructure Finance and Innovation Act (WIFIA) loan program. Under President Trump, EPA has closed 14 loans totaling over \$3.5 billion dollars in credit assistance. Combined with other funding sources, these projects will help finance over \$8 billion dollars for water infrastructure projects and create over 15,000 jobs. In 2019, EPA invited 38 new projects in 18 states to apply for WIFIA loans totaling \$6 billion dollars to help finance over \$12 billion dollars in water infrastructure investments and create up to 200,000 jobs.

In June, EPA finalized the Affordable Clean Energy (ACE) rule – replacing the prior administration's overreaching Clean Power Plan with a rule that restores the rule of law and empowers states to continue to reduce carbon dioxide emissions while providing affordable and reliable energy for all Americans. We project that ACE will result in annual net benefits of \$120 million to \$730 million. With ACE, along with additional expected emissions reductions based on long-term industry trends, we expect to see CO₂ emissions from the electric sector fall by as much as 35 percent below 2005 levels in 2030.

In February, EPA released our per- and polyfluoroalkyl substances (PFAS) Action Plan. This is the most comprehensive cross-agency action plan for an emerging chemical of concern ever undertaken by the agency and commits EPA to take important steps that will improve how we research, monitor, detect, and address PFAS. I also signed a memorandum calling for the agency to prioritize new federal research that will help identify potential impacts of PFAS to farms, ranches, and rural communities. In less than one year's time, we made significant progress toward many of our goals, including: soliciting public comment on adding PFAS chemicals to the Toxics Release Inventory (TRI); announcing the availability of \$4.8 million in funding to expand research on managing PFAS in rural America and the agricultural sector; sending our preliminary regulatory determination for certain PFAS chemicals in drinking water to the White House for interagency review; and finalizing interim recommendations for cleaning up groundwater contaminated with perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) under federal cleanup programs.

Under the Trump administration, the agency has been making a concerted effort to convert previously issued Federal Implementation Plans (FIPs) into State Implementation Plans (SIPs). Since January 1, 2017, EPA has converted 23 FIPs to SIPs. In addition, the agency has addressed 32 non-attainment areas by redesignating them from nonattainment to attainment.

Attainment redesignations mean cleaner air, improved health outcomes, and greater economic opportunities for cities and communities. EPA is working closely with our state partners to help areas reach air quality attainment, reduce regulatory burdens, and breathe new life into their local economies. Since the start of this administration, we've re-designated 35 areas around the country, moving them into attainment with federal air quality standards and lifting major regulatory burdens off local businesses.

EPA is also reinvigorating our role as a leader in recycling across America, hosting our second annual Recycling Summit in Washington, D.C. to address major challenges facing the U.S. recycling system. Since the 2018 Summit, more than 110 additional organizations have signed EPA's Recycling Pledge, committing to leveraging their collective expertise, strengths, and resources to improve all aspects of the country's recycling system. At this year's event government, industry, and non-profit leaders came together to discuss how to build on their successes over the last year and continue progress in 2020. The agency also released a "National Framework for Advancing U.S. Recycling System" and held its first-ever Innovation Fair showcasing innovative solutions to modern recycling challenges.

If all of this weren't enough, we continue to deliver on President Trump's regulatory reform agenda. Through diligent work, EPA has exceeded the deregulatory goals of President Trump's two-for-one executive order. Under the Trump administration, EPA has finalized 49 deregulatory actions, saving Americans more than \$5 billion in regulatory costs, and we have an additional 47 actions in development projected to save billions more. Our actions give states and the regulated community the certainty they need to plan investments in facility upgrades and new technologies that will improve both the environment and the economy.

This year, we celebrate 50 years of environmental progress at EPA. I am honored to be part of this legacy and especially proud of the progress we made in 2019. EPA's dedicated staff pushed forward to complete many significant goals and has committed to many more in the year ahead. As we forge ahead in 2020, I know we will continue to hit critical milestones in our mission to protect human health and the environment for all Americans.

A handwritten signature in black ink, reading "Andrew R. Wheeler". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Andrew R. Wheeler

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REGULATORY REFORM

EPA has made tremendous progress reducing unnecessary regulatory burdens. Under President Trump, EPA has finalized 49 deregulatory actions, saving Americans more than \$5 billion in regulatory costs. In 2019 alone, EPA finalized 16 deregulatory actions, saving Americans more than \$1.5 billion in regulatory costs. That is four times the number of significant regulatory actions EPA finalized in the same time span. An additional 47 deregulatory actions are under development.

Deregulation is not just about removing regulations from the books. Under the Trump administration,

EPA has made it a priority to update and modernize existing regulations. We are working with Americans across the country to ensure our regulations make sense, protect the environment, and do not add undue monetary burdens on the public.

EPA is among the leaders in this administration in implementing President Trump's "two-for-one" executive order, which requires that for every one new regulation issued, at least two prior regulations be identified for elimination. Throughout President Trump's time in office, EPA exceeded those deregulatory goals.

AIR: Improving Air Quality

In the latest annual report on air quality, tracking our nation's progress in improving air quality since the passage of the Clean Air Act, emissions of key air pollutants continued to decline. "Our Nation's Air: Status and Trends Through 2018" documents the considerable improvements in air quality across America since 1970. The report shows that, between 1970 and 2018, the combined emissions of six key pollutants dropped by 74 percent, while the U.S. economy grew 275 percent.

"One of America's great but untold environmental success stories is that we have made – and continue to make – great improvements in our air quality, thanks largely to state and federal implementation of the Clean Air Act and innovation in the private sector," **said EPA Administrator Andrew Wheeler.** "National emissions of all key air pollutants dropped between 1990 and 2018, and lead and sulfur dioxide concentration averages dropped by double-digit percentages during the same period. The U.S. is a global leader in clean air progress, and we've proven that we can protect the environment while growing our economy."

WHAT WE'RE SEEING:

From 2016 to 2018, emissions of key air pollutants continued to decline:

- Nitrogen Oxides (NOx) ↓ 8.7 percent
- Particulate Matter 2.5 (PM 2.5) ↓ 1.9 percent
- Particulate Matter 10 (Including lead) (PM 10) ↓ 1.2 percent
- Sulfur Dioxide (SO₂) ↓ 7.8 percent
- Carbon Monoxide (CO) ↓ 7.2 percent
- Volatile Organic Compounds (VOC) ↓ 3.3 percent

In addition, average concentrations of harmful air pollutants decreased considerably across our nation between 1990 and 2018:

- Ground-level ozone (8-hour) ↓ 21 percent
- Fine Particulate Matter (annual) ↓ 39 percent (from 2000)
- Coarse Particulate Matter (24-hour) ↓ 26 percent
- Sulfur Dioxide (1-hour) ↓ 89 percent
- Nitrogen Dioxide (annual) ↓ 57 percent
- Lead (3-month average) ↓ 82 percent (from 2010); and
- Carbon Monoxide (8-hour) ↓ 74 percent

Affordable Clean Energy Rule

In June, EPA finalized the Affordable Clean Energy (ACE) rule – replacing the prior administration’s overreaching Clean Power Plan 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. EPA projects that ACE will result in annual net benefits of \$120 million to \$730 million. With ACE, along with additional expected emissions reductions based on long-term industry trends, we expect to see CO2 emissions from the electric sector fall by as much as 35 percent below 2005 levels in 2030.

EPA anticipates that ACE will reduce emissions of CO2, mercury, as well as precursors for pollutants like fine particulate matter and ground-level ozone:

In 2030, the ACE rule is projected to:

- Reduce CO2 emissions by 11 million short tons
- Reduce SO2 emissions by 5,700 tons
- Reduce NOx emissions by 7,100 tons
- Reduce PM2.5 emissions by 400 tons
- Reduce mercury emissions by 59 pounds

E15

Before the start of the summer driving season, EPA advanced President Trump’s policy priorities allowing year-round sale of E15 gasoline. The final action removed the key regulatory barrier to using gasoline blended with up to 15 percent ethanol during the summer driving season. In addition, the final rule contained regulatory changes to reform certain elements of the Renewable Identification Number compliance system of the Renewable Fuel Standard (RFS) program to increase transparency and deter price manipulation in the RIN market.

“Following President Trump’s directive, [this] action expands the market for biofuels and improves the RFS program by increasing transparency and reducing price manipulation,” **said EPA Administrator Andrew Wheeler.** “As President Trump promised, EPA is approving the year-round sale of E15 in time for summer driving season, giving drivers more choices at the pump.”

SAFE

In concert with the U.S. Department of Transportation (DOT), EPA delivered on President

Trump’s promise that his administration would address the current fuel economy and greenhouse gas emissions standards. In September, DOT’s National Highway Traffic Safety Administration (NHTSA) and EPA finalized part of the proposed Safer, Affordable, Fuel-Efficient (SAFE) Vehicles Rule by issuing the “One National Program Rule,” which will enable the federal government to provide nationwide uniform fuel economy and greenhouse gas emission standards for automobiles and light duty trucks.

“[W]e are delivering on a critical element of President Trump’s commitment to address and fix the current fuel economy and greenhouse gas emissions standards,” **said EPA Administrator Andrew Wheeler.** “One national standard provides much-needed regulatory certainty for the automotive industry and sets the stage for the Trump administration’s final SAFE Vehicles Rule that will save lives and promote economic growth by reducing the price of new vehicles to help more Americans purchase newer, cleaner, and safer cars and trucks.”

“[This] action meets President Trump’s commitment to establish uniform fuel economy standards for vehicles across the United States, ensuring that no State has the authority to opt out of the Nation’s rules, and no State has the right to impose its policies on the rest of the country,” **said Secretary of Transportation Elaine L. Chao.**



The “One National Program Rule” brings much-needed certainty to consumers and industry by making it clear that federal law preempts state and

local tailpipe greenhouse gas emissions standards as well as zero emission vehicle mandates. This action will help ensure that there will be one, and only one, set of national fuel economy and greenhouse gas emission standards for vehicles. The agencies continue to work together to finalize the remaining portions of the SAFE Vehicles Rule, to address proposed revisions to the federal fuel economy and GHG vehicle emissions standards. When finalized, EPA and NHTSA anticipate that the proposed SAFE Vehicles Rule standards would establish attainable fuel economy and GHG vehicle emissions standards so that more Americans have access to safer, more affordable, and cleaner vehicles that meet their families' needs. The proposed standards are projected to save the nation billions of dollars and strengthen the U.S. domestic manufacturing base by adding millions of new car sales.

Ethylene Oxide

Ethylene oxide is one of 187 hazardous air pollutants regulated by EPA. Ethylene oxide is a flammable, colorless gas used to make other chemicals that are used in making a range of products, including antifreeze, textiles, plastics, detergents, and adhesives. Ethylene oxide also is used to sterilize equipment and plastic devices that cannot be sterilized by steam, such as medical equipment.

EPA has been taking steps to address ethylene oxide emissions after 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. Since then, EPA has taken a two-pronged approach to evaluate these emissions. First, the agency is reviewing existing Clean Air Act regulations for industrial facilities that emit ethylene oxide. Second, while that process is ongoing, EPA is gathering additional information on ethylene oxide emissions and working with state and local air agencies to determine whether more immediate emission reduction steps may be warranted. By working with our state and local partners, we seek to identify opportunities to achieve emission reductions.

WHAT IS NATA?

EPA developed NATA as a screening tool for state, local and tribal air agencies. NATA's results help these agencies identify which pollutants, emission sources, and places they may wish to study further to better understand any possible risks to public health from air toxics. NATA can't give precise exposures and risks for a specific person. Instead, NATA results are best applied to larger areas – counties, states, and the nation.

In December:

1. EPA issued an Advance Notice of Proposed Rulemaking (ANPRM) to solicit information from industry and the public on strategies for further reducing ethylene oxide emissions from commercial sterilization and fumigation operations.
2. The agency invited small businesses, governments, and not-for-profit organizations to participate as Small Entity Representatives providing advice and recommendations to a Small Business Advocacy Review Panel. This panel will focus on the agency's development of a rule that proposes to update the National Emission Standards for Hazardous Air Pollutants (NESHAP) for ethylene oxide emissions from commercial sterilization and fumigation operations.

EPA also continued this progress with the announcement of proposed amendments to the Miscellaneous Organic Chemical Manufacturing NESHAP, known as MON, to reduce hazardous air pollutants, including ethylene oxide. The proposed MON amendments, if finalized, are expected to reduce emissions of hazardous air pollutants from the source category by 116 tons per year, which includes a 93 percent reduction in ethylene oxide emissions from covered facilities.

To further explain the uncertainties in the estimated cancer risks from ethylene oxide, EPA posted the Memorandum: Sensitivity of ethylene oxide risk estimates to dose-response model selection, which explores the various dose-response models evaluated in the ethylene oxide carcinogenicity assessment. This information provides important context for interpreting the risk results from the

Residual Risk Assessment developed in support of this proposal.

Providing Affordable, Reliable Energy to Remote Alaskan Communities

Remote communities in Alaska rely almost exclusively on diesel engines for electricity and heat – especially in winter when these engines need to be reliable. Due to limited access to these remote communities, the costs of operating these stationary compression ignition engines, which include acquiring and installing aftermarket controls required by the NSPS, are greater than in the rest of the United States.

Following through on the agency’s obligation to revise the rule under the recently enacted Alaska Remote Generator Reliability and Protection Act, which was signed into law by President Trump on Oct. 2019, EPA issued a final rule to revise the New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines. Amending the standards will increase energy affordability and reliability in remote areas of Alaska. It is also expected to improve air quality by reducing particulate matter (PM) by approximately 80 percent.

“Having operated utilities in rural Alaska for over 25 years, I know firsthand that power reliability challenges are significant even without more stringent regulations. Today’s commonsense approach will allow utilities to provide power more reliably while ensuring older units can be replaced with newer more efficient diesel engines. This is a success story for rural communities operating off the grid,” **said EPA Region 10 Administrator Chris Hladick.**

“When I’m back home in Alaska, I have a firsthand look at how the EPA can impact our state, from restoring contaminated sites, to ensuring clean drinking water, and now helping communities have greater access to more affordable, dependable energy... These new regulations will make much-needed progress towards enabling Alaskans to lower the costs of their energy bills,” **said U.S. Senator Lisa Murkowski (R-AK).** “This is significant, long-awaited news for the remote communities and villages in Alaska that rely on these generators to

keep their homes warm and the lights on.”

“I want to thank the Trump administration and EPA Administrator Wheeler for working with us, not against us, to ensure Alaskans have access to the energy that they need,” **said U.S. Senator Dan Sullivan (R-AK).** “This implements my remote generator bill that was signed into law last month to allow Alaskans to power their homes reliably without having to incur crippling costs caused by unnecessarily burdensome federal regulations.”

“Today’s announcement by the EPA is a great victory for our remote Alaskan communities,” **said Rep. Don Young (R-AK-At Large).** “Many Alaskans depend on diesel generators to heat their homes, run their appliances, and keep their lights on, and Washington D.C. shouldn’t be getting in the way of their everyday lives. Quite frankly, new generators are very costly, and families shouldn’t be burdened by an arbitrary decision made four thousand miles away.”

Active Forest Management

Consistent with President Donald Trump’s December 2018 Executive Order on 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. EPA recognizes and supports the use of prescribed fires as an important tool to promote proper forest management and reduce the risk of catastrophic wildfires.



EPA issued a new guidance that will help state, local, and tribal air agencies and key federal partners show how certain air quality impacts from

Here's What People Had to Say:

U.S. Representative Greg Walden (R-OR-2), Ranking Member of the House Committee on Energy and Commerce: “The EPA’s new guidelines are small steps in the right direction for forest management and reducing the risk of catastrophic wildfire... These guidelines will allow for more flexibility for land managers to use prescribed fires when necessary. We know prescribed fire is one tool in the toolbox for improving forest health and reducing the risk of larger, more dangerous wildfires that pour smoke into our communities.”

Utah Governor Gary Herbert: “We appreciate the EPA listening to states and recognizing that prescribed burns are an important tool in maintaining healthy forests and preventing catastrophic wildfires.”

Jefferson County Colorado Board of County Commissioners Chairman Libby Szabo: “The mission of the EPA is to protect human health and the environment, and that is exactly what this tool does. When devastating fires ravage our communities, it creates polluted air and contaminates our rivers with harmful debris. Giving local governments the latitude to make decisions that are best for the vitality of their communities will keep people safe and our air and water clean. Those are the things we all expect from our government.”

Ventura County Supervisor and Air Pollution Control Board Member Kelly Long: “In the wake of some of the most devastating fires in history, we have been exploring all possible options to protect against and help mitigate the risk of wildfires, which cause destruction on a massive scale. Prescribed burns can be an incredibly effective tool to protect life and property against fire devastation and public officials should be given broad latitude to employ this proactive remedy. In addition, the air quality and public health impacts of smoke from wildfires can be greatly reduced by a well-managed prescribed fire program.”

prescribed fire on wildlands may be excluded from some regulatory uses. The guidance, *Exceptional*

Events Guidance: Prescribed Fire on Wildland that May Influence Ozone and Particulate Matter Concentrations, streamlined the demonstration development and review process. It promotes active forest management by helping air agencies and our federal partners show that air quality impacts from prescribed fire on wildlands should be excluded from some regulatory uses.

State Implementation Plans

EPA establishes National Ambient Air Quality Standards (NAAQS) for common air pollutants to improve air quality across the country. This can be achieved in one of two ways: through state driven solutions (i.e. State Implementation Plans [SIPs]) or top-down mandates known as Federal Implementation Plans (FIPs). Under the Trump administration, EPA has been making a concerted effort to convert previously issued FIPs into SIPs. Since January 1, 2017 the agency has converted 23 FIPs to SIPs.

In addition, the agency has addressed 32 non-attainment areas by redesignating from nonattainment to attainment. Attainment redesignations means cleaner air, improved health outcomes, and greater economic opportunities for cities and communities. EPA is working closely with state partners to help areas reach air quality attainment, reduce regulatory burdens, and breathe new life into local economies.



Rocky Mountains on a clear day.

In 2018, EPA Acting Administrator Wheeler issued a Regional Haze Reform Roadmap, setting a path that puts states in charge and reduces state planning burdens. Following the roadmap, EPA has approved

SIPs on regional haze for Kentucky and Arkansas.

April 2019: EPA Approves Revisions to Kentucky Regional Haze Plan

EPA Administrator Wheeler approved revisions to the Kentucky Regional Haze SIP for sulfur dioxide and nitrogen oxides emissions at electric generating units within the commonwealth. Administrator Wheeler's approval removes the one-size-fits-all FIP for Kentucky regional haze dating back to 2012 and fully approves Kentucky's clean air plan for regional haze. The approval of Kentucky's Regional Haze SIP is another example of successful federal/state collaboration as EPA supports states to enable efficient, timely and effective implementation of the Regional Haze program.

"EPA is removing burdensome, top-down federal requirements and approving the commonwealth's own plan for clean air and visibility," **said EPA Administrator Andrew Wheeler.** "This action reflects President Trump's commitment to reduce regulatory burdens imposed on states and work cooperatively with them to achieve environmental progress."

"EPA is pleased to announce the approval of Kentucky's regional haze plan," **said EPA Region 4 Administrator Mary S. Walker.** "This action returns the authority to implement these clean air provisions to the commonwealth."

"The Kentucky Department for Environmental Protection (KDEP) appreciates EPA's recent approval of the Kentucky Regional Haze State Implementation Plan," **said KDEP Commissioner Anthony Hatton.** "In the last 10 years, emissions of sulfur dioxide and nitrogen oxides from Kentucky electric generating units have decreased by 78 percent and 40 percent, respectively."

September 2019: EPA Approves Changes to Arkansas' Clean-Air Plan for Regional Haze

EPA worked closely with Arkansas for the last two years to update their plan and replace the FIP. Arkansas' plan includes the reduction of sulfur dioxide, oxides of nitrogen and particulate matter using best-available retrofit technology at seven electric-generating units.

"States are best suited to run their clean-air programs, and Arkansas' clean-air plan gives our state partner the flexibility needed to improve its air quality," **said EPA Region 6 Administrator Ken McQueen.** "This plan ensures that the skies over Arkansas' scenic areas will be protected for future generations."

"We appreciate and applaud this action by EPA. It is a remarkable day for Arkansans and all who have worked to restore state control," **said Arkansas Department of Energy and Environment Secretary Becky W. Keogh.** "Arkansas is well positioned with this approved plan to achieve and surpass the air-quality goals set in federal law, while realizing over \$2 billion of savings to ratepayers."

Continued NSR Reform

Throughout 2019, the agency continued to make progress in modernizing and streamlining the New Source Review (NSR) permitting program. The NSR permitting program is intended to protect air quality when facilities are either newly built or modified, in practice, however, the program has stopped important projects that would reduce emissions. EPA's efforts to streamline and modernize NSR requirements are focused on incentivizing the installation of new technology and investment in projects to improve air quality and industrial efficiency.

"NSR reforms are a key component of President Trump's agenda to revitalize American manufacturing and grow our economy while continuing to protect and improve the environment," **said EPA Administrator Andrew Wheeler.** "NSR regularly discouraged companies from investing in and deploying the cleanest and most efficient technologies. Through the Trump administration's efforts, EPA is providing clarity to permitting requirements, improving the overall process, and incentivizing investments in the latest energy technologies."

In August 2019, EPA proposed a rule to clarify the process for evaluating whether an NSR preconstruction permit is needed when an existing major-emitting facility plans to make changes or expand. This action would reduce uncertainty and streamline regulatory obligations.

In late 2019, EPA issued final guidance, identifying the sort of measures which EPA may take account of in determining whether a source owner or operator has precluded the general public from having access to its property. The guidance updates EPA's policy to recognize that a variety of measures may be considered effective in keeping the public off a source owner/operator's property.

In addition, EPA issued a final guidance that revises the agency's interpretation of when multiple air pollution-emitting activities are located on sufficiently "adjacent" properties to one another that they should be considered a single source for the purposes of permitting. This interpretation should help clarify and streamline the permitting process.

EPA issued a proposal to address minor errors that have accumulated over time in four NSR regulations. While these minor errors, such as outdated cross references and typographical errors, have not materially impeded the effective operation of the NSR program, EPA believes that it is important to remove such errors from the regulations in order to provide regulatory certainty and clarity. The proposed corrections are all considered to be non-substantive and are intended to provide clarity and precision to the NSR regulations without altering any NSR policy or changing the NSR program as a whole.

Methane

As a result of EPA's review of the 2016 New Source Performance Standards (NSPS) for the oil and natural gas industry, which was conducted in response to President Trump's Executive Order 13783 – Promoting Energy Independence and Economic Growth, the agency put forth a proposal that would remove regulatory duplication while maintaining health and environmental regulations on oil and natural gas sources that the agency considers appropriate to regulate. The proposal is estimated to save \$17 – 19 million in compliance costs each year while continuing to reduce emissions.

"EPA's proposal delivers on President Trump's executive order and removes unnecessary and duplicative regulatory burdens from the oil and gas

industry," **said EPA Administrator Andrew Wheeler.** "The Trump administration recognizes that methane is valuable, and the industry has an incentive to minimize leaks and maximize its use. Since 1990, natural gas production in the United States has almost doubled while methane emissions across the natural gas industry have fallen by nearly 15 percent. Our regulations should not stifle this innovation and progress."

Here's What People Had to Say:

U.S. Senator Kevin Cramer (R-ND): "North Dakota is a leader in oil and natural gas production; and as I like to say, North Dakota does not need Washington imposing its mediocrity on our excellence. This proposed rule maintains health and environmental protections while eliminating duplicative regulations which increase compliance costs for producers that get passed along to consumers. I applaud Administrator Wheeler for continuing President Trump's promise to eliminate burdensome regulations placed on energy production, and I urge North Dakotans to offer their input on this proposal."

Rep. Rob Bishop (R-UT-01): "For too long, the overregulation of methane has imposed undue burdens. By continuing on this unnecessary path, we fail to alleviate inflating energy prices or provide meaningful environmental gains. Removing barriers to energy production here at home, where we have the most stringent environmental standards, should be common sense. These proposals by the EPA are in line with the prudent policy of securing American energy independence and prosperity."

Rep. Andy Biggs (R-AZ-05): "Promises made, promises kept: I commend President Trump and his administration for taking action against the EPA's disastrous methane rule. By promoting energy independence and economic growth through a sound deregulatory agenda, we will continue to see a boom in the American oil and gas sector that helps fuel millions of lives across the world."

WATER: Providing Clean & Safe Water

Restoring Regulatory Certainty Through Repealing of the 2015 “Waters of the United States” (WOTUS) Definition and Proposing a Revised Definition

Consistency and certainty is vital in defining “waters of the United States” (WOTUS) for the American public. In September 2019, EPA and the U.S. Department of the Army announced the repeal of the 2015 Rule that impermissibly expanded the definition of WOTUS. The repeal action recodified the longstanding and familiar regulatory text that existed prior to the 2015 Rule. This step was necessary following years litigation surrounding the rule and multiple court decisions that blocked implementation of the 2015 Rule due to its overreach. When repeal took effect in December 2019, the action ended a regulatory patchwork that required implementing two competing Clean Water Act regulations creating regulatory uncertainty across the U.S. Also, in 2019, the agencies began to carefully review the 620,000 comments received on the proposed revised definition of “waters of the United States.” The agencies look forward to finalizing this action in early 2020.

Providing Safe Drinking Water

Reducing Exposure to Lead in Drinking Water

Ensuring all communities have access to safe, clean drinking water is a top priority for EPA under the Trump administration. In October, EPA announced a proposed rule that would significantly improve the actions that water systems must take to reduce lead in the nation’s drinking water. This proposal represents the first major overhaul of the Lead and Copper Rule in nearly three decades and marks a critical step in advancing the Trump administration’s Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts. As part of the proposal, for the first time, community water systems would be required to take drinking water samples from the schools and child care facilities they serve.

“The Trump administration is delivering on its commitment to ensure all Americans have access

to clean drinking water by proposing the first major overhaul of the Lead and Copper Rule in over two decades,” **said EPA Administrator Andrew Wheeler.** “By improving protocols for identifying lead, expanding sampling, and strengthening treatment requirements, our proposal would ensure that more water systems proactively take actions to prevent lead exposure, especially in schools, child care facilities, and the most at-risk communities. We are also working with the Department of Housing and Urban Development to encourage states and cities to make full use of the many funding and financing options provided by the federal government.”



In conjunction with the announcement, EPA and the U.S. Department of Housing and Urban Development (HUD) launched a new website that summarizes available federal programs that help finance or fund lead service line (LSL) replacement. The new resource also includes case studies demonstrating how cities and states have successfully leveraged federal resources to support LSL replacement projects.

“During my time as a physician, I saw firsthand the devastating impacts lead exposure can have on children,” **said HUD Secretary Ben Carson.** “I applaud the EPA for taking action to reduce lead exposure in drinking water, particularly in our most vulnerable communities.”

The agency’s proposal takes a proactive and holistic approach to improving the current rule — from

testing to treatment to telling the public about the levels and risks of lead in drinking water. If finalized, EPA's proposed rule would:

- Require more water systems to act sooner to reduce lead levels and protect public health;
- Improve transparency and communication; and
- Better protect children and the most at-risk communities.

KEY AREAS OF THE LEAD AND COPPER RULE

Under the proposal, a community water system would be required to take new actions, including, but not limited to:

- 1) Identifying the most impacted areas by requiring water systems to prepare and update a publicly-available inventory of lead service lines and requiring water systems to "find-and-fix" sources of lead when a sample in a home exceeds 15 parts per billion (ppb).
- 2) Strengthening drinking water treatment by requiring corrosion control treatment based on tap sampling results and establishing a new trigger level of 10 ppb.
- 3) Replacing lead service lines by requiring water systems to replace the water system-owned portion of an LSL when a customer chooses to replace their portion of the line. Additionally, depending on their level above the trigger level, systems would be required take LSL replacement actions.
- 4) Increasing drinking water sampling reliability by requiring water systems to follow new, improved sampling procedures and adjust sampling sites to better target locations with higher lead levels.
- 5) Improving risk communication to customers by requiring water systems to notify customers within 24 hours if a sample collected in their home is above 15 ppb. Water systems will also be required to conduct regular outreach to homeowners with LSLs.
- 6) Better protecting children in schools and child care facilities by requiring water systems to take drinking water samples from the schools and child care facilities served by the system.

Rebuilding America's Water Infrastructure

Water Infrastructure Finance and Innovation Act (WIFIA)

Established by the Water Infrastructure Finance and Innovation Act of 2014, EPA's WIFIA federal loan and guarantee program accelerates investment in the nation's water infrastructure by providing long-term, low-cost supplemental credit assistance for regionally and nationally significant projects. WIFIA credit assistance can be used for a wide-range of projects, from drinking water treatment and seawater desalination, to drought mitigation and water recycling.

Since its inception in 2017, EPA has invited projects from 27 states and the District of Columbia to apply for a WIFIA loan. The agency has issued 14 WIFIA loans to date, ranging from \$21 million to \$699 million. Collectively, these closed WIFIA loans totaled more than \$3.5 billion in credit assistance to help finance more than \$8 billion for water infrastructure projects while creating more than 15,000 jobs. Because the WIFIA program offers loans with low interest rates, these 14 WIFIA loans are anticipated to save borrowers up to \$1.15 billion compared to typical bond financing.

In October, EPA closed a \$436 million WIFIA loan – the largest initial disbursement under WIFIA to date – to the Indiana Finance Authority (IFA). With EPA's WIFIA loan, IFA will be able to lend to an additional 23 drinking water and wastewater infrastructure projects, including ten projects located in rural communities, delivering clean water and protecting public health across the state of Indiana. Drinking water projects will include efforts to improve water treatment plants, storage tanks, distribution system components, wells, and pump stations as well as to construct resiliency features and implement water conservation measures. Wastewater projects will include efforts to improve and increase capacity of treatment plants and construction of tunnels to capture combined sewer overflows. As a result, Indiana residents will benefit from improved drinking water and having fewer pollutants entering their waterways.

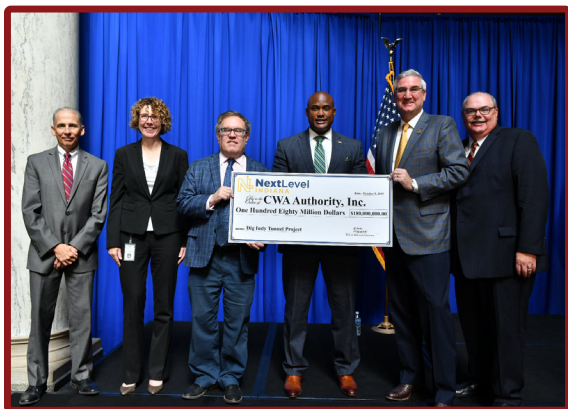
Combining state resources, annual federal capitalization grant dollars, and its WIFIA loan,

Indiana's State Revolving Fund (SRF) will be able to lend nearly \$900 million to support water infrastructure projects throughout the state. EPA's WIFIA program will finance nearly half of that figure – up to \$436 million. Project construction and operation are expected to create 3,034 jobs. This loan marks the first time EPA has provided WIFIA financing directly to a SRF program.

“By using its State Revolving Fund assets to leverage a WIFIA loan, Indiana's innovative financing approach will allow it to lend nearly \$900 million to 23 projects across the state, including ten in rural communities. These projects will improve water quality and protect the health of millions of Hoosiers while also creating well-paying jobs,” **said EPA Administrator Andrew Wheeler.**

“When we say infrastructure, we often think of our roads, but Indiana has more than 46,000 miles of water infrastructure,” **said Indiana Governor Eric Holcomb.** “Delivering clean water and protecting public health are top priorities, and I am grateful that our partnership with the EPA will help empower communities across Indiana to take our water systems to the Next Level.”

“In Indiana, we aren't afraid to make history. We are honored to be the first state to receive WIFIA financing directly to our State Revolving Fund program,” **said IFA Chief Operating Officer Jim McGoff.**



“As a life-long conservationist, this WIFIA loan from President Trump's EPA will improve water quality for millions of Hoosiers across the state,” **said U.S. Senator Mike Braun (R-IN).** “Hoosiers should be proud that President Trump's EPA is restoring

regulatory certainty, while creating good-paying jobs and, most importantly, securing access to clean, drinkable water for generations to come.”

“I am pleased to see that Indiana is receiving a \$436 million WIFIA loan to help with critical water infrastructure needs. This investment will help Hoosiers across the state, including those in rural communities, receive important funding to strengthen and improve their water infrastructure,” **said Rep. Larry Bucshon (R-IN-08).** “As a physician, I understand the importance clean and reliable water infrastructure plays in the health of our citizens and the vitality of our agriculture.”

State Revolving Funds

The Clean Water and Drinking Water State Revolving Funds play an integral role in President Trump's efforts to improve and upgrade our nation's water infrastructure and ensure all Americans have access to clean and safe water. In 2019, EPA made a \$2.6 billion contribution to the SRFs, enabling more communities to make the investments needed to ensure Americans have safe water for drinking and recreation. These funds can also be combined with EPA's WIFIA loans to create a powerful, innovative financing solution for major infrastructure projects nationwide.

Modernizing the Clean Water Act (CWA) Permitting Process

Working cooperatively with federal, state, and tribal co-regulators, the regulated community, and other stakeholders, EPA took multiple actions in 2019 toward streamlining and improving the efficiency of CWA Section 401 certification processes and Section 404 permitting, including:

- Issuing guidance and proposing a rule to provide greater clarity and regulatory certainty regarding the 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 some confusion and resulted in delays in certain infrastructure projects with potentially significant

national benefits. EPA issued guidance in June to help clarify existing water quality certification regulations for federal agencies, states, and authorized tribes. The agency proposed a rule in August that seeks to modernize the agency's existing regulations and implement Section 401 to provide greater clarity and regulatory certainty for the water quality certification process.

- Initiating a rulemaking to modernize the Section 404(g) regulations and foster greater interest by states and tribes to assume administration of Section 404 permitting responsibility. This includes clarifying which waters a state or tribe may assume and which would be retained by the U.S. Army Corps of Engineers (Corps). To date, only the States of Michigan and New Jersey have assumed administration of the Section 404 program; the Corps retains permitting authority for the rest of the country.
- EPA also intends to initiate a rulemaking with the Corps to enhance the efficiency of the mitigation bank and in-lieu fee program approval time while also promoting conservation and wetland mitigation projects.

ABOUT CLEAN WATER ACT SECTION 401 & 404

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. Under Section 401, a federal agency may not issue a permit or license to conduct any activity that may result in any discharge into waters of the United States unless a state or authorized tribe where the discharge would originate issues a Section 401 water quality certification verifying compliance with existing water quality requirements or waives the certification requirement.

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Activities in waters of the U.S. regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports), and mining projects. Section 404 requires a permit before dredged or fill material may be discharged.

Reducing Excess Nutrients in the Nation's Waters

Under the Trump administration, EPA is focusing its attention on reducing excess nutrients impacting the health of the nation's waters through an all-of-the-above approach, which includes enhanced federal and state coordination and stakeholder engagement, and promoting market-based and other collaborative approaches to water quality improvements.

Water Quality Trading

In February, the agency issued a new water quality trading policy memorandum identifying six market-based principles the agency supports that are intended to promote nutrient reductions and water quality improvements at a lower cost using market-based mechanisms. This policy change works to improve upon the agency's 2003 water quality trading memorandum, which despite its intent did not facilitate widespread adoption of water quality trading. In September, EPA took another step in this process by seeking public comment on one of the six market-based principles identified in the water quality trading policy memo, asking for public input on approaches to clarify and provide flexibility on the use of credits in water quality trading.

Mississippi River/Gulf of Mexico Hypoxia Task Force (Hypoxia Task Force)

To stimulate greater collaboration between stakeholders, EPA hosted a roundtable discussion in Baton Rouge, Louisiana, in May, focused on identifying opportunities to reduce nutrient losses around the country. Following the roundtable discussion, EPA co-chaired the Hypoxia Task Force (HTF) public meeting, where federal and state members of the HTF heard updates on gulf science, new tools for tracking conservation actions, and innovative financing and market opportunities to reduce excess nutrients. In August, EPA announced that it is providing \$1.2 million to the 12 state members of the HTF to help implement state plans to reduce excess nutrients.

"The Trump administration's nutrient roundtable discussion produced a rich conversation on the challenges and opportunities that lie ahead for reducing nutrient losses in the Mississippi River Basin," **said EPA Office of Water Assistant Administrator David Ross.** "EPA looks forward to

convening more of these roundtable discussions in the future so that we can better focus federal resources to address this environmental challenge and deliver more effective results for the American people.”

Other Actions

In February, EPA signed a Memorandum of Understanding with the Water Research Foundation to develop affordable technologies to recycle nutrients from manure. In May, EPA issued new recommendations for water quality criteria and swimming advisory values for two cyanotoxins. EPA also published infographics for state and stakeholder use to help inform the public of what harmful algal blooms may look like and how to prevent exposure to humans and pets. In August, EPA announced awarding more than \$7.5 million in Farmer to Farmer Cooperative Agreements to fund projects that improve water quality, habitat, and environmental education in the Gulf of Mexico watershed. These grants promote innovative, market-based solutions for monitoring and improving water quality while also maintaining a vital agricultural economy.

Achieving Greater Pollution Reductions at a Lower Cost

In November, EPA proposed revisions to its Steam Electric Power Plant Effluent Guidelines Rule issued in 2015, which was subject to legal challenge and for which the agency received multiple petitions for reconsideration. EPA estimates that its proposal, if finalized, would achieve greater pollution reductions than the 2015 rule, at a lower cost. By leveraging newer and less costly pollution control technologies and taking a flexible, phased-in implementation approach, EPA’s proposal is estimated to save more than \$175 million annually in pre-tax compliance costs while reducing the amount of pollutants discharged to our nation’s waters by approximately 105 million pounds per year over the 2015 rule.

Promoting Greater Water Reuse and Recycling Nationwide

With 80 percent of states anticipating some freshwater shortages in the next decade, all levels of government have a responsibility to ensure that Americans have access to reliable sources of clean and safe water. Water reuse has become a

rapidly expanding means of supporting the nation’s communities and economy by bolstering safe and reliable water supplies for human consumption, agriculture, business, industry, recreation, and healthy ecosystems. EPA, under the Trump administration, has made it a priority to promote the reuse of water for beneficial purposes instead of treating it as waste. In September, EPA released the draft National Water Reuse Action Plan for public comment. The draft National Water Reuse Action Plan represents the first initiative of this magnitude that has been coordinated across the water sector and identifies priority actions and the leadership and collaboration that is needed between governmental and nongovernmental organizations to implement these actions. When finalized in February 2020, the National Water Reuse Action Plan will include clear commitments and milestones for specific actions that will further water reuse.

What They’re Saying

EPA Assistant Administrator for Water David

Ross: “Forty states anticipate experiencing fresh water shortages in certain regions within their borders over the next decade. Diversifying our nation’s water portfolio must be a nationwide priority, and water reuse has the potential to ensure the viability of our water economy for generations to come.”

U.S. Department of the Interior Assistant Secretary for Water and Science Tim Petty:

“The Water Reuse Action Plan is a dynamic collaboration of federal partners and stakeholders to innovate and utilize water reuse technology to meet water challenges of today and prepare for the water needs of tomorrow. Developing and deploying these technologies to secure a safe water supply for our nation is a top priority of this administration.”

U.S. Department of Energy Office of Energy Efficiency and Renewable Energy Assistant

Secretary Daniel Simmons: “Water and energy are intrinsically intertwined critical resources for America. New research and technology innovation, along with increased collaborations identified in the new Water Reuse Action Plan will help advance our nations’ water security and reduce water-related risks for our energy systems.”

Supporting America's Water Sector Workforce

In September, EPA announced its Water Workforce Initiative, a first-of-its-kind initiative by the agency to help cities and communities across the country that are facing critical staffing shortages for the operation and maintenance of essential drinking water and wastewater infrastructure. The goal of this new initiative is to provide federal leadership, collaborate with partners, and increase public awareness to bolster interest in water sector careers – a field that is charged with ensuring that all Americans have access to clean and safe water.



EPA Assistant Administrator for Water David Ross tours the Green Bay Water Utility Facility with Kurt Thiede, current EPA Region 5 Administrator.

“Ensuring all Americans have access to clean water is a top priority of the Trump administration, and we can’t fulfill that goal without supporting the skilled workers who provide clean drinking water and safe wastewater treatment every day,” **said EPA Administrator Andrew Wheeler.** “We are launching the Water Workforce Initiative to help local communities ensure they have enough highly trained workers to operate the water utilities of today and tomorrow.”

Approximately one-third of drinking water and wastewater operators in the U.S. will be eligible to retire in the next ten years. Due to several factors, including limited awareness of water careers, the sector often faces challenges with recruitment and retention of the skilled workers required in today’s high-tech water sector. And due to the scale of this challenge and the implications for environmental and public health protections, collaboration across federal, state, tribal and local governments as well as public utilities, the private sector, water sector

associations, community groups, and educational institutions is essential to developing an actionable Water Workforce Initiative.

“Building a dynamic and diverse water workforce for the 21st century is absolutely vital to continuing to deliver on our sector’s mission to protect public health and the environment,” **said Water Environment Federation President Tom Kunetz.** “WEF is very grateful that EPA is collaborating with our organization and others to address critical workforce needs and believes the agency’s support will help advance current initiatives and better target federal efforts to the water sector.”

“EPA looks forward to capturing innovative ideas and collaborative actions through our Water Workforce Initiative so that we can take meaningful steps to ensure we have a strong water sector workforce for generations to come,” **said EPA Assistant Administrator for Water David Ross.**



[In The News] Deseret News

“A leading U.S. Environmental Protection Agency administrator called water plant operators the ‘silent everyday unsung heroes’ who are on the front lines for protecting public health. While police officers, firefighters, and teachers are routinely praised for their value in the public service sector, the skilled workers who provide clean drinking water at the tap and treat wastewater often go unnoticed...”

Ross lamented what he says will be a 30 to 40 percent decrease in skilled labor in the United States over the coming years as the aging workforce retires.

‘Without this sector, we don’t have society as we know it,’ he said...

Ross said he hopes EPA and others in the water world can partner with the Department of Defense to take advantage of the skill sets in retiring military personnel as a way to tap into ‘human capital.’”

Amy Joi O’Donoghue [September 12, 2019]

LAND: Revitalizing Land for Reuse

Superfund

In Fiscal Year (FY) 2019 EPA deleted all or part of 27 sites from Superfund's NPL, the largest number of deletions in a single year since FY 2001. This represents the third 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.



The agency's FY 2019 deletions include 12 full sites and parts of 15 sites.

Sites EPA Completely Deleted from the NPL:

1. Buckeye Reclamation in St. Clairsville, Ohio
2. Duell & Gardner Landfill in Dalton Township, Michigan
3. Electro-Coatings, Inc in Cedar Rapids, Iowa
4. Ellenville Scrap Iron and Metal in Ellenville, New York
5. Intel Corp. (Santa Clara III) in Santa Clara, California
6. Intermountain Waste Oil Refinery in Bountiful, Utah
7. MGM Brakes in Cloverdale, California
8. Mystery Bridge Rd/U.S. Highway 20 in Evansville, Wyoming
9. Peter Cooper in Gowanda, New York

10. Strasburg Landfill in Newlin Township, Pennsylvania
11. Tennessee Products in Chattanooga, Tennessee
12. Tomah Armory in Tomah, Wisconsin

Sites Partially Deleted from the NPL:

1. Beckman Instruments (Porterville Plant) in Portville, California
2. Beloit Corp. in Rockton, Illinois
3. Cleburn Street Well in Grand Island, Nebraska
4. Escambia Wood in Pensacola, Florida
5. Libby Asbestos in Libby, Montana
6. Novak Sanitary Landfill in South Whitehall Township, Pennsylvania
7. Omaha Lead in Omaha, Nebraska
8. Robintech, Inc./National Pipe Co. in Vestal, New York
9. Shaw Avenue Dump in Charles City, Iowa
10. South Minneapolis Residential Soil Contamination in Minneapolis, Minnesota
11. South Valley in Albuquerque, New Mexico
12. South Weymouth Naval Air Station in Weymouth, Massachusetts
13. Townsend Saw Chain Co. in Pontiac, South Carolina
14. Twin Cities Army Ammunition Plant in New Brighton, Minnesota
15. Vasquez Boulevard and I-70 in Denver, Colorado

Superfund Redevelopment

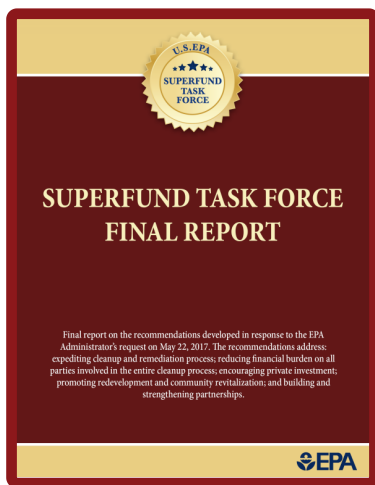
EPA celebrated the 20th anniversary of the Superfund Redevelopment Initiative, launched in 1999 with the goal of returning formerly contaminated lands to long-term sustainable and productive reuse for communities across the country. In 2019, 48 sites reached Sitewide Ready for Anticipated Use status, meaning they were ready for communities to reuse sites which were formerly contaminated land. Returning Superfund sites back to productive use has resulted in dramatic changes in communities by improving the quality of life, raising property values, and providing needed services to communities.

Superfund Task Force

In September, at the Southside Chattanooga

Superfund Site, EPA Administrator Andrew Wheeler announced the completion of the Superfund Task Force and issued the Task Force’s final report outlining significant accomplishments over the past two years at Superfund sites across the country.

“Thanks to the hard work of EPA career officials, the Superfund Task Force has strengthened the program in numerous ways, from accelerating cleanups to promoting redevelopment to improving community engagement,” **said Administrator Andrew Wheeler.** “The recommendations generated by the Task Force and applied by the Superfund program have directly improved the health and economic opportunity of thousands of people living near Superfund sites. We are taking concrete steps to ensure that the work of the Task Force continues to enhance the Superfund program moving forward.”



The important work of the Task Force will continue under the Superfund Program and at all sites on the NPL. The agency will continue to prioritize expediting cleanups to protect people’s health and the environment. Moving forward, the agency plans to:

- Improve accountability and ensure the work continues in the future by tracking and reporting on our progress with a new set of performance measures.
- Conduct a strategic and comprehensive portfolio review of every site remaining on the NPL to enable EPA to better utilize the Task Force’s tools and lessons learned in advancing cleanups across the country.

- Continue to identify and implement new opportunities and approaches to improve the program’s performance and effectiveness.

Highlights of the Superfund Task Force

Goal 1: Expediting Cleanup and Remediation

The Task Force developed several tools to expedite cleanup and remediation at sites including the Administrator’s Emphasis List, a list of sites targeted for the administrator’s immediate and intense attention. The agency will continue using the Emphasis List to focus on sites needing immediate and intense attention and will update the list quarterly.

Goal 2: Re-Invigorating Responsible Party Cleanup and Reuse

The Task Force developed new enforcement guidance for EPA’s regional offices to accelerate remedial design starts at potentially responsible party (PRP)-lead Superfund sites. Moving forward, the guidance’s recommended settlement strategy will be considered by EPA regions as a matter of national practice. This guidance has accelerated work at several sites, including the B.F. Goodrich Site in Calvert City, Kentucky.

Goal 3: Encouraging Private Investment

The Task Force recognized that EPA should support, where appropriate, innovative approaches to promote third-party investment in cleanup and reuse of contaminated properties consistent with statutory authorities. For example: At the Madison County Mines Site in Fredericktown, Missouri, EPA entered into an administrative settlement with Missouri Mining Investments, LLC to conduct removal actions at the site. This will result in the consolidation and capping of on-site mine waste and allow the approximately 1,750-acre property to be redeveloped for future mining of cobalt and other metals. Missouri Mining Investments constructed a new tailings processing facility to recover metals from existing mine waste on site, and production has already begun.

Goal 4: Promoting Redevelopment and Community Revitalization

The Task Force worked to increase the number of NPL sites that are returned to communities for

redevelopment through focused management attention and improved program practices. In FY 2019, EPA achieved the goal of sitewide ready for anticipated use at 48 sites. EPA will continue to post specific information about sites available for redevelopment prominently on the Superfund Redevelopment website for stakeholders, developers, and businesses seeking information.

Goal 5: Engaging Partners and Stakeholders

The Task Force initiated a number of ongoing outreach activities to engage communities near Superfund sites, for example:

- Partnership and Stakeholder Engagement Strategy: EPA developed and released a “Partnership and Stakeholder Engagement Strategy” to strengthen EPA partnerships and increase public participation and transparency at Superfund sites across the country.
- Risk Communication Strategy: The agency developed a plan to improve risk communication and community involvement practices during the long-term stewardship phase of Superfund site remediation. Lessons learned from implementing this plan will be applied across the life-cycle of the Superfund process.

Brownfields

Under the Trump administration, EPA’s Brownfield and Land Revitalization Program has provided approximately \$222 million directly to communities and nonprofits for cleanup and redevelopment, job creation, and economic development through the award of approximately 793 grants. The agency has also allocated \$139.8 million to approximately 171 state and tribal entities to establish and enhance their brownfields response programs. These grants provide communities with an opportunity to transform contaminated sites into community assets that attract jobs and achieve broader economic development outcomes.

In June, EPA Administrator Andrew Wheeler, joined by the White House Opportunity and Revitalization Council Executive Director Scott Turner, traveled to Dauphin County, Pennsylvania, to announce that 149 communities were selected to receive 151 grant awards totaling \$64,623,553 in EPA

Brownfields funding through the Multipurpose, Assessment, and Cleanup Grant Programs. These funds will aid under-served and economically disadvantaged communities in Opportunity Zones and other parts of the country in assessing and cleaning up abandoned industrial and commercial properties. Forty percent of the communities selected for funding will receive assistance for the first time.

“These grants fulfill several of President Trump’s top priorities simultaneously: helping communities in need transform contaminated sites into community assets that not only create jobs and jumpstart economic development but also improve public health and the environment,” **said EPA Administrator Andrew Wheeler.** “We are targeting these funds to areas that need them the most. Approximately 40 percent of the selected recipients are receiving Brownfields grants for the first time, which means we are reaching areas that may have previously been neglected, and 108 of the selected communities have identified sites or targeted areas that fall within Opportunity Zones.”



White House Opportunity and Revitalization Council Executive Director Scott Turner speaks in Dauphin County.

“I am truly excited to join as EPA Administrator Andrew Wheeler announces over \$64 million in Brownfield funding,” **said White House Opportunity and Revitalization Council Executive Director Scott Turner.** “The Brownfields grant program is a tremendous vehicle for bringing real revitalization and transformation to the distressed communities of America. As the Executive Director of the White House Opportunity and Revitalization Council, I am pleased that EPA continues to support the Council and the President’s work in this area. In fact, of the

149 communities selected for these grants, 108 will benefit communities with Opportunity Zones. I look forward to seeing the impact that these grants will have on neighborhoods and citizens across the country.”

funding for 24 current successful Brownfields Revolving Loan Fund (RLF) grantees in June. The supplemental funds announced went to communities including the City of Atlanta, City of Rockford, Indiana Finance Authority, City of Worcester, City of Racine, and Vermont Agency of Commerce and Community Development, which have demonstrated success in using their RLF funds to clean up and redevelop brownfields 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.



Administrator Wheeler presents Dauphin County, Pennsylvania with a Brownfields Grant.

Grants awarded by EPA’s Brownfield 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 grants have been shown to:

- **Increase Local Tax Revenue:** 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.
- **Increase Residential Property Values:** Another study found that property values of homes near revitalized Brownfields sites increased between 5 percent and 15 percent following cleanup.

Rounding out the fiscal year, EPA announced the selection of 26 organizations to receive a total of \$5.1 million in grants for environmental job training programs across the country. Funded through the agency’s successful Environmental Workforce Development and Job Training Program, these grants help to create a skilled workforce in communities where EPA brownfields assessment and cleanup activities are taking place.

Of the programs selected for funding this year, 31 percent plan to serve residents of communities experiencing persistent poverty and nearly 70 percent plan to serve veterans. All 26 selected programs plan to serve communities with census tracts designated as federal Opportunity Zones – an economically-distressed community where new investments, under certain conditions, may be eligible for preferential tax treatment.

EPA BROWNFIELDS GRANTS
 PROVIDE COMMUNITIES WITH AN OPPORTUNITY
 To Transform Contaminated Sites into Community Assets

1,921 PROPERTIES CLEANED UP

155,760 JOBS LEVERAGED

7,741 PROPERTIES MADE READY FOR REUSE

epa.gov/brownfields

Selectees:

1. Alaska Forum Inc. (Anchorage, Alaska)
2. Auberle (McKeesport, Pennsylvania)
3. City of New Bedford (New Bedford, Massachusetts)
4. City of Pittsburg (Pittsburg, California)
5. City of Richmond (Richmond, California)
6. City of Rochester (Rochester, New York)
7. City of Springfield (Springfield, Missouri)
8. Civic Works Inc. (Baltimore, Maryland)
9. Colorado Department of Local Affairs (Denver, Colorado)
10. Corporation to Develop Communities of Tampa Inc. (Tampa, Florida)

EPA also announced \$9.3 million in supplemental

11. Cypress Mandela Training Center Inc. (Oakland, California)
12. Earth Conservancy (Ashley, Pennsylvania)
13. El Centro (Kansas City, Kansas)
14. Full Employment Council (Kansas City, Missouri)
15. Great Lakes Community Conservation Corps. (Milwaukee, Wisconsin)
16. Hunters Point Family (San Francisco, California)
17. Lorain County Board of Commissioners (Elyria, Ohio)
18. Lost Angeles Conservations Corps (Los Angeles, California)
19. OAI Inc. (Chicago, Illinois)
20. PathStone Corporation (Rochester, New York)
21. Southern University at Shreveport (Shreveport, Louisiana)
22. St. Louis Community College (Bridgeton, Missouri)
23. The Fortune Society Inc. (Long Island City, New York)
24. Training to Work an Industry Niche (Charlotte, North Carolina.)
25. Workforce Inc. dba RecycleForce (Indianapolis, Indiana)
26. Zender Environmental Health and Research Group (Anchorage, Alaska)

national conference, which provided our brownfields communities and stakeholders with an unparalleled opportunity to learn how to build and improve local programs.”

This conference provided a dynamic educational program of speakers, discussions, mobile workshops, films, and other learning formats. Case study examples, program updates, and useful strategies were provided to help attendees meet various brownfield challenges head on. Topics covered at the event included:

- Success Stories from the Environmental Justice Communities
- Sustainability, Livability, Resiliency
- Financing Options, Real Estate, and Economic Development
- Smart Cities and Communities
- Community Engagement and Environmental Justice
- State, Tribal, and Local Government Programs and Partnerships
- Liability and Enforcement
- Cleanup and Remediation Approaches
- Small Communities and Rural Places

2019 Brownfields Conference

In December, EPA cohosted the 2019 Brownfields National Training Conference in Los Angeles, California with the International City/County Management Association. More than 2,000 stakeholders in cleanup and redevelopment attended this year’s conference to learn from each other about sustainable reuse of brownfield sites and share success stories from across the country. Participants included representatives from communities, non-profits, real estate development, the building industry, and academic institutions, as well as local, state, tribal, and federal government leaders.

“Finding ways to revitalize vacant, abandoned, contaminated or potentially contaminated properties is at the heart of EPA’s cleanup programs,” **said EPA Office of Land and Emergency Management Assistant Administrator Peter Wright.** “EPA is proud to have sponsored this



Assistant Administrator Wright speaks at the 2019 Brownfields National Training Conference.

Emergency Management

Final Rule to Add Reporting Exemption Under EPCRA for Air Emissions from Animal Waste

In June, EPA Administrator Andrew Wheeler signed a final rule amending the emergency release notification regulations under the Emergency Planning and Community Right-to-Know Act (EPCRA). The amendments clarify that reporting of routine air emissions from animal waste at farms is not required under EPCRA.

The final rule comes as first responders across the country have repeatedly reminded the agency that community-specific protocols are determined between local responders and animal producers well in advance of emergencies. These strong partnerships provide a platform for resolving issues when they arise without the need for a national one-size-fits-all approach.

“This final rule provides clarity and certainty to the regulated community that animal waste emissions from farms do not need to be reported under EPCRA,” **said EPA Administrator Andrew Wheeler.** “This action eliminates an onerous reporting requirement and allows emergency responders and farmers to focus on protecting the public and feeding the nation, not routine animal waste emissions.”

“The goal of emergency response officials and local emergency planning committees (LEPCs) is to prepare communities for emergency threats related to hazardous chemical releases. Such emergency threats do not include ‘best guess’ reporting on day-to-day emissions on farms and animal operations,” **said National Association of SARA Title III Program Officials (NASTTPO) President Tim Gablehouse.** “The focus of LEPCs should be and is on chemical hazards that present meaningful risk of harm to community members and first responders. We look forward to working on enhanced coordination and cooperation between all community members to improve preparedness for hazardous chemical releases.”

Risk Management Program Reconsideration Rule
In November, the agency released the Risk Management Program (RMP) Reconsideration final rule, which modifies and improves the existing rule to remove burdensome, costly, unnecessary amendments while maintaining appropriate protections and ensuring first responders have access to all of the necessary safety information. This rule also resolves important security concerns.

EPA’s final RMP reconsideration rule maintains important public safety measures. Under this final rule, no less safety information will be available to first responders and state and federal regulators than was available under any previous version

of the RMP rule. It also directly addresses the concerns of local emergency responders and other federal agencies including the U.S. Small Business Administration that were originally raised during the rulemaking of the 2017 RMP Amendments.

The revisions in this rule, based on a careful analysis of over a decade of data, are designed to drive effective emergency planning and continue to support the long-term trend of fewer significant chemical accidents – a trend that has continued since the original rule was finalized in 1996. The rule reduces unnecessary and ineffective regulatory burdens on facilities and emergency responders (many of whom in rural areas are volunteers); harmonizes with the Occupational Safety and Health Administration’s (OSHA) Process Safety Management standard; and saves Americans roughly \$88 million a year.

Here’s What People Had to Say

Louisiana Attorney General Jeff Landry: “The Obama administration not only subjected facilities to even more burdensome, duplicative, and needless regulation; but it also made all of us more vulnerable to security threats. Instead of making facilities safer and more secure, the Obama administration seemed intent on making unnecessary and redundant regulation enacted only for regulation’s sake. Fortunately, President Trump has taken action to protect both public safety and jobs. President Trump’s revisions account for better coordination and communication which will ultimately prevent accidents, save lives, and protect property.”

Texas Attorney General Ken Paxton: “I am grateful to the EPA for making the changes necessary to get the Risk Management Plan rule back in line with public safety and a proper balance of power between state and federal authorities. These revisions to the Obama-administrations’ last-minute rule will make Texans safer, ease the burden on state and local governments, and restore some common sense to the regulatory process. By listening to the state and local experts who have pointed out the national security and public safety risks of publishing sensitive information about refineries, chemical plants, manufacturing

facilities, and agricultural operations, the Trump administration has shown its dedication to putting the rule of law and the safety of Americans first.”

Oklahoma Secretary of Energy and Environment

Ken Wagner: “Today’s action in updating the RMP Rule is critical to protecting the public and striking a balance to require transparency while avoiding providing a roadmap for those who would occasion harm to the public. The State of Oklahoma commends Administrator Wheeler for listening to emergency responders and security experts to create the balance required to best protect the public while safeguarding emergency responders and national security.”

Calcasieu Parish Local Emergency Planning Committee Chairman Mason G. Lindsay:

“(These changes) will help the Calcasieu Parish LEPC coordinate with our stationary facilities in our Parish... The change will help us to collect emergency contacts, conduct drills, review plans and incidents. We presently have an incident review process for facilities that is voluntary. The changes would encourage facilities to participate in our review process.”

Emergency Response & Natural Disasters

This year, EPA participated in and coordinated 95 emergency response removal actions that included Hurricane Dorian and a 46-car train derailment releasing 13,000 gallons of sulfuric acid in the Canadian border tunnel.

[Definitions]

Emergency Response Removal Actions:

Responses performed at sites around the country to eliminate or reduce threats to public health or the environment from the release, or potential release, or hazardous substances or pollutants or contaminants that may pose an imminent and substantial danger to public health or welfare.

1. *Historic Four-State Flood Response:* In March 2019, catastrophic and historic flooding occurred across significant portions of Nebraska, Iowa, Kansas, and Missouri. In response, EPA Region 7 activated in all four states for the first time since the 1993 floods. In total, Region 7 received 11 Mission

Assignments from the Federal Emergency Management Agency (FEMA) over the course of four months to identify and recover orphan containers and hazardous materials that settled on the interstates, highways, levees, and wildlife management areas. This flood response work resulted in the collection of more than 5,000 containers from over 1,100 river miles and 1,000 acres of wildlife management areas. Over 75 percent of the collected materials were diverted from landfills by reusing or recycling the materials or returning them to owners. The response team also completed 45 Superfund National Priority List site assessments, 75 Facility Response Plan facility assessments, 76 RCRA Corrective Action facility assessments, and 617 Risk Management Plan facility assessments in potentially flood impacted areas.

2. *Comprehensive Hurricane Irma and Maria Recovery Assistance in Puerto Rico and U.S. Virgin Islands:* EPA Region 2 Administrator Pete Lopez and his team continue their comprehensive engagement in advancing recovery from 2017’s Hurricanes Irma and Maria, as well as tackling ongoing environmental challenges in the Caribbean.



EPA Region 2 Administrator Lopez visits microgrid project in Puerto Rico.

Regional leadership and staff continue to work with the Commonwealth, Territory; local and federal partners to strengthen partnerships formed during the emergency response. As part of its continuing efforts to help the Caribbean recover from the long-term impacts from Hurricanes Irma and Maria, EPA awarded \$6.2 million to the Puerto Rico Department of Natural and Environmental Resources (DNER)

as the first installment of a \$40 million grant for hazardous and solid waste management financial assistance.

3. *Superbowl LIII Support:* During Superbowl LIII, Region 4 co-deployed EPA air monitoring equipment with local government agencies and the U.S. Department of Homeland Security at the Mercedes Benz Stadium and associated event locations in Atlanta, Georgia.
4. *Tank Fire Partnership Response:* In response to a tank fire in March, EPA, Texas Commission on Environmental Quality (TCEQ), and local agencies joined the Intercontinental Terminals Company in a unified command. EPA's Airborne Spectral Photometric Environmental Collection Technology mobile asset provided support with daily chemical surveys and high-resolution aerial photography of the facility and oil collection efforts on Houston Bay. The EPA Trace Atmosphere Gas Analyzer, a self-contained mobile laboratory capable of real-time sampling of outdoor air or emissions, also provided continuous air monitoring of organic compounds.

In June, EPA and FEMA announced an MOU that streamlines coordination between FEMA and the EPA-funded SRF programs so that funding to restore vital water infrastructure can be provided as quickly as possible in times of disaster. In disaster situations where cash reserves are stretched thin, the EPA-FEMA MOU provides a tribe or local government access to a no-interest or low-interest loan from its SRF to help pay for the immediate restoration of vital drinking water and wastewater infrastructure.

EPA also published an updated Planning for Natural Disaster Debris Guidance to assist state, tribal, and local governments in strengthening planning for future incidents and in helping communities better prepare for the waste management challenges that exist immediately after a disaster occurs. It is designed to help all communities create disaster debris management plans, which EPA strongly encourages, and includes the following guidance:

- Recommended components of a debris management plan;

- Suggested management options for various natural disaster debris streams;
- A collection of case studies that highlights how several communities prepared for and managed debris generated by recent natural disasters;
- Resources to consult in planning for natural disasters; and
- EPA's recommended pre-incident planning process to help prepare communities for effective disaster debris management.

Waste

Coal Combustion Residuals

This past year, EPA issued two proposals to revise specific provisions of the 2015 final coal combustion residuals (CCR) rule. CCR is commonly known as coal ash, fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from coal-fired electricity utilities, in landfills and impoundments. These proposals address matters raised in litigation and implement court decisions, legislation, petitions for reconsideration, and rule implementation, and encourage appropriate beneficial use. These proposals are a large part of EPA's efforts to provide a clear and stable regulatory framework for coal ash management and disposal. EPA will be proposing additional revisions and the regulations governing a federal permit program in FY 2020.

One of the agency's proposals would amend certain closure provisions in the regulations for the disposal of coal ash. The second proposal addresses issues associated with managing piles of coal ash and encourages appropriate beneficial use while providing protection for human health and the environment. The proposed beneficial use provisions are designed to deliver additional positive environmental, economic, and product benefits.

Federal and State Coal Ash Permitting

Following the approval of the first-in-the-nation state coal ash permitting program for Oklahoma in 2018, EPA proposed a streamlined, efficient, federal permitting program for the disposal of CCR and approved the state of Georgia's permit program for the management of CCR in landfills and surface impoundments this year. This approval makes Georgia the second state in the nation with an approved coal ash permit program.

The proposal sets up a federal permitting program for coal ash units as required by the 2016 Water Infrastructure Improvements for the Nation Act. EPA has used the lessons learned from many years of implementing other permitting programs to design an efficient, federal CCR permitting process. EPA would implement this permit program directly in Indian Country, as it does other Resource Conservation and Recovery Act programs, and at coal ash facilities located in states without their own approved coal ash permit program. Issuance of a permit will provide increased clarity to owners and operators of units about their obligations. The permit process will also provide an additional opportunity for public participation.

Aerosol Cans Final Rule

EPA finalized a streamlined system for managing hazardous waste aerosol cans that is clear, practical, and protective and promotes recycling. EPA estimates this change will save at least \$5.3 million annually in regulatory costs.

“This rule will benefit approximately 25,000 facilities across numerous industries such as the retail, construction, and manufacturing sectors” **said EPA Administrator Andrew Wheeler.** “The simplified structure of the universal waste program will help improve regulatory compliance, make aerosol can collection more economical, and facilitate the environmentally sound recycling of this common waste stream.”

This final rule will promote greater consistency for the regulated community as several states already include aerosol cans in their universal waste programs. The final rule offers a more uniform, nationwide handling system and furthers our effective partnerships with states and tribes by making it easier for states to add this waste stream to their universal waste programs.

Hazardous Waste Pharmaceuticals Final Rule

EPA Administrator Andrew Wheeler signed a final rule streamlining standards for managing hazardous waste pharmaceuticals in the healthcare sector and preventing pharmaceutical waste from entering the nation’s waterways. The final rule is expected to result in up to \$15 million in costs savings annually.

“These common-sense updates will help the healthcare sector safely manage hazardous waste pharmaceuticals and will reduce the amount of pharmaceutical waste entering our waterways by roughly 2,000 tons,” **said EPA Acting Administrator Andrew Wheeler.** “By streamlining the standards for the healthcare sector, this final rule will protect drinking water and generate up to \$15 million annually in cost savings.”

The final rule offers streamlined standards for handling pharmaceutical wastes to better fit the operations of the healthcare sector while maintaining protection of human health and the environment. In addition, as part of this rule, EPA is bolstering the protection of our nation’s waterways by prohibiting the “sewerage” of hazardous waste pharmaceuticals. This will make our drinking and surface water safer and healthier by reducing the amount of hazardous waste pharmaceuticals entering our waterways by an estimated 1,600 – 2,300 tons annually. EPA has a long-standing policy of strongly discouraging the flushing of pharmaceuticals down the drain in any situation.

The rule provides flexibilities and benefits for hospitals, pharmacies, and doctor’s offices to safely manage hazardous waste pharmaceuticals. Also, under this final rule, FDA-approved over-the-counter nicotine replacement therapies (i.e., gums, patches, lozenges) will no longer be considered hazardous waste when discarded, which will result in significant cost savings and burden reduction for the healthcare industry. Finally, the final rule eliminates dual regulation for hazardous waste pharmaceuticals that are also Drug Enforcement Agency controlled substances, further easing regulatory burden.

Sustainable Materials Management



Recycling

In honor of America Recycles Week in November, EPA hosted the second annual America Recycles Summit on America Recycles Day and the first-ever Innovation Fair. The Innovation Fair featured entrepreneurs from across the recycling system showcasing their innovative products, services, outreach, and technologies.

The Summit engaged executives and leaders from across the recycling value chain to build on their success over the last year and commit to continuing to work together through implementation of a national framework to advance recycling in the U.S.



Administrator Wheeler participates in the Recycling Summit roundtable.

“On America Recycles Day, I am proud to release the National Framework for Advancing the U.S. Recycling System, which summarizes our accomplishments over the past year and recommends actions for 2020,” **said EPA Administrator Andrew Wheeler.** “Under the Trump administration, EPA is working diligently to identify market-based strategies and innovative ideas to create a more sustainable recycling system in America and across the globe. I look forward to continuing our work with our partners to improve infrastructure, develop secondary markets, and more effectively communicate with the public about addressing the entire lifecycle of recycled materials.”

“This is an issue that touches homes and communities across the nation and at the same time offers everyone the opportunity to be better stewards of the environment,” **said Region 2 Administrator Pete Lopez.** “Under the leadership

of Administrator Wheeler, EPA is seeking to help provide an incredible opportunity for bringing a broad cross section of groups and individuals to have fruitful discussions about the complex challenges of recycling and the development of real-world, sustainable solutions.”

Participants in the 2019 Summit represented a broad range of U.S.-based organizations, including manufacturers and brands; federal, state, tribal, and local governments; non-profit organizations; and industry trade associations.

Since the 2018 Summit, more than 100 additional organizations have signed the pledge on EPA’s website, committing to leveraging their collective expertise, strengths and resources to address U.S. recycling challenges and opportunities. As of the end of 2019, 179 organizations in total have signed the pledge.

Reducing Food Waste

This year, EPA and USDA worked with President Trump to successfully designate April 2019 as “Winning on Reducing Food Waste Month” to garner national attention on the need to address food loss and waste.

“Reducing food waste and redirecting excess food to people, animals, or energy production provide immediate benefits to public health and the environment. I am proud to join President Trump and my federal partners in recognizing April as Winning on Reducing Food Waste Month,” **said EPA Administrator Andrew Wheeler.** “We are working closely with our federal partners and stakeholders across the nation to reduce the amount of food going to landfills and maximize the value of our food resources.”

“USDA alone cannot end food waste, it will require partners from across the supply chain working together on innovative solutions and consumer education. We need to feed our hungry world and by reducing food waste, we can more wisely use the resources we have. I am pleased President Trump identified this issue as one of importance, and I look forward to USDA’s continued work with our agency partners at EPA and FDA to change behavior in the long term on food waste,” **said U.S. Secretary of**

Agriculture Sonny Perdue.

“With 1 in 6 people getting a foodborne illness every year in the U.S. and up to 40 percent of food left uneaten, it’s understandable why food safety and food waste are major societal concerns,” **said FDA Deputy Commissioner Frank Yiannas.** “The FDA is working to strengthen its collaboration and coordination with EPA and USDA to strategically align our federal efforts between the two issues to better educate Americans on how to reduce food waste and how it can be done safely.”



To celebrate, EPA, USDA, and FDA hosted an event with state, local and community leaders and stakeholders to discuss how government can reduce food loss and waste during “Winning on Reducing Food Waste Month.” At the event, the three agencies released the Winning on Reducing Food Waste Federal Interagency Strategy, which prioritizes six main areas for action in reducing food loss and waste.

1. Enhance interagency coordination;
2. Increase consumer education and outreach efforts;
3. Improve coordination and guidance on food loss and waste measurement;
4. Clarify and communicate information on food safety, food date labels, and food donations;
5. Collaborate with private industry to reduce food loss and waste across the supply chain; and
6. Encourage food waste reduction by federal agencies in their respective facilities.

Additionally, EPA, USDA, and FDA signed a formal agreement with the non-government organization ReFed outlining closer cooperation on reducing food waste to achieve the U.S.’s national goal of reducing

food loss and waste by 50 percent by 2030. The agencies and ReFED agreed to develop approaches for measuring the success of food waste strategies, advance data collection and measurement efforts, and participate in the Further with Food: Center for Food Loss and Waste, among other activities.

In August 2019, Administrator Wheeler recognized the St. Louis Cardinals baseball club and the Urban Chestnut Brewing Company for their efforts to divert, donate, and compost food waste during an on-field ceremony at St. Louis’ Busch Stadium.

In October, EPA, USDA, and FDA signed an MOU with the Food Waste Reduction Alliance (FWRA) to formalize industry education and outreach efforts on reducing food loss and waste. The founding members of FWRA include, the Grocery Manufacturers Association, Food Marketing Institute, and National Restaurant Association, which represent three major sectors of the food supply chain: food manufacturing, retail, and restaurant and food service.

Administrator Wheeler also went on several food waste related tours in New York City in October. He toured FreshDirect’s newest Bronx facility and then participated in an onsite roundtable discussion on NYC’s food waste reduction efforts with leaders from ReFED, City Harvest NYC, and PepsiCo. Administrator Wheeler and EPA staff joined NGO Rock and Wrap it Up! to hand out excess food diverted from Yankee Stadium and Costco to local Bronx residents in need at Woodycrest United Methodist Church.

Leaking Underground Storage Tank (LUST) Cleanups

EPA and its partners completed 8,358 LUST cleanups, which was nearly a 3 percent increase over FY18 totals. The increase marked the end of a multi-year decline in the cleanups completed since 2013. EPA placed a priority on working with state and tribal partners to increase the number of cleanups completed. As a result, several states have effectively implemented dedicated efforts which has not only boosted their cleanup activities but has also resulted in more cleanups being completed nationwide.

CHEMICALS: Ensuring Chemical Safety

Continued Progress under the Frank R. Lautenberg for the 21st Century Act

Over the past year, EPA continued implementation of the 2016 Frank R. Lautenberg Chemical Safety for the 21st Century Act (Lautenberg Act), which amended the Toxic Substances Control Act (TSCA). In addition to reviewing the chemicals currently in commerce that many rely on daily, EPA staff worked tirelessly to ensure that the most modern and innovative chemicals get to market quickly and safely, providing regulatory certainty for manufacturers and confidence for American consumers.

Ensuring Chemical Safety under Amended TSCA

On the third anniversary of amended TSCA, EPA is:

- ✓ Evaluating the safety of existing chemicals using the best available science
- ✓ Reviewing the safety of all new chemicals before they enter the market
- ✓ Actively working to reduce animal testing
- ✓ Strengthening the regulation of asbestos to close a dangerous loophole and protect consumers
- ✓ Increasing transparency about information on chemicals while protecting verified confidential information



#TSCAat3

- **Updating the TSCA Chemical Substance Inventory:** In February, EPA released a major update to the list of chemical substances that are manufactured or processed (including imports) in the U.S. For the first time, all the listed chemical substances are designated as “active” or “inactive” in U.S. commerce. This gives EPA and the public an up-to-date picture of the chemical substances in commerce, which is important for transparency and the agency’s ongoing existing chemical review process. The update in September included another important transparency improvement for stakeholders: the inclusion of unique identifier (UID) information. The UID is a numerical identifier assigned to a chemical substance when EPA approves a confidential business information (CBI) claim for specific chemical identity. This provides the public with a way to connect the specific chemical identity of chemicals previously listed on the confidential portion of the TSCA Inventory with other relevant information in the agency’s holdings.
- **Conducting Peer Reviews of Existing Chemical Risk Evaluations:** In 2019, EPA continued its work on the first ten chemicals selected for risk evaluation under TSCA. During the year, EPA held four peer review meetings to review the draft risk evaluations of six of those chemicals. EPA is going beyond what TSCA requires by engaging the Scientific Advisory Committee on Chemicals peer review process for each of EPA’s first ten risk evaluations. This increases public transparency and involvement in the risk evaluation process and the scientific credibility of and public confidence in EPA’s findings.
- **Designating High Priority Chemicals for Risk Evaluation:** In March, EPA published a list of 40 chemicals to initiate a new process of prioritizing and reviewing chemicals currently in commerce. EPA has proposed that 20 of those chemicals be designated as low priority for evaluation. In December, EPA designated the remaining 20 of these chemicals as “high priority” for risk evaluation: seven chlorinated solvents, six phthalates, four flame retardants, formaldehyde, a fragrance additive, and a polymer. In 2020, EPA will begin a 3-year risk evaluation process to determine whether each high-priority chemical, under the conditions of use, presents an unreasonable risk.
- **Proposing PBT Rule:** In June, EPA proposed a rule to reduce exposure to four persistent, bioaccumulative, and toxic chemicals (PBTs) in order to protect human health and the environment. The Lautenberg Act requires EPA to take expedited action on specific PBT chemicals to address risk and reduce exposures to the extent practicable. EPA identified five PBT chemicals for expedited action in 2016; for one of those five chemicals, hexachlorobutadiene, EPA evaluated the conditions of use and proposed no action because the agency did not identify any practicable ways of further reducing

human or environmental exposure to the chemical substance.

Chemical Safety Accomplishments under Amended TSCA

At the third anniversary of amended TSCA, EPA has:

- ✓ Enhanced transparency by providing stakeholders and the public with more information on new chemicals undergoing review and how we conduct our reviews
- ✓ Strengthened asbestos regulation to close a dangerous loophole and protect consumers
- ✓ Selected 40 chemicals to begin the prioritization process
- ✓ Banned consumer sales of methylene chloride paint removers
- ✓ Published comprehensive list of chemicals being actively manufactured, processed, and imported in the U.S. from 2009 to today
- ✓ Reviewed more than 2,000 new chemicals cases for unreasonable risks to health or the environment
- ✓ Released first draft risk evaluation for a chemical under amended TSCA
- ✓ Finalized four chemical safety framework rules
- ✓ Developed strategy to reduce animal testing
- ✓ Issued final rule on reporting mercury manufacturing and imports and used this information to issue an initial inventory of mercury, supply, use, and trade in the U.S.
- ✓ Expanded access to chemical information for state, tribal, and local governments, and medical personnel and emergency responders
- ✓ Established policies and procedures allowing EPA to share more chemical information with the public while protecting verified confidential information
- ✓ Released systematic review approach for public comment to guide EPA's selection and review of scientific studies
- ✓ Issued guidance to help stakeholders develop and submit draft risk evaluations to EPA
- ✓ Selected first ten chemicals to undergo risk evaluation and issued documents describing uses to be included in the risk evaluations
- ✓ Established and held first meeting of Science Advisory Committee on Chemicals

EPA #TSCAat3

Wondering where your new chemicals case is in the review process? Check out our new progress tracker.

EPA www.epa.gov

- **CBI:** This year, EPA published and supplemented a proposed rule establishing the plan for the agency's review of manufacturer confidentiality claims and procedures for companies to substantiate those claims. This proposed rule makes transparent how EPA will review CBI claims to ensure that all claims are allowable under the law. The final rule, encompassing both proposals, will be finalized in early 2020. EPA is also increasing the availability of information for stakeholders about all ongoing and completed TSCA CBI claim reviews, and in July began publishing information that shows EPA's progress in meeting the Lautenberg Act's requirements around confidentiality claims.

Methylene Chloride Ban

In March, EPA Administrator Wheeler signed a final rule to remove methylene chloride (MC) from paint and coating removers in the retail consumer marketplace, including e-commerce sales. After November 22, paint removal products containing MC may not be sold at or by any retail or distribution establishments that have consumer sales. EPA is now looking at 72 other MC uses to evaluate and manage any risks associated with those uses.

“EPA's action keeps paint and coating removers that contain the chemical methylene chloride out of consumers' hands. It is against the law to sell or distribute methylene chloride for paint and coating removal in the retail marketplace — a step that will provide important public health protections for consumers,” **said EPA Administrator Andrew Wheeler.**

Asbestos Significant New Use Rule (SNUR)

In April, EPA issued a final rule safeguarding the public against discontinued asbestos products. With

Transparency Initiatives

EPA took a host of actions this year to carry out the Administrator's commitment to increase transparency and public access to critical information about chemicals. Some highlights include our work on:

- **New Chemicals:** In May, EPA rolled out the New Chemical Case Tracker, so that new chemical submitters and the public can learn from EPA's website the status of the review of any new chemical undergoing review. This tool also provides aggregate statistics on new chemicals submissions. EPA also made significant updates to its ChemView database; beginning in May, all new pre-manufacture notices and their non-CBI attachments (including health and safety studies) have been made available to the public within 45 days of receipt.

this rule, EPA ensured that discontinued asbestos products cannot be reintroduced into commerce without EPA review and the opportunity to restrict or prohibit use of the products. This is the first time in thirty years that EPA took action on products that contain asbestos under TSCA. This action is part of a holistic approach that EPA is taking to use all available tools under TSCA to protect the public from asbestos exposure. Of particular note, the agency is reviewing ongoing uses of asbestos as one of the first ten chemicals selected for risk evaluation under amended TSCA.

Administrator Wheeler’s Letter to the Editor in The New York Times: “Before our rule, asbestos products that were no longer on the market could come back without any agency review, without any EPA restrictions, and without any opportunity for the agency to prohibit that use. Our rule closed this dangerous loophole.”

Final Dust-Lead Hazard Standards Rule



In June, EPA issued the Dust-Lead Hazard Standards rule, which set tighter standards for lead in dust on floors and window sills to protect children from the harmful effects of lead exposure. The more protective dust-lead hazard standards took effect on Jan. 6, 2020, and applies to inspections, risk assessments, and abatement activities in pre-1978 housing and certain schools and child care facilities across the country. This important rule followed through on commitments in the Federal Lead Action Plan to take steps to reduce childhood lead exposure and helps property owners, lead paint professionals, and government agencies identify lead hazards in residential paint, dust, and soil.

Prioritizing Efforts to Reduce Animal and Avian Testing

On September 10, 2019, Administrator Wheeler announced a “Directive to Prioritize Efforts to Reduce Animal Testing.” In one of its first steps to implement the September directive, EPA released a draft science policy intended to reduce testing of pesticides on birds when registering conventional outdoor pesticides. Based on a study conducted with PETA of data supporting pesticide registrations since 1998, EPA concluded that for most pesticides it can confidently assess acute risk for birds using one protocol rather than two, thereby saving about 720 birds each year. As described below on pages 37-38, EPA also held a very successful first annual conference on alternatives to animal testing.

Pesticide Actions

In this fiscal year, EPA registered 22 new active ingredients, most of which were classified as reduced-risk pesticides, and over 230 new uses of existing pesticides. These registration decisions provide additional tools to help growers meet their pest management needs.



Assistant Administrator Dunn visits EPA Region 3 to learn about sustainable agriculture practices at Harborview Farms during Earth Week 2019.

EPA also published 85 draft human health or ecological risk assessments, 76 proposed interim decisions, and 79 final/interim decisions in the re-evaluation of existing pesticides, including soil fumigants and antibiotics to control citrus greening. This work supports the agency’s requirement under the Federal Insecticide, Fungicide, and Rodenticide (FIFRA) section 3(g) to review each pesticide

every 15 years, ensuring that currently registered pesticides continue to meet federal safety standards and are available to growers.

In addition, EPA achieved several pesticides “firsts,” including the following:

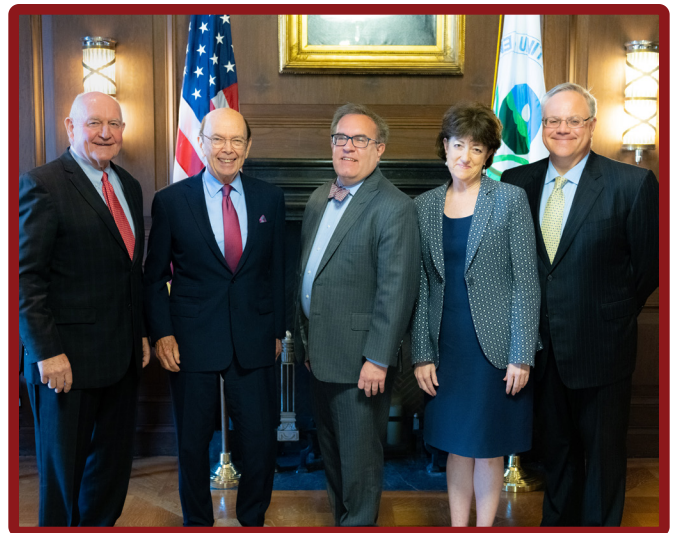
- **Bacteriophage active against *Xylella fastidiosa*:** In April, EPA registered the new active ingredient bacteriophage to fight *Xylella fastidiosa*. Also known as Pierce’s disease, the bacterium threatens the livelihood of U.S. grape growers. The product containing the bacteriophage will be the first pesticide product available to U.S. grape growers, including those growing organic grapes, to directly control Pierce’s disease.
- **New Products to Fight Dangerous Fungal Infections:** EPA registered nine products this year for use against the emerging fungal pathogen *Candida auris* (*C. auris*), which the CDC in November described as an urgent threat. *C. auris* often causes serious and sometimes fatal fungal infections, especially in hospitalized patients. Because it can be resistant to antifungal drugs, healthcare providers eagerly anticipated availability of the products.
- **First Rodenticide in 20 Years:** EPA registered the first new rodenticide in 20 years to control mice inside homes and buildings. Alphachloralose is designed to lower body temperature in mice, eventually putting the mouse to sleep before it dies. The rodenticide is safe to use in homes and buildings because it is not harmful to adults, children, and larger household pets.

Improving the Endangered Species Act Process for Pesticides

EPA also took significant steps this year to improve the Endangered Species Act (ESA) consultation process for pesticide registration and registration review activities. As part of this effort, EPA solicited public comment on a draft method for conducting biological evaluations of the effect of pesticides on threatened or listed endangered species. EPA also launched the new FIFRA-ESA Interagency Working Group established by the 2018 Farm Bill and convened the first Working Group meeting in June 2019. Chaired by Administrator Wheeler,

the first Working Group meeting included U.S. Department of Agriculture Secretary Sonny Perdue, U.S. Department of Commerce Secretary Wilbur L. Ross, Jr., U.S. Department of the Interior Secretary David Bernhardt, and White House Council on Environmental Quality Chairman Mary B. Neumayr.

“The Trump administration is committed to carrying out the important responsibilities of the Endangered Species Act to protect and promote the recovery of species while recognizing that pesticides are a critical tool for protecting public health, supporting our farmers, and ensuring an abundant food supply,” **said EPA Administrator Andrew Wheeler.** “The goal of our Working Group is a streamlined ESA consultation process that is protective of species, timely for pesticide registration review decisions, and transparent to the public.”



Administrator Wheeler hosted Secretary Perdue, Secretary Ross, Chairman Neumayr, and Secretary Bernhardt for a discussion on improving the ESA consultation process for pesticides.

Proposed Updates to Worker Protection Standard

In October, EPA proposed to clarify and simplify the application exclusion zones for outdoor production pesticide applications. The proposed updates to EPA’s Worker Protection Standard would improve enforceability for state regulators and reduce regulatory burdens for farmers. The revision will maintain public health protections for farm workers and other individuals near agricultural establishments that could be exposed to agricultural pesticide applications.

ENFORCEMENT

In 2019, EPA continued to focus on impactful actions that meaningfully increase compliance with environmental laws. As a result of this, in FY 2019 EPA's enforcement and compliance assurance actions resulted in:

- Voluntary disclosure and certified correction of violations at over 1900 facilities in FY 2019, an estimated 20 percent increase compared to FY 2018.
- Investment of over \$4.4 billion in actions and equipment that achieve compliance with the law and control pollution, an increase of over \$400 million from FY 2018.
- \$471.8 million in combined Federal administrative and judicial civil penalties and criminal fines, the highest total of all but four of the past ten years.
- Commitments to reduce, treat, or eliminate 347.2 million pounds of pollution (air, toxics, and water), the highest value in the past four years.
- 7.56 million pounds of emissions prevented from mobile sources, an increase of nearly 6.9 million pounds from FY 2018.
- 170 criminal cases opened, an increase from 128 in FY 2018, continuing to reverse the downward trend that began after 2011.
- A total of 137 criminal defendants charged, an increase from 107 in FY 2018, reversing a downward trend that began after 2013.
- Commitments for \$570.4 million on new site cleanup work, \$283 million in reimbursement of EPA's costs, and more than \$108 million in oversight billed, totaling \$961 million, an increase of over \$349 million from FY 2018.
- Cleanups and redevelopment at over 160 sites through use of Superfund enforcement tools, an increase of six sites from 2018.

Priorities

Looking ahead, EPA announced seven enforcement and compliance assurance priority areas for fiscal years 2020-2023. Those initiatives are:

- Creating Cleaner Air for Communities by Reducing Excess Emissions of Harmful Pollutants

- Stopping Aftermarket Defeat Devices for Vehicles and Engines
- Reducing Hazardous Air Emissions from Hazardous Waste Facilities
- Reducing Risks of Accidental Releases at Industrial and Chemical Facilities
- Reducing Significant Non-Compliance with National Pollutant Discharge Elimination System (NPDES) Permits
- Reducing Non-Compliance with Drinking Water Standards at Community Water Systems

These NCIs advance the agency's objectives to improve air quality, provide for clean and safe water, ensure chemical safety, and improve compliance with our nation's environmental laws while enhancing shared accountability between EPA and states and tribes with authorized environmental programs.

For the seventh priority area, OECA will contribute to the agency's implementation of the Lead Action Plan, which was issued by the President's Task Force on Environmental Health Risks and Safety Risks to Children in December 2018.

Partnership Policy

EPA aims to enhance its partnerships with state, local, and tribal co-regulators by more effectively carrying out our shared responsibilities under environmental laws. The partnership policy, signed July 11, 2019, sets out expectations and procedures for enhancing effective partnerships in civil enforcement and compliance assurance work between EPA and states that are authorized, delegated, or approved to implement federal environmental programs.

"The policy reflects the dialogue we have had with our state partners on enhancing our work together," **said EPA Office of Enforcement and Compliance Assurance Assistant Administrator Susan Bodine.** "The final policy clarifies roles and provides a clear roadmap that EPA and our state partners can use to more effectively achieve our shared

goal of increasing compliance with environmental regulations.”

“The Environmental Council of the States (ECOS) committed to this partnership with EPA to drive improvements in effective and efficient enforcement and compliance assurance outcomes. We look forward to better realization of shared goals for future environmental progress,” **said ECOS President and Arkansas Department of Energy and Environment Secretary Becky Keogh.** “We look forward to better realization of shared goals for future environmental progress.”

Self-Disclosed Violation Policies

In 2019, OECA continued to see an increase of entities, including new owners, utilizing its self-disclosed violation policies that encourage regulated entities to voluntarily discover, disclose, and correct violations of federal environmental laws and regulations.

Specifically, in FY 2019, 635 entities with over 1900 facilities voluntarily disclosed violations pursuant to self-disclosure policies, expediting return to compliance, an estimated 20 percent increase compared to FY 2018.

EPA launched a self-audit incentive program designed to encourage owners of upstream oil and natural gas exploration and production facilities to identify, correct, and disclose Clean Air Act violations. EPA finalized those incentives for new owners in March 2019 and extended them to current owners in December 2019.

Superfund Enforcement

Fox River Superfund Site Settlement

- In March, a settlement concluded 20 years of successful enforcement work to hold responsible parties accountable and allow for the removal and containment of much of the PCB-contaminated sediment from the Lower Fox River and Green Bay Superfund site in Wisconsin by dredging and specially-engineered caps. This settlement has greatly reduced the risks to humans and wildlife posed by PCB exposure and contaminated sediments in the Lower Fox River and Green Bay. In the settlement P.H. Glatfelter Company will pay

\$20.5 million to reimburse past EPA costs to clean up PCBs in river sediment and natural resources damages in addition to reimbursing all future government costs of overseeing one of the nation’s largest Superfund cleanup projects at Wisconsin’s Lower Fox River and Green Bay site. This settlement ends all Superfund litigation at the site.

Koppers

- EPA helped leverage the resources of a developer to implement a \$30 million remedy change supporting residential land use that will help facilitate additional cleanup and redevelopment, and spur redevelopment in the area of the Koppers Co., Inc. (Charleston Plant) Superfund site in South Carolina. In March, EPA and DOJ finalized a prospective purchaser agreement (PPA) with Highland Resources, Inc. to implement the remedy change. The site has sat idle after the bankruptcy of the previous developers. Additionally, the cleanup work associated with the PPA may lead to delisting the majority of the site from the National Priorities List.

Nuclear Metals Superfund Site Settlement

- In October, four parties responsible for contamination at the Nuclear Metals Superfund site in Concord, Massachusetts, agreed to clean up the site at an estimated cost of approximately \$125 million. “This settlement allows EPA to move forward on the much-needed cleanup of contaminated groundwater, soil, and sediment at this site,” **said EPA Office of Enforcement and Compliance Assurance Assistant Administrator Susan Bodine.** “It’s a good example of EPA’s cleanup enforcement program bringing potentially responsible federal and private parties together to achieve clean up at contaminated sites.”

Kalamazoo River Superfund Site Settlement

- In December, EPA announced a proposed consent decree that would require NCR Corp. to clean up and fund future response actions at a significant portion of the Allied Paper Inc./ Portage Creek/Kalamazoo River Superfund site, including expending approximately \$135.7 million for cleanup work, and paying \$76.5

million to EPA for its past and future costs.

Civil and Criminal Cases

In FY 2019, EPA's civil enforcement cases increased the investment by companies in actions and equipment to control pollution thereby achieving compliance with federal environmental laws and increased the amount of annual penalties assessed, which deter non-compliance. The agency also continued to expand participation in its self-audit programs. Significant accomplishments include the following cases.

Fiat Chrysler Automobiles (FCA) Settlement

- In January, EPA, DOJ, and California announced a settlement of allegations that FCA had violated the Clean Air Act and California law. As a result, FCA is paying penalties totaling \$305 million and will spend up to \$185 million for vehicle recall and mitigation programs. The recall will install updated vehicle software that meets EPA and California emission standards and the mitigation program will improve the effectiveness of 200,000 aftermarket catalytic converters sold for use on light-duty vehicles by July 1, 2020.
- The settlement resolves claims relating to the sale of over 100,000 EcoDiesel Ram 1500 and Jeep Grand Cherokee vehicles (Model Years 2014-2016) equipped with software designed to "cheat" inspection tests, resulting in higher emissions when driven on the road.

NYC Hillview Reservoir Consent Decree

- In March, EPA and DOJ secured a consent decree in the U.S. District Court for the Eastern District of New York that requires the City of New York and New York City Department of Environmental Protection to address their longstanding failure to cover the Hillview Reservoir located in Yonkers, New York.
- Under the consent decree, New York will make improvements and cover the Reservoir at an estimated cost of \$2.975 billion and pay a \$1 million civil penalty.
- The NYC Hillview Reservoir is part of New York City's public water system, which delivers up to a billion gallons of water a day. Since the Reservoir is an open storage facility, the treated water in the Reservoir is subject to recontamination with

microbial pathogens from birds, animals, and other sources, such as viruses, Giardia, and Cryptosporidium.

Hyundai Construction Equipment Americas Inc.

- In September, Hyundai Construction Equipment Americas Inc. (HCEA) and Hyundai Heavy Industries Inc. Co. Ltd. agreed to pay a \$47 million civil penalty to resolve allegations that Hyundai sold heavy construction vehicles with diesel engines that were not certified to applicable emission standards. In November 2018, HCEA pleaded guilty to criminal violations of the Clean Air Act relating to the same actions.

EPA's criminal enforcement program continued to reverse the decline that began after 2011, increasing the number of new criminal cases opened, the number of defendants charged, and the total amount of criminal fines assessed. Significant criminal cases include the following:

IAV GmbH

- In May, IAV GmbH (IAV), a German company that engineers and designs automotive systems, was sentenced to pay a \$35 million criminal penalty in the U.S. District Court for the Eastern District of Michigan.
- The penalty is the result of the company's guilty plea for its role in the long-running scheme for Volkswagen AG to sell approximately 335,000 diesel vehicles in the United States by using a defeat device to cheat on mandated U.S. emissions tests.
- IAV admitted that it and its co-conspirators knew the vehicles did not meet U.S. emissions standards and worked collaboratively to design, test, and implement cheating software.

M/T Ocean Princess

- In August, the Greek companies that own the Motor Tanker "Ocean Princess" and its senior officers were convicted of criminal violations of the Clean Air Act by using fuel in the U.S. Emission Control Area that did not meet applicable sulfur standards, and of falsifying records to hide the violations.
- The prosecution resulted in a sentence of \$3,000,000 in criminal fines, four years of probation for the companies, and three years of probation for each of the ship officers involved.

ENVIRONMENTAL JUSTICE & OPPORTUNITY ZONES

In 2019, EPA provided grants, technical assistance, tools, and training to help communities ensure that new investment brings environmental and public health benefits, in addition to economic revitalization. EPA expanded its ongoing efforts by prioritizing those communities located in Opportunity Zones, a designation created through the Tax Cuts and Jobs Act of 2017.

EPA Administrator Andrew Wheeler participated in the first White House Opportunity and Revitalization Council, which was created by Executive Order 13853, to better coordinate federal economic development resources in Opportunity Zones and other distressed communities. In 2019:

1. EPA provided \$64.6 million to 151 communities with Brownfields grants, which will provide communities with funding to assess, clean up, and redevelop underutilized properties. 108 of those communities – over 70 percent – had identified sites or targeted areas within Opportunity Zones. In June, Scott Turner, Executive Director of the White House Opportunity and Revitalization Council, accompanied Administrator Andrew Wheeler to Dauphin County, Penn., to announce the grant award.
2. EPA provided 26 organizations with a total of \$5.1 million in grants for environmental job training programs across the country, all of which will serve communities located in Opportunity Zones.
3. EPA awarded \$1.5 million in grants to 50 organizations working to address environmental justice challenges in their communities, with more than half going to support communities located in Opportunity Zones.

4. EPA provided technical assistance to over 30 communities to help revitalize their downtown areas and increase access to locally grown food through the Local Foods, Local Places program. Over 70 percent of those communities are in Opportunity Zones.
5. In October, EPA launched a new technical assistance program (in collaboration with U.S. Department of Agriculture – Forest Service and Northern Border Regional Commission) to help communities capitalize on recreation economy assets as a driver to revitalize downtown areas and improve environmental outcomes, in support of Executive Order 13790 (Promoting Agriculture and Rural Prosperity in America). Half of the communities selected to receive support are adjacent to or located in Opportunity Zones.

“Under the Trump administration, at EPA, we remain committed to ensuring that environmental justice is integrated into EPA’s programs and activities to strengthen environmental and public health protections for low-income, minority, indigenous, and disadvantaged communities that are more likely to live near contaminated lands or be disproportionately impacted by environmental hazards,” **said EPA Administrator Andrew Wheeler.**

EPA’s Office of Environmental Justice (EJ) continued to make progress toward improving environmental and public health conditions for low-income, minority, indigenous, and disadvantaged communities that are more likely to live near contaminated lands or be disproportionately impacted by environmental hazards.

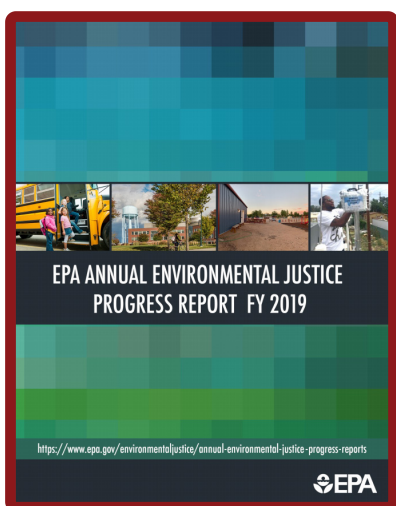
In March, EPA announced training to build the capacity of states to integrate environmental justice into their decision-making process. Over the year, EPA conducted a national webinar series developed

in collaboration with state partners.

“South Carolina is proud to serve as a collaborative partner with the EPA as they unveil a new environmental justice training initiative for states. We are pleased the EPA is taking this important step to increase understanding of tools and resources that can be applied to address the needs of environmental justice communities,” **said South Carolina Department of Health and Environmental Control Director of Environmental Affairs Myra Reece.**

The five national training webinars served as an ongoing resource for state staff and others interested in developing their environmental justice knowledge and expertise. Topics included identifying and prioritizing environmentally-impacted and vulnerable communities, enhancing community involvement in the regulatory process, using an area-wide planning approach to promote equitable development, and application of environmental justice to state environmental impact assessments. To complement the online trainings, EPA Regions conducted training on environmental justice for their respective states.

In November, EPA released the FY 2019 Annual Environmental Justice Progress Report highlighting agency efforts and accomplishments to assist vulnerable and overburdened communities.



Highlights:

- Awarded approximately \$50 million in funding for Diesel Emission Reduction Act projects with priority given to projects that engage and

benefit local communities and applicants that demonstrated their ability to promote and continue efforts to reduce emissions after the project has ended in communities or populations that have faced or are facing EJ concerns. Awarded \$29.4 million in targeted airshed grants that will reduce environmental and public health impacts in several communities throughout the U.S.

- Provided technical assistance to communities affected by Superfund sites so that they could meaningfully contribute to the cleanup process, including 43 communities that received Technical Assistance Grants (TAGs) and 37 communities that received support through the Technical Assistance Services for Communities (TASC) Program.
- Collaborated with state partners to develop online trainings on approaches to integrate EJ in state policies and programs, reaching over 4,000 people representing government agencies in all fifty states, Puerto Rico, Guam and the District of Columbia.
- Selected 2020-2023 National Compliance Initiatives that prioritize impacts on vulnerable communities and will consider EJ issues throughout this work. Performed 868 EJ screenings in enforcement work, which assures that EPA enforcement personnel working on a case are aware of the potential EJ concerns in a community.
- Trained and/or engaged with approximately 12,350 community residents, conducted approximately 300 workshops and community forum activities that addressed local environmental and public health issues, and developed approximately 50 new partnerships between EJ grantees and local stakeholders. This resulted in forty-four underserved communities that felt the meaningful impacts of EJ funding received over the last two years. Twenty-nine of the communities were in predominantly rural states, with over 90% of the grantee organizations receiving their first EJ grant this decade.

INTERNATIONAL & TRIBAL AFFAIRS

G7 & G20 Environment Ministers Meetings

EPA Administrator Andrew Wheeler represented the United States at the G7 and G20 Environment Ministers Meetings in Metz, France and Karuizawa, Japan respectively. At these meetings discussion included a wide range of international environment topics such as marine litter, air quality, biodiversity, and waste management. At the first-ever G20 Environment Ministers Meeting, countries adopted the G20 Implementation Framework for Actions on Marine Plastic Litter and the G20 Action Agenda on Adaption and Resilient Infrastructure.



Environment Ministers from each G7 country pose for a photo together.

In France, Administrator Wheeler began by meeting with Canadian Minister for the Environment and Climate Change Catherine McKenna where they focused on ways the U.S. and Canada can work together on conservation and cleanup efforts for the Great Lakes region. Administrator Wheeler reached out to the new Minister Jonathan Wilkinson to continue to highlight the importance of the preservation of the Great Lakes and are looking for ways to partner with private sector stakeholders to ensure we keep our waters clean.

In addition to the general sessions at the G20, Administrator Wheeler had productive meetings

with his counterparts on marine litter, waste management, water infrastructure, and access to clean drinking water. He met with ministers from Japan, South Korea, Brazil, and Thailand, and the Deputy Ministers from China, Saudi Arabia, and Vietnam. Six Asian nations are the largest contributors to marine litter. In the bilateral meetings with Japan and South Korea, he discussed working together to assist other Asian nations with reducing their contributions to marine debris.

“I want to thank Japanese Minister Yoshiaki Harada for bringing together our international partners for this historic, first-ever G20 environment ministers meeting,” **said EPA Administrator Andrew Wheeler.** “The United States will continue to work with our G20 members to combat marine litter, improve water quality, and reduce air pollution while promoting innovation and economic prosperity.”

United States-Mexico-Canada Agreement (USMCA)

Under the leadership of President Trump, we have reached agreement on the USMCA. Under this agreement, the U.S., Canada, and Mexico have agreed to the most advanced, highest standard environment chapter of any trade agreement to date. As a key achievement of the negotiations, the environment chapter includes first time provisions to address pressing environmental issues such as air quality and marine litter.

Israel

To advance the Memorandum of Understanding on environmental cooperation between Israel and the U.S., which was signed in October 2018, EPA Administrator Andrew Wheeler led an EPA delegation to Israel in November. While in Israel the Administrator Andrew Wheeler and the Israeli Minister of Environmental Protection Ze’ev Elkin announced their commitment to enhanced work in two areas:

1. **Contaminated Sites Cleanup:** EPA has been working with the Israeli Ministry of Environmental Protection to find technical approaches, including those using new and innovative technologies, and including a Study Tour to the U.S. in October 2019 to address the cleanup and redevelopment of contaminated former military sites.
2. **Water Reuse Collaboration:** EPA recently released a Water Reuse Action Plan and held a joint panel on Water Reuse with Israel at the Water Environment Foundation Technical Exhibition and Conference in September 2019. Israel recycles more than 85 percent of its water. EPA hopes to learn much from Israel's best practices and approaches to help meet water scarcity challenges.



Administrator Wheeler meets with U.S. Ambassador to Israel David Friedman at the U.S. Embassy in Jerusalem.

Preventing Marine Litter in Panama

EPA signed a new interagency agreement with U.S. Department of State that supports the agency's solid waste management capacity building work and provides continuity to the marine litter program in Panama – Trash Free Waters – initiated in 2018. In 2020, EPA will conduct a facilitated national dialogue on solid waste and marine litter nexus and how stakeholders could collaborate to ensure that initiatives on both areas are better coordinated and complementary of each other.

Reenergized Tribal Engagement

Administrator Wheeler co-chaired the National Tribal Operations Committee (NTOC) with Gerald Wagner, Acting Chair of the National Tribal Caucus in April, marking the 25th anniversary of the NTOC, and

an important milestone for high-level discussions between EPA leadership and tribal representatives from across the country. Discussions during the meeting included WOTUS, tribal considerations for state-delegated programs, lead management in Indian Country, and EPA's efforts to improve environmental program processes.

At the NTOC, Administrator Wheeler re-affirmed EPA's Policy for the Administration of Environmental Programs on Indian Reservations (1984), which is a tradition that all EPA administrators have continued since the original policy was enacted as the cornerstone for EPA's tribal program. This policy identifies opportunities for engaging and consulting with tribes.

“For 25 years, the NTOC has played a critical role in advancing EPA's partnership with tribes to strengthen public health and environmental protections in Indian Country,” **said EPA Administrator Andrew Wheeler.** “Today, I was honored to reaffirm that the 1984 Indian Policy is, and will remain, the foundation of EPA's tribal program.”

EPA consults with tribes on a wide-range of activities including: rules, permits, policies, and other decisions that may affect tribal interests. And this year – in July specifically – EPA completed its 500th tribal consultation under the EPA Policy on Consultation and Coordination with Indian Tribes.

In August, EPA welcomed W. Scott Mason IV, a proud citizen of the Cherokee Nation and fifth generation western Oklahoman, as the new director for the American Indian Environmental Office. Scott participated in this year's 9th annual Tribal Lands and Environment Forum, and has met with tribal leaders at six Regional Tribal Operations Committee meetings, in addition to several tribal visits.

This year EPA took a different approach with the Multipurpose Grant Program. This new approach resulted in over \$3 million made available to tribes and consultation conducted by the American Indian Environmental Office which expanded the number of eligible tribes and the availability of new grant guidance.

RESEARCH & DEVELOPMENT

The primary focus of EPA's Office of Research and Development (ORD) is to provide the strong scientific and technical foundation the agency relies on to fulfill its statutory obligations and help agency, state, and other customers address their most pressing environmental and related public health challenges. ORD's work is organized into six research programs (Air and Energy, Chemical Safety for Sustainability, Homeland Security, Health and Environmental Risk Assessment, Safe and Sustainable Water Resources, and Sustainable and Healthy Communities) that identify environmental health research priorities based on input from agency programs and regions, states, and tribes.

Each ORD National Research Program is guided by a Strategic Research Action Plan (StRAP), a blueprint to structure and coordinate research activities. To develop each StRAP, ORD leaders and staff engage agency program offices as well as state and tribal customers in open communications to identify the environmental and public health challenges they face. Then, StRAP-development-teams carefully align research and technical activities to ensure ORD delivers the specific research products, models, tools, and other outputs required to meet those challenges. In 2019, ORD completed the StRAP development process for FY19 – FY22.

Integrated Science Assessments

EPA is committed to developing scientifically robust Integrated Science Assessments in a timely, efficient, and transparent manner.

- Announced on October 23, 2018, the draft Integrated Science Assessment (ISA) for Particulate Matter (PM) document is a concise synthesis and evaluation of the most policy-relevant science, and has been prepared as part of the review of the primary (health-based) and secondary (welfare-based) National Ambient Air Quality Standards (NAAQS) for PM under the Clean Air Act. When final, the PM ISA, in conjunction with additional technical and policy assessments, will provide the basis for

EPA's decision on whether the current primary and secondary air quality standards for PM sufficiently protect public health and welfare.

- Announced on September 29, 2019, the draft Integrated Science Assessment for Ozone and Related Photochemical Oxidants document is a concise synthesis and evaluation of the most policy-relevant science, and has been prepared as part of the review of the primary (health-based) and secondary (welfare-based) NAAQS for Ozone under the Clean Air Act. When final, the Ozone ISA, in conjunction with additional technical and policy assessments, will provide the basis for EPA's decision on whether the current primary and secondary air quality standards for Ozone sufficiently protect public health and welfare.



Spotlight: Integrated Risk Information System (IRIS)

EPA's IRIS Program supports EPA's mission by identifying and characterizing the health hazards of chemicals found in the environment.

- 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 October 2019, EPA released the draft *IRIS Assessment Plan (IAP) for Inorganic Mercury Salts* for public comment.
- In May 2019, EPA released the document *Updated Problem Formulation and Systematic Review Protocol for the Inorganic Arsenic IRIS Assessment* for public comment.
- In April 2019, EPA released the draft *IRIS Assessment Plan (IAP) for Methylmercury* for public comment.
- In March 2019, EPA released the draft document *Systematic Review Protocol for the Hexavalent Chromium IRIS Assessment (Preliminary Assessment Materials)* for public comment.

Animal Testing Alternatives

In September, EPA Administrator Andrew Wheeler signed a directive to prioritize EPA efforts to reduce animal testing including reducing mammal study requests and funding by 30 percent by 2025 and eliminating them by 2035.



Administrator Wheeler signs memo to reduce animal testing alongside representatives from PETA, the Humane Society Legislative Fund, White Coat Waste Project, and Physicians Committee for Responsible Medicine.

“The challenges that we face will not have easy solutions. But I’m optimistic we have the power, the talent and insight and the creativity to determine the best use of New Approach Methods (NAMs) for chemical safety testing,” **said EPA Administrator Andrew Wheeler.** “We can and will eliminate animal testing and we will do so while maintaining the rigorous scientific standards to protect human health and the environment that EPA has been known for the last 49 years. This is the beginning of EPA for the next 50 years.”

“White Coat Waste Project and its over 2 million supporters applaud Administrator Wheeler and the Environmental Protection Agency (EPA) for unveiling the most comprehensive and aggressive plan in U.S. history to cut wasteful animal testing, a move supported by a supermajority of Americans from all parties,” **said Anthony Bellotti, president and founder of 2-million-member taxpayer watchdog White Coat Waste Project.** “The Trump administration has shown outstanding leadership to curb unnecessary taxpayer-funded animal tests and this development at the EPA is another remarkable win for animals, taxpayers, industry and the environment.”

“Under Administrator Wheeler’s leadership, EPA continues to forge a pathway to end decades of reliance on conventional animal tests as predictors of risk to humans and our environment. By setting bold goals for EPA-related testing, the agency can help drive science forward - creating a more humane and predictive paradigm for chemical safety assessments,” **said Sara Amundson, president of the Humane Society Legislative Fund.** “We ask the Congress, the regulated industry and other key stakeholders to join together in support of this key initiative.”

“PETA is celebrating the EPA’s decision to protect animals certainly – but also humans and the environment – by switching from cruel and scientifically flawed animal tests in favor of modern, non-animal testing methods,” **said Dr. Amy Clippinger, director of PETA’s Regulatory Testing Department.** “PETA will be helping regulatory agencies and companies switch to efficient and effective, non-animal testing approaches and working toward a day when all animal tests are only found in history books.”

“Physicians Committee members have supported the replacement of toxicity tests on animals for many years,” **said Kristie Sullivan, MPH, vice president for research policy at Physicians Committee for Responsible Medicine.** “We have been pleased to see the progress EPA has made to adopt newer and better test methods, and we are excited to witness the agency making a commitment to move more fully towards nonanimal tests that will better protect human health and the environment.”

At the same time, Administrator Wheeler announced \$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. ORD and OCSPP are the lead offices in charge of implementing the Administrator’s Directive as the agency focuses on alternatives for toxicity testing of pesticides and other chemicals.

In December, EPA hosted its first annual conference on the State of the Science on Development and Use of NAMs for Chemical Safety Testing. The purpose of this one-day conference, which attracted

more than 600 participants from around the world, was to exchange information about advances in the NAMs field, including ways to develop confidence in NAMs and characterize uncertainties. This event, which will take place annually, is a major step in implementing the vision Administrator Wheeler outlined for EPA to aggressively pursue reductions in animal testing.

Administrator Wheeler emphasized the importance of developing new technologies, methodologies, and approaches to achieve two important and entirely compatible goals: providing information on chemical hazard and potential human exposure while avoiding or significantly reducing the use of testing on animals.

“This is a matter of sincere importance to me,” said **EPA Administrator Andrew Wheeler.** “Scientific advancements exist today that allow us to better predict potential risks without the use of traditional methods that rely on animal testing. With NAMs, we are able to evaluate more chemicals across a broader range of potential biological effects, in a shorter time frame with fewer resources, while striving for equal or greater results.”

Over the past several years, EPA has made significant progress toward reducing, replacing, and refining animal testing requirements. EPA’s efforts to date have saved more than 200,000 laboratory animals and reduced costs to the pesticide industry by more than \$300 million while maintaining public confidence in EPA’s scientific conclusions. EPA’s use of mammals in internal research has decreased by 50 percent over the past three years.

Wildfire Smoke Guidance

EPA ORD has worked hand-in-hand with states and tribes to provide evidence-based information to protect human health from exposure to wildfire smoke. Under our Memorandum of Agreement with ECOS and the Association of State and Territorial Health Officials, ORD worked with partners (including the U.S. Forest Service, U.S. Centers for Disease Control and Prevention, and State of California) to update the *Wildfire Smoke: A Guide for Public Health Officials* in August 2019. The Guide provides public health officials with the information they need to prepare for smoke events and, when

wildfire smoke is present, to communicate health risks and take measures to protect public health.

CyAN Mobile App



The EPA Cyanobacteria Assessment Network (CyAN) mobile application identifies harmful algal blooms in more than 2,000 U.S. lakes and reservoirs. In partnership with the National Aeronautics Space Administration, the National Oceanic and Atmospheric Administration, and the U.S. Geological Survey, EPA has been working 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 this easy to use, customizable interface, users can rapidly distill critical water quality information for their communities.



Technology Challenges

EPA uses competitive technology challenges to help address EPA’s environmental priorities. EPA has launched nearly 40 challenges that have resulted in the development and use of innovative solutions and strategies with measurable results.

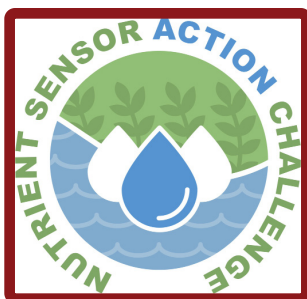
Challenges that were launched or completed in

2019 include:

1. See a Bloom, Give It Room High School Video Challenge: High school students from states and tribes located in Region 7 and 8 have been challenged to create videos that promote public awareness of harmful algal blooms through creative filmmaking. Awareness prevents unnecessary human and animal exposures to potentially toxic algal blooms and encourages actions to minimize or prevent future blooms. In addition to cash prizes, winning videos will be posted on the EPA webpage and announced in February 2020, during the EPA Harmful Algal Blooms Workshop in Kansas.



2. Advanced Septic System Nitrogen Sensor Challenge: With extensive state and local partner participation, the challenge incentivizes innovation, cost reductions and a sustainable market for low-cost sensors capable of monitoring nitrogen concentration in home wastewater treatment systems (septic systems).
3. Nutrient Sensor Action Challenge: In August 2019, three winning teams demonstrated how data from low-cost water quality monitoring sensors can be used to inform local-scale nutrient management decisions.



Nutrient Sensor Challenge Winning Teams

- “Direct Data for Farm Nutrient Management” by the League of Women Voters of Illinois (Jo Daviess County, Ill.): The team demonstrated how an edge-of-field sensor system could support farmers in reducing nitrogen loss from their fields. The installed sensors provide real-time nitrate data to inform management decisions at the farm-scale.
- “In-Plant Sensors for Nutrient Management” by the South Platte Water Renewal Partners (Englewood, Colo.): This facility is using sensor data to optimize wastewater treatment to meet more stringent nitrogen standards and improve watershed health.
- “Impact of Dam Removals on Nitrate Retention” by the University of New Hampshire (Durham, N.H.): The team deployed low-cost sensors to assess amount and timing of nitrate loading associated with dams.

4. Campus Rainworks Challenge: This annual challenge recognizes university students that create innovative designs for green infrastructure projects on campus. On April 23, 2019, EPA announced the winners and honorable mentions for the challenge:

First Place:

Master Plan Category: University of Louisiana at Lafayette

Demonstration Project Category: University of Oregon

Second Place:

Master Plan Category: Florida International University

Demonstration Project Category: University of Arizona

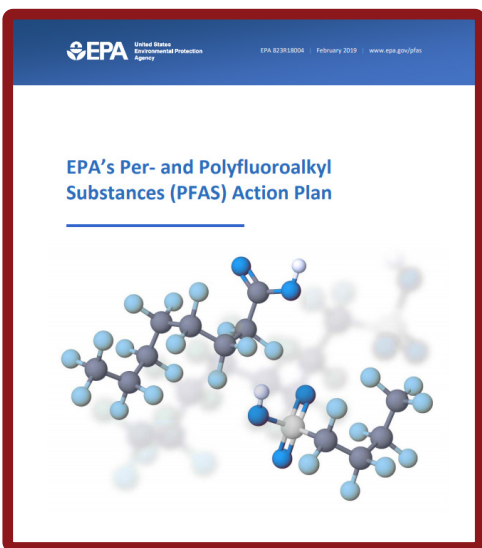
Additional challenges to help address agency priorities are under development. New challenges include efforts to address enhanced efficiency fertilizers, food waste, risk communication, and ocean plastics.

PFAS

Aggressively addressing PFAS is an active and ongoing priority for the agency. 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 which can contribute to their persistence in the environment.

In February, the agency released the PFAS Action Plan. It is the first multi-media, multi-program, national research, management, and risk communication plan to address an emerging contaminant of concern like PFAS. The plan responds to the extensive public input the agency received during the PFAS National Leadership Summit, community engagement events, and through the public docket. The PFAS Action Plan outlines the tools EPA is developing to assist states, tribes, and communities in addressing PFAS.

“For the first time in agency history, we utilized all of our program offices to construct an all-encompassing plan to help states and local communities address PFAS and protect our nation’s drinking water,” **said EPA Administrator Andrew Wheeler.**



The Action Plan describes long- and short-term actions under the following areas: drinking water,

clean up, enforcement, monitoring, research, and risk communication.

Together, these efforts will help EPA and its partners identify and better understand PFAS contaminants, clean up current PFAS contamination, prevent future contamination, and effectively communicate risk with the public. To implement the PFAS Action Plan, EPA will continue to work in close coordination with multiple entities, including other federal agencies, states, tribes, local governments, water utilities, industry, and the public. Here are some highlights:

Drinking Water

- In the Summer, EPA initiated stakeholder engagement in preparation for the 2020 proposal of nationwide drinking water monitoring for certain PFAS chemicals under the next Unregulated Contaminant Monitoring Rule monitoring cycle.
- In December, EPA sent the proposed regulatory determination under the Safe Drinking Water Act for PFOA and PFOS in drinking water to the Office of Management and Budget for interagency review. The action will provide proposed determinations for at least five contaminants listed on the fourth Contaminant Candidate List, including PFOA and PFOS, in compliance with Safe Drinking Water Act requirements. Once interagency review is complete, the proposal will be issued for public comment. The agency is also gathering and evaluating information to determine if regulation is appropriate for other chemicals in the PFAS family.
- Also in December, EPA validated a new test method to identify additional PFAS compounds in drinking water. To date, EPA has established validated testing methods to identify 29 PFAS compounds in drinking water and provided this information to states and local public health agencies.

Cleanup

- EPA is currently providing cleanup assistance to more than 30 states and the District of Columbia to address PFAS contamination.
- In addition to ongoing cleanup assistance, EPA issued Interim Recommendations for Addressing Groundwater Contaminated with PFOA and PFOS under federal cleanup programs in December. This guidance helps states, tribes, and other federal partners by setting a “preliminary remediation goal” of 70 ppt for PFOA and PFOS when those substances are found in groundwater that is a current or potential source of drinking water at certain sites.

“Today, we are delivering on one of our most important commitments under the PFAS Action Plan,” **said EPA Administrator Andrew Wheeler.** “The interim recommendations will provide clear and consistent guidance for federal cleanup programs and will help protect drinking water resources in communities across the country. This is a critical tool for our state, tribal, and local partners to use to protect public health and address these chemicals.”

- EPA has also initiated the regulatory development process for listing certain PFAS as hazardous substances and expects to issue a Notice of Proposed Rulemaking in the coming months.

Developing Health and Toxicological Information about PFAS

- In the new year, EPA expects to finalize two toxicity assessments (GenX and PFBS), and release five draft toxicity assessments for public comment (PFDA, PFBA, PFHxA, PFNA, and PFHxS).

Building an Accurate Inventory of PFAS Contamination and Uses in Commerce

- In November, EPA also released an Advanced Notice of Proposed Rulemaking to add PFAS to the Toxics Release Inventory (TRI), which would ensure that industrial and federal facilities report information about PFAS releases publicly.

“I started at the agency as a career employee

in the TRI program and exploring the addition of certain PFAS chemicals to the TRI is an important step that can enhance this tool and provide important information to the public on these chemicals for the first time,” **said EPA Administrator Andrew Wheeler.**

- Many large industrial users of PFAS have moved away from PFOA and PFOS, but may be using newer PFAS chemicals. To address this, EPA developed a proposed Significant New Use Rule (SNUR) for long-chain PFAS chemicals, which EPA expects to release for public comment in early 2020. A SNUR would ensure EPA is notified before any new manufacture, use, or importation of long-chain PFAS chemicals occurs in the U.S.

Research, Grants & Awards

EPA published an efficacy study of home point-of-use drinking water treatment for PFAS, and developed new targeted and non-targeted air sampling methods in support of multiple stack emission/deposition requests from states.

In May, EPA awarded approximately \$3.9 million through two grants for research that improves understanding of human and ecological exposure to PFAS in the environment. The research will also promote a greater awareness of how to restore water quality in PFAS-impacted communities.

- Colorado School of Mines, Golden, Colorado will research the fate, transport, bioaccumulation, and exposure of a diverse suite of PFAS in nationally representative PFAS impacted communities.
- Oregon State University, Corvallis, Oregon will study the toxicity of a large collection of PFAS and PFAS mixtures with the zebrafish assay and mice studies to identify toxic PFAS that require prioritization for risk management.

In September, EPA also awarded nearly \$6 million to eight recipients to fund research to expand the understanding of the environmental risks posed by PFAS in waste streams and identify practical approaches to manage the potential impacts as PFAS enters the environment.

- New York State Department of Health - Health Research Inc., Menands, N.Y. – to build a dataset by analyzing samples from approximately 150 landfills in the State of New York. This data will be used to understand the types and concentrations of PFAS that are found in and around landfills, as well as the key landfill attributes that contribute to the release of PFAS.
- North Carolina State University, Raleigh, N.C. – to collect landfill gas (LFG) samples from over 400 landfills across the U.S. to determine if PFAS from LFG is a significant source of PFAS released into the atmosphere.
- University of Florida, Gainesville, Fla. – to study the role of waste type, management strategies, and treatment methods on the occurrence, source and fate of PFAS in landfills. The study will identify the sources of PFAS compounds in the current domestic waste stream using laboratory-scale batch leaching and landfill simulation studies.
- Clemson University, Clemson, S.C. – to examine the chemical process for the destruction of PFAS in leachate and groundwater. This project will assess degradation kinetics, test hypothesized process modifications, and conduct trials of leachate treatment.
- Purdue University, West Lafayette, Ind. – to develop methods to decrease PFAS concentrations in both municipal wastewater treatment plant effluent and sludge. The study will determine the technical and economic feasibility of using a treatment approach consisting of nanofiltration followed by electrochemical oxidation.
- Texas A&M AgriLife Research, College Station, Texas – to investigate the feasibility of electron beam technology for the destruction of PFAS compounds during the remediation of groundwater, wastewater, sewage sludges, and soils.
- Texas Tech University, Lubbock, Texas – to identify and quantify the occurrence of PFAS in landfill leachate, investigate the fate of PFAS passing through typical landfill liner systems, and test the ability to break down PFAS in landfill leachate using soundwaves.
- University of North Dakota, Grand Forks, N.D. – to develop practical strategies for removing

legacy and emerging PFAS from leachate and groundwater by studying the adsorption, desorption, and biodegradation of PFAS and precursor compounds in landfills.

In November, EPA announced the availability of nearly \$5 million for new research on PFAS in agriculture. In a February 2019 memorandum, EPA Administrator Andrew Wheeler called for the agency to prioritize new federal research that will help farmers, ranchers, and rural communities by generating new scientifically-driven information on PFAS, potential PFAS impacts in agricultural settings, and actions people can take to address PFAS in their communities.

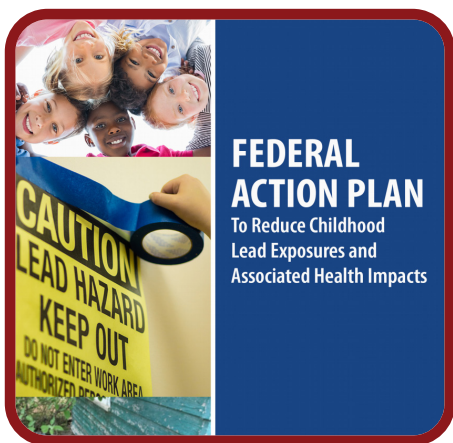
- “While our scientific understanding of PFAS continues to develop, the people of New Mexico, especially farmers and ranchers, already know how it can affect the water resources that are so critical to the state’s environmental and economic wellbeing,” **said EPA Region Administrator 6 Ken McQueen.** “With this funding, EPA is committing to finding solutions to the challenges PFAS presents and bringing relief to rural communities.”
- “EPA is uniquely suited to lead and promote research on this important topic and USDA applauds EPA’s focus on farmers, ranchers, and rural communities. EPA’s funding of this research complements the work USDA does supporting U.S. production agriculture and ensuring a safe food supply,” **said USDA Deputy Under Secretary for Research, Education, and Economics Dr. Scott Hutchins.**
- “NASDA appreciates the EPA’s efforts to prioritize PFAS research that will help the agricultural community. As the primary stewards for the agricultural industries in their states, NASDA members will continue to work closely with the EPA as the agency implements its PFAS Action Plan. Together, we can ensure healthy communities and farms across America,” **said National Association of State Departments of Agriculture (NASDA) CEO Dr. Barbara P. Glenn.**

LEAD

EPA is committed to reducing lead exposures from multiple sources including lead-based paint, water, soil contamination and ambient air, identifying lead-exposed children and communities faster, communicating more effectively with stakeholders and supporting and conducting clinical research to reduce lead exposures and related health risks.

“Through the President’s Task Force on Environmental Health Risks and Safety Risks to Children, EPA is leading efforts to reduce childhood lead exposure in the United States,” **said EPA Administrator Andrew Wheeler.** “In addition to delivering on our Federal Lead Action Plan goals, EPA recently proposed the first major update in over two decades to the Lead and Copper Rule. I am proud of the progress we have made under the Trump administration to protect the health and future of our nation’s children.”

As we approached the one-year milestone of the release of the December 2018 Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts, EPA released a summative implementation report, Progress Report on the Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts, during Children’s Health Month in October 2019. The report highlighted EPA-specific goals, objectives and actions including:



Goal 1: Reduce Children’s Exposure to Lead Sources

- **Lead-Based Paint Hazards**
 - As a part of EPA’s efforts to reduce childhood lead exposure, EPA finalized a revision to the Dust-Lead Hazard Standards (DLHS) in July 2019. These standards strengthen the dust lead hazard standards for floors and window sills. Standards apply to most pre-1978 housing and child-occupied facilities, such as daycare centers and schools. The final rule revised the DLHS from 40 µg/ft² and 250 µg/ft² to 10 µg/ft² and 100 µg/ft² on floors and window sills, respectively.
 - EPA continued to provide annual funding to authorized states and tribal programs that administer training and certification programs for lead professionals and renovation contractors. Examples of activities include: outreach, education, oversight, and processing accreditation applications.
- **Drinking Water**
 - Partnering with HUD to aid with the potential cost associated with lead service line replacement by supporting states and cities to fully utilize the suite of funding and financing options provided by the federal government. These options include EPA’s Drinking Water State Revolving Fund, the Water Infrastructure Improvements for the Nation (WIIN) Act grant programs and WIFIA financing programs as well as HUD’s Community Development Block Grants.
 - Updated existing MOU, Reducing Lead Levels in Drinking Water in Schools and Child Care Facilities. The updated MOU includes current and new partners aimed to provide a more meaningful coordinated approach to help schools and child care programs which will be done in conjunction with the revised 3Ts toolkit and the newly announced Lead Testing in Schools and Child Care Programs Drinking Water grant authorized by the WIIN Act.

- Soil
 - Conducted research to improve the agency's understanding of the degree to which Superfund cleanups may lower blood lead levels at a wider range of lead contaminated sites.
- Ambient Air
 - Eleven of the 22 initial areas designated nonattainment for the 2008 Lead NAAQS are attaining. For the majority of the remaining nonattainment areas, lead emissions and monitored concentrations are declining due to implemented control measures and all nonattainment areas have fulfilled air quality implementation plan requirements.

Goal 2: Identify Lead-Exposed Children and Improve their Health Outcomes

- EPA's federal partners lead the actions under Goal 2. These actions focused on improving the identification of children exposed to lead through surveillance of blood lead level data and improving access to services and support designed to improve children's physical, developmental, and mental health.

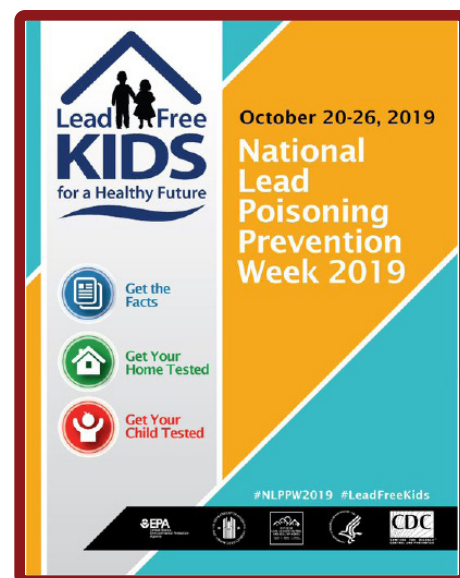
Goal 3: Communicate More Effectively with Stakeholders

- Published quarterly implementation status reports on EPA actions under the Federal Lead Action Plan.
- Developed outreach materials related to reducing lead exposures as part of EPA's celebration of Children's Health Month and Lead Poisoning Prevention Week.
- During FY19 EPA provided \$1,128,425 to support the Pediatric Environmental Health Specialty Unit (PEHSU) network. PEHSUs are a 20-year-old network of experts uniquely qualified to train health care providers on the prevention, diagnosis, management and treatment of lead exposure in children. There are 11 units around the country, several of which were originally lead clinics.
- EPA collaborated with over 200 tribal representatives and partners to develop and evaluate a new educational curriculum for tribes: Lead Awareness in Indian Country: Keeping our Children Healthy! The evaluation process

reviewed the feasibility, understanding, and design of the curriculum to ensure the product best serves tribes. The purpose of the education material is to raise awareness about childhood lead exposures; potential impacts on children's health and cultural practices; and encourage actions that can be taken to reduce and/or prevent lead exposures.

Goal 4: Support and Conduct Critical Research to Inform Efforts to Reduce Lead Exposures and Related Health Risks

- Obtained external peer review of the All-Ages Lead Model by the Science Advisory Board to potentially expand agency's capacity to incorporate intermittent and adult lead exposures to regulatory and risk assessment decisions.
- In May, EPA held an internal workshop on lead mapping efforts to initiate development of a coordinated agency-wide approach to fit-for-purpose lead exposure risk targeting and mapping.
- In December, EPA co-lead the development of a cross-agency research workshop where over 100 federal policy makers, regulators, and scientific staff from participating agencies in the President's Task Force on Environmental Health Risks and Safety Risks to Children convened to share progress, identify research gaps and opportunities, and prioritize next steps to implement the Goal 4 actions in the Federal Lead Action Plan.



CHILDREN'S HEALTH

EPA reaffirmed its commitment to protecting children's environmental health and celebrated Children's Health Month in October. Throughout the month, EPA officials at headquarters and all ten regions hosted on-the-ground events highlighting the importance of protecting children's health.

Key actions and accomplishments from 2019 include:

- **DERA Grants:** School buses travel over four billion miles each year, providing the safest transportation to and from school for more than 25 million American children every day. However, exhaust from diesel buses can harm health, especially in children, who have a faster breathing rate than adults and whose lungs are not yet fully developed. EPA has implemented standards to make newer diesel engines more than 90 percent cleaner.

In May, EPA awarded more than 49.3 million to replace 473 older diesel school buses in 145 school bus fleets in 43 states or territories. Just last month, EPA announced the availability of \$44 million grant funding to implement projects aimed at reducing emissions from the nation's existing fleet of older diesel engines. These rebates for public school bus fleet owners help replace older school buses with cleaner, more efficient models.

- **Outreach to Local Houses of Worship:** In October, Administrator Wheeler hosted a call with community faith leaders and released the Supporting Healthy Houses of Worship: Effective, Affordable Measures to Protect the Health of Congregations and Staff booklet. This booklet is designed to provide places of worship with information on actions they can take to reduce environmental health risks, with a special emphasis on children's health.
- **Children's Environmental Health Symposium:** In June, EPA joined Texas Tech University

Health Science Center and the Louisiana Department of Health in hosting a symposium on Children's Environmental Health in New Orleans, Louisiana. EPA program experts, children's health providers, and local health leaders held talks and workshops on a variety of topics, such as avoiding and testing for lead exposure, addressing pests and pesticide use in schools and childcare settings, and EJ issues. These discussions emphasized the symposium's objectives of helping participants recognize the continuing threat of lead poisoning to children, regardless of socioeconomic level; identify emerging threats to children's health; and identify triggers and preventive methods for environmental illnesses such as asthma.

Remarks at the Mid-Atlantic Lead Forum during Children's Health Month

"The first – and most fundamental – responsibility of government is to protect the people, especially the most vulnerable among us. All Americans – regardless of their age, race, income, or home address – deserve an opportunity to live in safe and healthy environments. And we know that children are especially vulnerable to the potential health effects of many hazards, including lead, which can severely and permanently impact their health and development. It is critical that our decisions and actions protect children's health and their future.

...

"We know that we can't be on the ground in every community, but with our strong federal, state, tribal, and local partnerships we know that our joint efforts will ensure that the needs of the most vulnerable are met and public health is protected. This is a philosophy we are working to instill across the agency. We want to ensure we are reaching and helping those most in need."

– EPA Administrator Andrew Wheeler

PUBLIC ENGAGEMENT & ENVIRONMENTAL EDUCATION

Environmental Education Grant Program

In 2019, EPA awarded 36 environmental education regional grants in 25 states for a total of \$3,253,920.

Environmental Education Teacher Training Program

Through EPA's teacher training cooperative agreement with the North American Association of Environmental Education, EPA conducted over 200 workshops, training, and webinars, reaching over 18,000 teachers, community members, and other environmental education professionals. The work of these individuals in schools, with after-school programs, in communities, and with the general public, helped bring environmental education programming and materials to over 2.8 million citizens.

Presidential Education Environmental Awards



In July 2019, the White House Council of Environmental Quality Chairman Mary Neumayr joined Administrator Wheeler in celebrating 200 award-winning students, educators, and honorable mention recipients at the Presidential Environmental Awards Ceremony. From across the

country, students and educators were recognized for their remarkable efforts that promote environmental education and stewardship.



Administrator Wheeler and Chairman Neumayr celebrate award-winning students at the Presidential Environmental Awards Ceremony.

EPA Administrator Andrew Wheeler:

“The Presidential Environmental Education Awards Ceremony is a day I look forward to each year because it is a time when we honor some of the best and brightest in environmental education and stewardship. This year, CEQ Chairman Mary Neumayr joined me in celebrating our 200 student and teacher winners who represent excellence in environmental protection. Congratulations and thank you to all our winners for their dedication to protecting human health and the environment.”

CEQ Chairman Mary Neumayr:

“It was a pleasure to join Administrator Wheeler as we recognized the achievements of students and teachers from across the country who are promoting environmental stewardship and furthering environmental education in their communities and schools. These students are our nation's next generation of leaders and are doing outstanding work.”

Partnerships

Agriculture

In 2019, EPA followed through on its commitment to listen to the needs of America's farmers. Over the past year, the agency welcomed over 650 farmers, ranchers, and rural stakeholders to EPA Headquarters for events, meetings, fly-ins, and awards ceremonies.

Administrator Wheeler and EPA took over 20 meaningful actions to meet the environmental needs of U.S. agriculture, including: completing various pesticide registrations and reregistration steps – including first-time registrations for pesticide use on hemp, repealing and moving to replace the 2015 WOTUS rule, instating year-round E-15, exempting air emissions from farm animal waste from reporting under EPCRA, reauthorizing use of sodium cyanide for predator control for farmers and ranchers in the West, promoting market-based approaches for managing nutrients including trading, developing a national water reuse action plan, supporting agricultural grants through EPA's Gulf of Mexico Program, and signing various collaborative agreements with FDA, USDA, and NGOs on ways to help reduce food waste among many other actions.

In November, EPA announced a solicitation for member nominations for the Farm, Ranch, and Rural Communities Federal Advisory Committee. In 2020, EPA will appoint 20 to 30 new members to the committee and seek their input on a variety of agricultural topics.

National FFA

In February, Administrator Wheeler signed a first-time MOU with National FFA, which has over 700,000 student members throughout its 8,612 chapters in all 50 states, Puerto Rico and the Virgin Islands. The MOU facilitates internship opportunities, connections between EPA Regional Offices and National FFA Chapters, and furthering outreach on EPA's environmental education efforts to rural areas.

American Conservation Coalition

In April, EPA Administrator Andrew Wheeler signed a first-time MOU with the American Conservation Coalition (ACC) to attract, educate, inspire and

prepare students for careers and opportunities in environmental career fields.



“[This] MOU with the American Conservation Coalition will help educate and encourage more students to get involved in important environmental issues like combatting marine litter, improving recycling, and reducing lead exposure,” **said EPA Administrator Andrew Wheeler.** “EPA is proud to work alongside ACC to inspire the next generation of environmental leaders and advance solutions to today’s pressing environmental challenges.”

“ACC is delighted to be working with the EPA on important projects to improve our environment,” **said American Conservation Coalition President Benji Backer.** “Environmental progress is important no matter where it comes from, and the EPA plays a vital role in protecting our environment. Administrator Wheeler and his team will be important allies for the environmental movement going forward.”



Administrator Wheeler and ACC President Backer sign the first-time MOU to enhance environmental education.

IN THE COURTS

This year, EPA's Office of General Counsel (OGC) continued to support the Trump administration's environmental goals by delivering several major wins in court, including the following:

Idaho Conservation League v. Wheeler, No. 18-1141 (D.C. Cir. July 19, 2019)

Idaho Conservation League v. Wheeler is a recent victory for the agency under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Onerous, duplicative, and unnecessary financial assurance requirements had previously been proposed for the hardrock mining sector, which would have cost hundreds of millions of dollars annually for a fraction of the benefit. EPA announced in February 2018 that it would not issue financial responsibility requirements for the hardrock mining industry because of existing federal and state requirements and improvements in modern mining practices. EPA was challenged on the final action and defended it successfully in court, which found no fault with EPA's statutory interpretation or technical and economic analysis.

Clean Water Action v. EPA, No. 18-60079 (5th Cir. Aug. 28, 2019)

In August 2019, a favorable ruling was issued in Clean Water Action v. EPA. In 2017, the agency decided to reconsider parts of a 2015 EPA rule that limited discharges from coal-fired powerplants to ensure they were technologically and economically achievable. In order to prevent facilities from investing money to comply with these limits while EPA reconsidered — and potentially changed — the limits, EPA delayed compliance for two years (2017 postponement rule). A consortium of groups challenged the 2017 postponement rule. In August 2019, the court rejected all of the challenges to the 2017 postponement rule, and EPA has since proposed targeted revisions to these limits to better reflect available technology and economically achievable limits.

California Communities Against Toxics v. EPA, No. 18-1085 (D.C. Cir. Aug. 20, 2019)

In California Communities Against Toxics v. EPA, the court dismissed a challenge to a January 2018 guidance memorandum withdrawing the 1995 “once-in-always-in” policy for classifying major sources of hazardous air pollutants and discussing EPA's plain language reading of the Clean Air Act (CAA) allowing major sources to reclassify as area sources at any time. Under the 1995 policy, even those sources that had cut their hazardous air pollutant emissions nevertheless remained subject for all time to major source requirements. In the January 2018 guidance memorandum, EPA explained that the CAA allows major sources that have reduced their emissions and taken an enforceable limit on their potential to emit to below the major source thresholds would no longer meet the definition of “major source” and so would no longer be subject to major source requirements. The court dismissed the challenge for lack of jurisdiction on the grounds that the January 2018 memorandum was not final agency action. EPA's plain language reading that major sources may reclassify to area source status at any time provides an incentive for innovation and pollution abatement.

Sierra Club v. EPA, No. 18-60116 (5th Cir. Oct. 3, 2019)

In October 2019, EPA prevailed in a case involving challenges to the agency's approval of Louisiana's regional haze SIP submitted under the CAA. In Sierra Club v. EPA, petitions were filed in court for review of EPA's approval of Louisiana's SIP for controlling regional haze. Ultimately, the court denied the petitions, noting in part that it affords “significant deference” to agency decisions involving analysis of scientific data within the agency's technical expertise.

Working collaboratively with states, local government, and tribes to effectuate laws that

protect human health and the environment is one of EPA's goals, and this case provides an example of the shared accountability that exists between EPA and the states to ensure that EPA's core mission of protecting human health and the environment is accomplished.

Alon Refining Krotz Springs, Inc. v. EPA, No. 16-1052 & consolidated cases; Coffeyville Resources Refining & Marketing, LLC v. EPA, No. 17-1044 & consolidated cases (D.C. Cir. Aug. 30, 2019)

EPA achieved a significant victory in related CAA cases decided together by a federal appellate court. In these related cases, petroleum refineries sought review of EPA's decision not to revise its regulation requiring refineries and importers, but not blenders, to ensure that transportation fuels sold in the U.S. market include the requisite percentages of renewable fuels. Another group of refineries challenged EPA's decision in the context of EPA's 2017 annual volumetric rule, which set the 2017 percentages for renewable fuel and the 2018 applicable volume for biomass-based diesel. This group also asserted that EPA arbitrarily set the 2017 percentage standards too high. Another group separately contended that EPA set the 2018 applicable volume for biomass-based diesel too low. The court denied all of the petitions for review, upholding EPA's renewable fuel standards.

Center for Biological Diversity et al. v. EPA, No. 18-60102 (5th Cir. Aug. 30, 2019)

In *Center for Biological Diversity et al. v. EPA*, environmental groups (Petitioners) filed a petition for review of a general permit that EPA issued for various oil and gas operations located in the Central to Western portions of the Gulf of Mexico. In August 2019, the court issued a unanimous opinion dismissing the petition in its entirety on grounds that the Petitioners lacked standing. The court noted, among other things, that the Petitioners did not sufficiently tie their interest in the Gulf to the specific locations where discharge would occur. Importantly, the court recognized that standing is not just an "empty formality."

Freedom of Information Act (FOIA):

This year, the National FOIA Office (NFO):

- Led EPA to significantly reduce its FOIA backlog.
- Finalized an updated FOIA regulation that brings the agency into compliance with a series of Congressional amendments.
- Led agency-wide Reform of FOIA Processing & Organizational Structure, which will allow EPA to minimize coordination required for initial assignment of FOIA requests and to ensure consistency in early outreach to requesters.

External Civil Rights Compliance Office:

In FY 2019, OGC's External Civil Rights Compliance Office (ECRCO) made significant strides in achieving its external civil rights mission. As an example, by December 2018, ECRCO had completely cleared its docket of overdue jurisdictional decisions and by November 2019, ECRCO had resolved all overaged complaints that required preliminary findings.



EPA's General Counsel, Matthew Z. Leopold, thanking the attorneys in the Office of General Counsel for their hard work over the past year.



OGC attorneys receive recognition for their legal counsel and hard work at the 2019 OGC Awards Ceremony.

AGENCY REFORM & PROCESS IMPROVEMENTS

In 2019, EPA used a Lean Management System (ELMS) to promote continuous improvement. Those tools allowed the agency to increase efficiency in several areas:

- *Permit streamlining:* In 2018, EPA set a goal to reduce the number of backlogged applications for new permits by 50 percent by the end of September 2019. In 2019, EPA exceeded that goal by reducing the backlog by 68 percent. In addition, EPA launched a comprehensive electronic system to track the status of pending applications for new permits in 2019.
- *Timely responses to EJ inquiries:* In 2018, EPA set a goal to improve the agency's response time to Environmental Justice Hotline inquiries by 93 percent. In 2019, EPA exceeded that goal by responding to more than 700 public inquiries received within 20 days or less 97 percent of the average time.
- *NEPA:* In 2018, EPA employed ELMS principles and collaborative problem-solving practices to improve the efficiency of the filing process for Environmental Impact Statements (EIS) prepared by federal agencies. In 2019, EPA reduced the lag time between the filing of Notices of Availability and the document publication by 40 percent. EPA also increased early engagement with federal agencies on EISs by 85 percent.

Smart Sectors

EPA's Smart Sectors program provides a platform to collaborate with regulated sectors and develop sensible approaches that better protect the environment and public health. The goals include: meaningful collaboration with regulated sectors; common-sense policies to improve environmental outcomes; and better EPA practices and streamlined operations.

In 2019, EPA strengthened and expanded external engagement via the Smart Sectors program through
50

the launch of Smart Sectors programs in all ten regions. In 2018, Smart Sectors programs were initially launched in Regions 1 and 8. By the end of 2019, all ten regions had launched Smart Sectors programs with events which covered a variety of sectors including agriculture, forestry, mining, oil and gas, cement, and concrete.

Small Business

EPA remained resolute in advancing the interests of small businesses while protecting human health and the environment. In 2019, EPA hosted an Associate Deputy Administrator Small Business Roundtable for senior leaders to discuss regulatory and environmental compliance issues with small business trade associations.

On the small business contracting front, EPA earned its tenth consecutive "A" on the Small Business Procurement Scorecard administered by the U.S. Small Business Administration (SBA). SBA awarded EPA the coveted Certificate of Recognition for being one of only a handful of agencies to receive that distinction. In FY 2019 EPA awarded 42 percent of its total prime contracting dollars to small business. That amount exceeds the government-wide statutory goal by almost 20 percent. In fact, in 2019 EPA awarded contracts to 872 small businesses, totaling over \$647 Million.

EPA's FY 2020 small business prime contracting goal is 35 percent. This means that at least 35 percent of EPA's total FY 2020 contracting dollars should be targeted for small businesses, including the four statutorily-designated subcategories of small businesses, consisting of small disadvantaged businesses, women-owned small businesses, service-disabled veteran-owned small businesses, and small businesses located in Historically Underutilized Business Zones. Achieving this new goal is important to supporting the vital role of small businesses in fueling our nation's economy.

REGION 1: New England

New Bedford Harbor Cleanup

In 2019, Region 1 achieved a significant milestone in the cleanup of New Bedford Harbor Superfund Site in southeastern Massachusetts. In September, EPA wrapped up 15 years of dredging, hydraulic transport, and shipment of over 600,000 cubic yards of highly PCB-contaminated dewatered subtidal sediment from the site. Intertidal cleanup and other work will continue at the site, as will work on a state-led project along the harbor waterfront, which is redeveloping an adjacent parcel to support the construction of a new Massachusetts Clean Energy Center to serve as shoreside support for offshore wind energy projects.

Revitalizing Old Mills and Creating Jobs

As the birthplace of the U.S. industrial revolution, New England is home to many historic mills and mill sites in need of revitalization.

1. At the 100-acre former Expera paper mill, which closed in 2015, Region 1 worked with Maine Department of Environmental Protection and the city to assess the extent of contamination and determine cleanup strategies. By the summer of 2019, a new owner – Nine Dragons Paper – had invested \$50 million in site improvements and remediation, and restarted operations creating 130 jobs.
2. In Bucksport, Maine, a \$280,000 EPA grant provided the technical support needed to transform the old paper mill into a \$250 million aquaculture facility creating an estimated 250 new jobs.
3. Leveraging sustainable materials management expertise, the region maximized recycling and re-use of the demolition debris from a 45,000 sq. ft. former Vermont mill, resulting in the generation of only four dumpsters of landfill waste.

Taking Action on Lead

In 2019, Region 1 awarded more than \$5 million to our state partners and nonprofits to address lead exposure issues in drinking water, soils, and lead paint. The region hosted outreach events that

allowed residents to bring soil samples to EPA's mobile lab for lead screening, hosted a "Get the Lead Out Summit" focused on creative strategies for removing lead drinking water lines and produced an informational video detailing the lead line replacement efforts of Claremont, NH and North Providence, Rhode Island.

The region also partnered with the State of New Hampshire to launch an online tool, "Protect Your Tap: a 10-minute lead test," allowing homeowners to find local lead pipes and reduce potential lead risk in drinking water.

Additionally, the region focused much of our Lead Renovation, Repair, and Painting (RRP) outreach in Vermont communities; this 6-month targeted education, training, and compliance initiative resulted in:

- 1,300 child care centers in Vermont received technical assistance from the region to identify risks of lead exposure from drinking water, dust from lead-based paint, and lead-contaminated soil.
- 277 newly RRP-certified renovation firms and contractors in Vermont.

Clean Water Infrastructure

Under the WIFIA program, \$269 million dollars were granted in 2019 to the Narragansett Bay Commission in Rhode Island. These funds, matched by the grantee, will help support a Combined Sewer Overflow project. This vital infrastructure work will create an estimated 1,700 jobs and save the water district ratepayers close to \$100 million in comparison to typical bond financing costs.



REGION 2: New Jersey, New York, Puerto Rico & U.S. Virgin Islands



Spotlight on U.S. Virgin Islands

As part of its continuing efforts to help the Caribbean develop solid waste program capacity, EPA approved the U.S. Virgin Islands' (USVI) municipal solid waste landfill permit program. This approval is a significant accomplishment for the Territory and enables the expansion of existing landfills, construction of new landfills, and design and operational flexibilities such as alternative daily cover and alternative financial assurance mechanisms. These authorities are essential to ensure that solid waste can be safely and sustainably managed.

EPA is continuing to assess landfills throughout USVI and Puerto Rico. Working with our federal, territorial, community, and education partners, EPA has convened stakeholders, facilitated dialogue, provided technical resources, and supplied key information to empower local decision-makers to move ahead with a solid waste management program for the Caribbean. To support these efforts as part of USVI recovery, \$10 million in supplemental funds have been allocated to the territory.

“I am very pleased that we were able to finalize our decision to authorize the U.S. Virgin Islands’ solid waste landfill permit program,” **said EPA Region 2 Administrator Pete Lopez.** “This approval empowers the USVI government to make necessary improvements to its solid waste management system and facilitates the Territory’s path toward a resilient future. EPA is working continuously with the USVI to help it build capacity to reduce waste, prepare for managing waste from future storms, increase recycling, and promote a comprehensive and robust solid waste management program.”

“With much excitement, the USVI reached a historic moment by receiving the authority to

permit landfills,” **said Division of Environmental Protection Director Kathlyn P. Worrell-George.** “I am ecstatic that the Division of Environmental Protection team and I were able to play a major role in such a triumphant achievement.”



Celebrating Superfund Success & Protecting Communities

Tonawanda Coke Corporation Clean-up

EPA continued its work to address serious contamination at the Tonawanda Coke Corporation Superfund Site in western New York State. EPA actions prevented large-scale release of hazardous waste, including releases to the bordering Niagara River, and mitigated the potential for fire and explosions which would have been devastating to the surrounding residential community and other industrial facilities nearby. EPA’s work at this site has helped leverage private investment intended to result in effective re-use of the site and the creation of new jobs.



Arsenic Mine Superfund Site

The Arsenic Mine Site is the location of a historic mine in Kent, NY that was operated from the mid-1800s through approximately 1918. EPA proposed to add the site to the NPL in May and finalized the listing in October.

“EPA’s forward-leaning and proactive actions at the Arsenic Mine Site have addressed the immediate need to protect people’s health by reducing residents’ exposure to arsenic contamination in the short-term,” **said EPA Region 2 Administrator Pete Lopez.** “[W]e are announcing the next major step in the cleanup by listing the site on the National Priorities List, which arms the agency with the authorities to address contamination at the site over the long-term.”

To reduce the potential for local residents’ short-term exposure to elevated levels of arsenic in the soil, EPA has installed barriers to contaminated soil in high-use areas. EPA has also implemented measures to reduce tracking of arsenic indoors by removing or replacing contaminated soil at the affected properties in gardens and areas used by pets and livestock.

EPA is also coordinating with government partners and conducts regular monitoring of residents’ drinking water supplies to confirm that treatment systems continue to be effective. EPA continues communications with residents to ensure that drinking water systems are adequately maintained.



Aerial map of Arsenic Mine Superfund site in Kent, New York.

Restoring Puerto Rico’s Ability to Address Water Infrastructure

In August 2019, EPA and Puerto Rico Aqueduct and Sewer Authority (PRASA) announced the restructuring of more than 200 delinquent loans

— totaling approximately \$571 million in principal — owed to Puerto Rico’s clean water and drinking water SRF programs. This restructuring cleared the way for the commonwealth’s idled SRF programs to once again provide critically needed funding to improve Puerto Rico’s water and sewer systems, create local jobs, and ensure that the people of Puerto Rico have safe and clean water.

PRASA provides drinking water to 97 percent of Puerto Rico’s 3.2 million people and sewer service to more than half of the Island’s communities. The lack of access to funding from the SRF programs has been a major obstacle to making water infrastructure repairs and improvements across the commonwealth.

“EPA is pleased that Puerto Rico’s SRFs are back on track and able to provide critically important funding for clean and safe water,” **said EPA Administrator Andrew Wheeler.** “With this loan restructuring, EPA is protecting taxpayer dollars while ensuring that funding is available for water infrastructure projects that will help build a stronger, safer, and healthier Puerto Rico.”

Newark Drinking Water

EPA has been working in close partnership with the City of Newark and the State of New Jersey providing technical support and assistance in seeking funding opportunities to help protect the citizens of Newark from lead in its drinking water. Most recently, EPA coordinated closely with the City of Newark and the New Jersey Department of Environmental Protection (NJDEP) to determine if drinking water filters provided to citizens of Newark by the city were reducing lead in tap water to levels of 10 ppb or below, under the current conditions in Newark, when the filters are properly installed and maintained. EPA is pleased that the collaborative work conducted was able to provide valuable information that a combination of flushing and filtering in Newark is the appropriate approach for reduction of lead levels in tap water in the Pequannock service area until the corrosion control treatment is optimized. EPA is strongly committed to continuing its long-standing and close collaboration with Newark and NJDEP to strengthen the city’s capacity to ensure that Newark area residents can continue to receive clean and safe drinking water.

REGION 3: Mid-Atlantic



EPA Administrator Andrew Wheeler, U.S. Senator Shelley Moore Capito, and Rep. Carol Miller tour a Superfund site in Minden, West Virginia.

In May, EPA Administrator Andrew Wheeler announced the addition of the the Shaffer Equipment/Arbuckle Creek Area Site in Minden, West Virginia as one of six Superfund sites in the nation added to the NPL. Since then, EPA's Mid-Atlantic Region has conducted several public availability sessions, updated the community through fact sheets, initiated a Removal Action to remediate an area of contaminated soil, completed repairs to a previously constructed remedy, and commenced Remedial Investigation fieldwork.

"This is such an important day because the great people of Minden have been hurting for too long and they've been waiting on this level of help for decades," **said West Virginia Governor Jim Justice.** "Our President, the EPA and our own Department of Environmental Protection here in West Virginia truly care about helping the people of Minden and, together with my office, we are finally taking major steps toward cleaning up this area once and for all. We are going to get it done."

"This was a real group effort, and I'm so glad that we are finally seeing this site make it on the Superfund priority list," **said Senator Shelley Moore Capito (R-WV).** "It's not only an acknowledgement of the work that needs to be done, but it's also a commitment from the federal government — a commitment of attention and resources and a commitment to provide more financial and technical assistance to clean up this site and any lingering PCB pollution in the surrounding area. That also

means delivering a new sense of safety and certainty to all those who call Minden home, and it means providing for the health and wellbeing of West Virginians."

"I am pleased by the addition of Minden to the EPA's Superfund National Priorities List. The contamination in this area has plagued our community for decades, and I am grateful that the Trump administration and Administrator Wheeler are working to improve Southern West Virginia," **said Rep. Carol Miller (R-WV-03).**

"It was a pleasure hosting Administrator Wheeler in Minden as we added the Shaffer Equipment/Arbuckle Creek site to the National Priorities List," **said EPA Region 3 Administrator Cosmo Servidio.** "For far too long this community has been ignored, and under this administration we are committed to ensuring that all the children in Minden can lead healthy lives.

Enhanced Outreach to Agriculture Communities

In 2019, EPA Region 3 Administrator Cosmo Servidio made a concerted effort to enhance outreach to the agriculture community to hear from farmers about the successes and challenges to producing food and having a clean environment, and to find ways to work effectively together.

In 2019, Region 3 reached out to over 1,400 members of the agricultural community through farmer roundtables, educational farm tours, field days, and meetings with leadership from agricultural organizations and federal/state agriculture agencies.

The Lancaster County (PA) Agriculture Roundtable Hosted by PennAg Industries Association, Region 3 Administrator Servidio and nine members of EPA's leadership team and agriculture staff toured a cage-free egg layer operation, a hog finisher operation, and a large dairy. These tours sparked productive conversations between EPA and producers on how best to work together to support farmers in managing manure and complying with regulatory programs.

REGION 4: Southeast

Accelerating Cleanup at Superfund Sites

Fairfax Street Wood Treaters

Six-months ahead of schedule, Region 4 successfully accelerated cleanup efforts resulting in a \$7.9 million remedy. This included the removal of over 50,000 tons of impacted soil and 300,000 gallons of water from over 50 residential properties. Region 4's Superfund and Emergency Management Division collaborative efforts with the Florida Department of Environmental Protection ensured the protection of public health for several neighborhoods near the site and the remediation of the 12.5-acre wood treatment plant. In November 2019, Region 4 held a public availability session to highlight the success of the cleanup and to recognize the collaborative model utilized at the site. The site, which is expected to be deleted in FY 2020, is poised for redevelopment opportunities and the community boasts recent graduates of EPA's Superfund Job Training Initiative.

Trash-Free Waters: Alabama

The Gulf of Mexico Program funded the Mobile Bay National Estuary Program (MBNEP) to reduce the amount of stormwater-borne trash and litter by at least 4,800 pounds by installing prototype trash traps, or "Litter Gitters," at ten strategically located stormwater outfalls in the Three Mile Creek Watershed. MBNEP has utilized the Escaped Trash Assessment Protocol at each Litter Gitter site to assess the condition of water quality and habitat and analyze constituent materials in collected trash and litter to determine weight, volume, and probable sources.

Farmer to Farmer Grants

Farmer to Farmer grants support projects to improve water quality, habitat, and environmental education through farmer-led or farm-focused organizations in the upper and lower Mississippi River basins. Since 2018, 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 2019, over \$7.5 million was awarded to seven recipients in Arkansas, Florida, Iowa and Mississippi. These projects will center around

innovative monitoring systems that will measure and report field scale water and nutrient dynamics to farmers in support of informed crop management decisions.

Brownfields

The Region 4 Brownfields program continues to lead the nation in several programmatic areas. Region 4's program exceeded the assessment national target of 100 with 410 assessments completed; the highest in the nation. Region 4 was also the first in the nation for returning land for beneficial reuse under the Ready for Anticipated Use program, exceeding the national target by 108.

Through successful collaborations, Region 4 communities leveraged over \$561,000,000, leading the nation in the investment of resources for community revitalization. Notably, Region 4 has ranked first in the nation four out of the last five years under this metric, with over \$500,000,000 a year in documented leveraging.

Food Recovery Efforts

In February 2019, Region 4 partnered with a local nonprofit, Second Helpings Atlanta, to rescue over 17,000 pounds of high quality, healthy, nutritious food, which would have otherwise gone to a landfill, during Superbowl LIII in Atlanta, GA. Instead of landfill disposal, this food was provided to local community charities which provided over 14,000 meals to those in need.

Lab Support to States

Region 4 laboratory support is a critical tool available to states without the resources to maintain a robust and expanded analytical program. Region 4 proudly continues to refine our analytical methods and protocols in concert with evolving science. Specifically, in 2019, Region 4 conducted more than eight sampling projects in Alabama, Georgia, Mississippi and South Carolina and processed over 750 PFAS and EtO analyses in support of state activities.

REGION 5: Great Lakes

Great Lakes Restoration

In 2019, EPA funded, through the Sustain Our Great Lakes program, 26 restoration projects across the basin totaling \$6.9 million with non-federal investments totaling \$8.1 million. Region 5 also removed nine beneficial use impairments at five Areas of Concern in five states – putting them on the path to recovery and de-listing, and promoting environmental and economic revitalization in surrounding communities.

Region 5 launched a new Trash-Free Great Lakes grant program, making \$2 million available for beach, shoreline and waterway cleanups throughout the basin. In addition, EPA provided \$11.5 million in grant funding for 21 projects to reduce nutrients throughout the basin. In 2019, a new grant category was included which funded five innovative water-quality trading projects that will promote cost-effective and market-based approaches to reducing excess nutrients to surface waters.

“The projects we have selected support EPA’s new strategy for combatting excess nutrients in our Great Lakes,” **said EPA Administrator Andrew Wheeler.** “Facilitating the adoption of innovative market-based solutions will ensure the Great Lakes basin remains safe and accessible to everyone who lives and works there.”

“Reducing stormwater and nutrient runoff is a critical part of restoring the Great Lakes,” **said former EPA Region 5 Administrator and Great Lakes National Program Manager Cathy Stepp.** “EPA is proud to offer GLRI funding for on-the-ground projects that will reduce runoff pollution and improve water quality in the Great Lakes basin.”

Great Lakes Action Plan

Grants are part of the larger effort to restore and protect the Great Lakes through the GLRI. In October, EPA announced the GLRI Action Plan III, an aggressive plan that will guide Great Lakes restoration and protection activities by EPA and its many partners over the next 5 years – fueling local and regional economies and community revitalization efforts across the basin.

“President Trump’s EPA has made tremendous environmental progress and their plan to accelerate the restoration of the Great Lakes is a win for conservationists and Hoosiers,” **said U.S. Senator Mike Braun (IN).** “This decisive action will keep Asian carp out of the Great Lakes, reduce harmful algal blooms and protect fish, birds and other animals whose habit relies on the Great Lakes.”

“The work done through the Great Lakes Restoration Initiative (GLRI) ensures our most treasured natural resource remains vibrant. Through President Trump’s support and Administrator Wheeler’s strong commitment to the Great Lakes, this new 5 year plan will provide a strong focus for the critical mission of the GLRI. This vision is a key element to protecting the Great Lakes and preserving the health of our communities, our rich sportsman heritage, and the economy of northern Michigan and the Upper Peninsula,” **said Rep. Jack Bergman (R-MI-01).**

“The Great Lakes Restoration Initiative has played an important and critical role in preserving and protecting the Great Lakes,” **said Rep. Bill Huizenga (R-MI-02), Co-Chair of the House Great Lakes Task Force.** “The announcement of the GLRI Action Plan III will build on this success and strengthen the cleanup of legacy pollution, restore habitat, and combat invasive species across Michigan. I am glad to see Administrator Wheeler work to make the Great Lakes a national priority.”

“I have worked alongside my colleagues in Congress to advocate to the administration about how important the Great Lakes are to everyone in Michigan and I welcome today’s announcement for the next five years of the GLRI,” **said Rep. John Moolenaar (R-MI-04).** “Working with partners including CMU and Ducks Unlimited, the GLRI has done incredible work to protect the Great Lakes for future generations and this new plan will continue that commitment in the years ahead.”

“In Michigan, the Great Lakes impact every facet of our daily lives, from the significant economic benefits to all the recreational activities we enjoy,”

said Rep. Tim Walberg (R-MI-07). “The Great Lakes Restoration Initiative has supported many successful projects and is critical to cleaning up pollutants, stopping the spread of invasive species like Asian Carp, and reducing algal blooms. I am pleased to see the EPA take important action to expand these efforts to help ensure the Great Lakes are in good health for future generations.”

“The EPA’s updated action plan sets an aggressive path forward to protect and restore the Great Lakes under the Great Lakes Restoration Initiative, which has been a catalyst for unparalleled federal agency coordination to fund more than 4,800 projects that address the largest environmental issues facing the Great Lakes. I look forward to working with EPA to continue improving water quality, protecting and restoring native habitats and species, and preventing and controlling invasive species,” **said Rep. Paul Mitchell (R-MI-10).**

“As someone who grew up on the shores of Lake Erie, I’m proud to be a champion of the Great Lakes Restoration Initiative in Congress,” **said Rep. Dave Joyce (R-OH-14), Ranking Member of House Appropriations Interior-Environment Subcommittee.** “The Great Lakes provide more than 1.5 million jobs, supply 90 percent of our nation’s fresh surface water, support over 3,500 species of plants and animals, and generate \$62 billion in wages every year. I applaud the administration for recognizing the importance of this vital program and look forward to continuing our work to protect and preserve the invaluable natural resource and economic powerhouse that is the Great Lakes System.”

“The Great Lakes are critical to Northeast Wisconsin’s economy and way of life,” **said Rep. Mike Gallagher (R-WI-08).** “We’ve seen firsthand how GLRI dollars successfully reduced harmful algae in Green Bay, and I’m glad that GLRI Action Plan III will build upon this success and take action to ensure the Great Lakes are clean for generations to come.”

“The partnership between the EPA and its Federal and State partners announced today on the GLRI Plan III is vitally important to the environmental quality of our Great Lakes. These efforts are crucial

to our entire region’s economy and quality of life for our residents and for those who visit and enjoy Michigan’s lakes and streams,” **said Canton, Mich. Township Supervisor Pat Williams.**

Superfund Success

Region 5 deleted six sites from the NPL, completed remedy construction at 16 sites, and determined that 26 sites are now ready for reuse. The region completed 50 emergency removals to address immediate threats to public health – exceeding target by 47 percent and deployed staff to 36 emergency response sites involving hazardous waste or oil cleanups.

Cleaner Air

This year, EPA Region 5 completed five air quality re-designations – a third of the nation’s total – and on track for an unprecedented 15 more areas to be re-designated in 2020. In August, Columbus, Ohio was the nation’s first non-attainment area to meet the 2015 ozone air quality standard – delivering cleaner air for 4 million people. Now that Columbus has been re-designated, businesses will face fewer air permitting restrictions paving the way for infrastructure investment and economic development that will create jobs.

“Today is a very good day for everyone who lives and breathes in the greater Columbus area,” **said former EPA Region 5 Administrator Cathy Stepp.** “The Columbus success story is the direct result of the cooperative partnership between the U.S. EPA, the State of Ohio, the city, local government entities and industry to improve air quality which in turn spurs economic development and revitalization.”



Former EPA Region 5 Administrator Cathy Stepp and Ohio EPA Director Laurie Stevenson announce the re-designation of Columbus for ozone air quality standards.

REGION 6: Arkansas, Louisiana, New Mexico, Oklahoma & Texas

Tar Creek Superfund Site, Ottawa County, Oklahoma

With funding assistance of over \$9 million, the Oklahoma Department of Environmental Quality and the Quapaw Nation of Oklahoma removed over 1.5 million tons of toxic chat from the Tar Creek Superfund site providing a healthier environment for the citizens of Northeastern Oklahoma. The cleanup furthers the commitment EPA made in the Federal Lead Action Plan by managing lead contamination at Superfund sites, thereby reducing exposure to community residents.

EPA also provided the Quapaw Nation \$285,152 to relocate a family with a 3-year old child residing in Picher, Oklahoma. The family lived near an old lead smelter facility, and the child's blood levels tested high for lead. The relocation effectively removed the family from harmful exposures. EPA released the Site-wide Strategic Plan, which resulted in the first national conservation easement recorded on tribally-owned property at a Superfund Site. To date, approximately \$425 million has been spent on this clean-up.

Cleanup & Development of the Former Evans-Fintube Site:

The Evans-Fintube site in Tulsa, Oklahoma, 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 which included asbestos, PCBs, lead, and soil and groundwater contamination was visible from City Hall and a constant reminder of the work that needed to be done. This property had long-term environmental and social impacts on the EJ community of Greenwood Historic District.

For the past seven years, the brownfields team has been utilizing various grant instruments with the City of Tulsa to not only plan and assess, but also to clean up the old Evans-Fintube property for redevelopment. Two years ago, the BMX Corporation saw potential and expressed interest in the property for its USA Headquarters. On November 15, 2019,

USA BMX held a groundbreaking ceremony and unveiled the final design for its world headquarters. EPA invested \$950,000 in this property to receive anticipated leveraging of \$23 million once the Headquarters is completed.

Plains/Encycle Facility Corpus Christi, Texas

The final cleanup of the Plains/Encycle site in Corpus Christi, Texas has been achieved and the former zinc smelter and hazardous waste recycling facility bordering an EJ community has been redeveloped into a productive shipping dock and tank farm along the Corpus Christi ship channel. Approximately 20,000 tons of soil contaminated with heavy metals were removed. Over 50 industrial buildings at the site, many contaminated with asbestos and PCBs, were demolished with approximately 150,000 tons of debris generated and removed.

This approximately 108-acre property on the banks of the Corpus Christi Ship Channel and adjacent to a high priority EJ community, Dona Park, has now been redeveloped as a crude oil storage tank farm and ship channel dock. Texas Council on Environmental Quality and EPA worked in partnership to ensure that the demolition and remediation did not impact the nearby Dona Park community and engaged often with the local community providing them many opportunities to review remediation plans and provide input into the cleanup process.

The completion of the cleanup activities and subsequent redevelopment at Plains/Encycle is a significant environmental milestone. One of the state's most contaminated properties is now cleaned up, redeveloped, and making a significant contribution to the Corpus Christi economy. The Port of Corpus Christi is currently the third largest U.S. port in total revenue tonnage, and now the new terminal has added a loading capacity of 50,000 barrels of crude oil per hour, four crude oil storage tanks with an aggregate capacity of approximately 1.4 million barrels and the capability to expand.

REGION 7: Kansas, Iowa, Missouri & Nebraska

Reducing Childhood Lead Exposure

In FY 2019, Region 7 developed a strategic action plan to reduce childhood lead exposure across all regional programs. Air represents one of our region's broadest exposure pathways for lead, so it was with great satisfaction that the region designated one of the four lead non-attainment areas back to attainment as a result of air monitor data showing compliance with NAAQS. This action signaled improved air quality for over 90,000 people living in the Council Bluffs, Iowa, area.

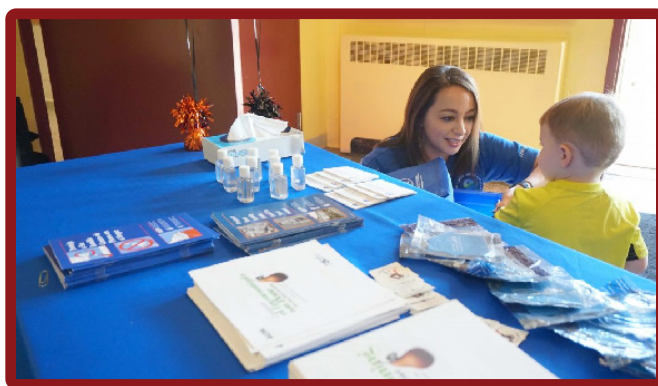
Region 7 also continues to grapple with the impact of lead mining, which spans almost two centuries. In this area, Region 7 made great strides using Superfund authority, remediating an estimated 1.205 million cubic yards of mine waste on 354 acres and 173,168 cubic yards of lead-contaminated soil at 746 residences across 11 Superfund sites. These milestones were achieved despite record spring rainfall, which hampered field work.



Lead yard clean up in Omaha, Nebraska.

In addition to achievements for air and land, Region 7 focused outreach efforts on St. Joseph, Missouri, an urban community that exhibits nationally-significant elevated blood lead levels. Our outreach efforts connected with over 55,000 people (or about 110 percent of our target and approximately

70 percent of the total St. Joseph population) to educate them on the risks of lead and what can be done to minimize exposure. In concert with this outreach, Region 7 leveraged enforcement authorities under TSCA's Renovation, Repair, and Painting Rule to create learning opportunities for our regulated community and their customers. Region 7 conducted 82 work-practice and records inspections in FY 2019, exceeding an end-of-year goal of 80.



Region 7 outreach efforts in St. Joseph, Missouri.

Increasing Community Water System Compliance

Region 7's Public Water System Supervision team, working with counterparts in the Enforcement & Compliance Assurance Division and state program offices, have realized a major achievement this year: by meeting the national priority 25 percent reduction of community water systems with health-based violations (as compared to the third quarter 2017 baseline data). By the second quarter of 2019, Region 7 states had reduced the number of community water systems with health-based violations to 188, as compared to 258 systems in the third quarter of 2017. Specific work was focused on the disinfection by-product violations, which represented the largest area of non compliance.

Prioritizing Land Revitalization

In furthering EPA's priority goal of accelerating Superfund cleanups and returning sites to beneficial use, Region 7 committed itself in FY 2019 to land cleanup and revitalization efforts to identify sites with redevelopment potential and

to provide assistance to local communities, state partners, and other interested parties. As a result of this revitalization priority, Region 7 assessed 141 properties, exceeding the target of 110, and cleaned up 16 properties, beating the target of 3.

In addition, Region 7 achieved Site Wide Ready for Anticipated Use at three sites on the NPL, returning more than 900 acres to beneficial use in those communities. Redevelopment potential was advanced in other parts of the four-state region through rapid response to 17 Prospective Purchaser Inquiries; timely transmittal of nine comfort letters to interested parties; issuance of one Bona Fide Prospective Purchaser Doing Work Agreement; and preparation of redevelopment recommendations for four communities within a former mining site.

In FY 2019, Region 7 also focused on information gathering and outreach related to Opportunity Zones in Iowa, Kansas, Missouri, and Nebraska. The goal of this engagement was to determine how Region 7 can best assist these communities — particularly small and rural communities — overcome challenges they face in attracting investment in their Opportunity Zones. To accomplish this goal, Region 7 participated in Opportunity Zone workshops along with other federal and state agencies in Des Moines, Wichita, Kansas City, and St. Louis. The region also met with state economic development agencies in all four states as well as local officials in 11 different Opportunity Zone communities. This work formed the basis for developing an Opportunity Zone work plan that will guide efforts to assist Opportunity Zone communities in FY 2020.

Strengthening Relationships with the Agricultural Sector

Recognizing the importance of agriculture to America's heartland, Region 7 identified four focus areas to develop a strong partnership with the agricultural sector in FY 2019 and beyond. First, Region 7 built trust with and provided regulatory certainty to anhydrous ammonia retail facilities by conducting chemical accident prevention compliance assistance workshops and mock inspections. The region engaged and educated more than 100 industry representatives through this initiative, investing in the idea that chemical

accident prevention, preparedness, and response requires strong partnership across all levels of government, industry, and the public.

In addition, Region 7 partnered with states and tribes to provide more than 80 informational outreach events to the public and agricultural stakeholders on how to identify, report, and prevent harmful algal blooms. This outreach priority was bolstered by Region 7's selection for an ORD Innovations project through which EPA will award a prize to a high school student who produces the best public service video about harmful algal blooms.



EPA Region 7 Administrator Gulliford meets with Iowa Secretary of Agriculture Mike Naig at the Iowa State Fair where EPA presented a \$1.15 million grant to the Iowa Department of Agriculture and Land Stewardship.

Finally, Region 7's fourth agricultural initiative was aimed at supporting and sharing information with agricultural stakeholders and municipalities to accelerate investment in water quality trading and other market-based conservation programs that reduce pollutants in our nation's waters. Upon release of a Memorandum of Understanding between EPA and USDA in January 2019, Region 7 worked in overdrive to present and discuss numeric nutrient trading at over 20 meetings and conferences throughout the four-state region.

In each of these focused outreach areas, Region 7 strives to be an effective partner with the agricultural sector to ensure the delivery of cleaner air and water in the region.

REGION 8: Mountains & Plains

Addressing Emerging Contaminants in Drinking Water

Region 8 focused on new efforts to address emerging contaminants in drinking water. Public water suppliers required to sample for unregulated contaminants may find finished water has levels of contaminants that exceed health advisories but are unregulated under the Safe Drinking Water Act. To rectify this regulatory gap, the Drinking Water Program advised states on how to address these situations. The advisory document proved critical when 12 water systems in the region identified levels of manganese in their water above health advisories. Using the information provided by Region 8, state partners worked with the water systems to notify these communities, and in some cases determine that “Do Not Drink” orders were appropriate. The guidance resulted in more than 17,000 people quickly receiving information that their water had manganese above health advisories.

Brownfields Highlights

In 2019, 120 Brownfields properties in Region 8 were made Ready for Anticipated Use, a 100 percent year-over-year increase compared to 2018. These projects leveraged \$122 million in redevelopment investments and 906 local jobs. In one example in Lakewood, Colorado, a \$200,000 EPA grant to address a chlorinated solvent plume leveraged \$3.48 million in tax credits and low-income housing financing and paved the way for the development of 52 affordable housing units at the Fifty Eight Hundred complex.

The Region 8 Brownfields team also worked with tribal partners to remediate 14 contaminated sites in Indian country. In July 2019, the Turtle Mountain Band of Chippewa Indians used a \$200,000 grant to cleanup asbestos-containing materials in three badly dilapidated buildings at the L’BelCour housing complex in Belcourt, N.D. The neighborhood consists of 18 structures, with many of the housing units occupied despite being in extremely poor condition and the widespread presence of asbestos. In partnership with EPA and HUD, the Turtle Mountain Band of Chippewa Indians is moving forward with plans to systematically cleanup, demolish, and replace all 18 structures while they also look to take advantage of the area’s new status as a Qualified Opportunity Zone.

East Helena Superfund Redevelopment



The East Helena Smelter Site (ASARCO Lead Smelter) was listed on the NPL in 1984 due to lead and arsenic contamination in the community’s soils and arsenic in groundwater. In 2005, ASARCO filed for bankruptcy and in 2009 the Montana Environmental Trust Group was appointed as the Custodial Trustee to complete cleanup at the site. Over 2,000 acres of property and \$96 million were transferred to the Trust. As a result of

JOB

EPA brownfield grants have led to a visible difference in communities across the country.

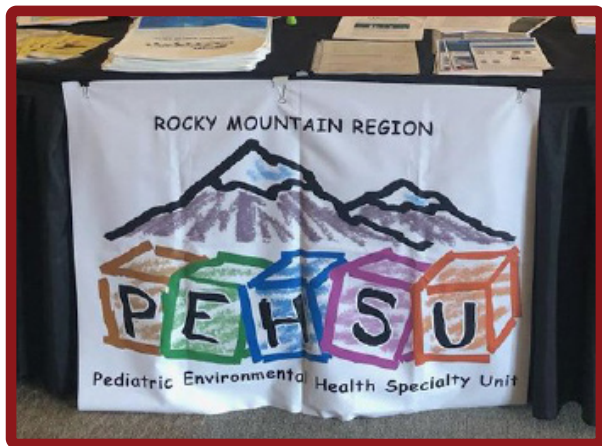
AS OF MAY 2019:

- 30,153 properties have been assessed
- 86,131 acres of idle land have been made ready for productive use
- More than 150,120 jobs and more than \$28 billion of public and private funding has been leveraged

www.epa.gov/brownfields

EPA's assistance with East Helena's planning and redevelopment efforts, the site now hosts the state-of-the-art Lewis & Clark County Search and Rescue facility, the new Prickly Pear Elementary School, the future site of the new East Helena High School, and a 300-home subdivision. In addition, over 180 acres of the Prickly Pear Creek floodplain have been restored, the Prickly Pear Land Trust Greenway trail project will soon be a reality, and the U.S. Fish and Wildlife Service is working on a restoration plan for 80 acres of migratory bird habitat and native upland grasses. 240 acres of the site were recently sold for commercial/mixed use redevelopment. Collectively, these projects represent 700 acres redeveloped or transitioned for redevelopment.

Pediatric Environmental Health Specialty Unit



Pediatric Environmental Health Specialty Units belong to a network of Environmental Health specialists who work with healthcare professionals, parents, community groups, and schools to address children's environmental health issues.

EPA Region 8 provided funding to the R8 PEHSU to conduct outreach and education on reducing and preventing childhood lead exposure. The PEHSU disseminated materials to various partners such as state and local health departments and clinicians. The PEHSU also collaborated with Denver Health to develop a geo-mapping tool using 17,000 lead test results collected over the last three years. The maps concentrate on the Denver area, but will likely expand to cover other parts of Colorado. The PEHSU will present on this information at the Frontiers of Medicine Conference in Casper, Wyoming, and the Wyoming Medical Society's annual meeting in 2020. Additionally, the Region 8 PEHSU participated in three public health meetings and the National Association of School Nurses Conference to share

important information on children's health, reaching approximately 2,400 people.

Improving Air Quality

Salt Lake City and Provo, Utah Achieve Attainment
On April 10, 2019, and September 27, 2019, EPA finalized approval of Clean Data Determinations for the Provo and Salt Lake City fine particulate (PM_{2.5}) nonattainment areas. These approvals mean the Wasatch Front in Utah has attained the 24-hour PM_{2.5} NAAQS after exceeding the standard for the prior 13 years. The determinations were based on certified air monitoring data from the 2015-2017 (Provo) and 2016-2018 (Salt Lake City).

Prior to 2019, Region 8 worked with the State of Utah to develop the Salt Lake City Serious PM_{2.5} SIP, which included: an attainment demonstration, contingency measures, reasonable further progress, motor vehicle emission budgets, best available control measures (BACM), best available control technologies (BACT) for sources within the nonattainment area. Additionally, Utah submitted BACM/BACT for the Provo Serious PM_{2.5} nonattainment area. These measures, in conjunction with enhanced vehicle emissions testing programs and budgets and the state's wood-burning bans, contributed to the areas coming into attainment with the NAAQS. This major success story reflects the strong partnerships between EPA, the State of Utah, and local entities.



REGION 9: Pacific Southwest

State Implementation Plan Successes

Region 9's Air & Radiation Division exceeded our goal of acting on 54 SIP submittals and took final action on 81 SIP submittals. To help reduce the number of old or un-approvable SIPs in the Region's backlog, Region 9 set a goal of achieving 14 SIP withdrawals, increasing the number of withdrawals from the prior year by 25 percent.

A key achievement in the region's air office was approving Portola, California's PM2.5 attainment plan. Portola's innovative plan is based on a locally implemented voluntary woodstove change-out program in a small rural area where woodsmoke is the primary pollutant. The voluntary program was funded by an EPA targeted airshed grant and the attainment plan includes an enforceable local measure that will be triggered should emission reductions be less than expected.

Partnerships & Grants

Due to the air quality challenge of wildfires in the Western U.S., EPA Region 9 has formed a "Smoke Team" to handle the many challenges related to wildfire smoke response and prevention. This year the emphasis has been on smoke-event preparedness for the workforce and communities. Region 9 has engaged with states, tribes, local cities, and regional and national associations to provide expertise and tools in order to support smoke-event preparedness in communities.

Environmental Protection at the Southwest U.S. Mexico Border

Region 9 convened 15 stakeholder meetings in 2019 along the Arizona and California border. These meetings served to update federal, state, and local elected officials and organizations on options to control transboundary sewage flows in the Tijuana area.

EPA funded and worked closely with North American Development Bank (NADB) to produce a feasibility analysis of high priority infrastructure options in the U.S. and Mexico to stem transboundary sewage flows. The NADB report, issued in August 2019, is

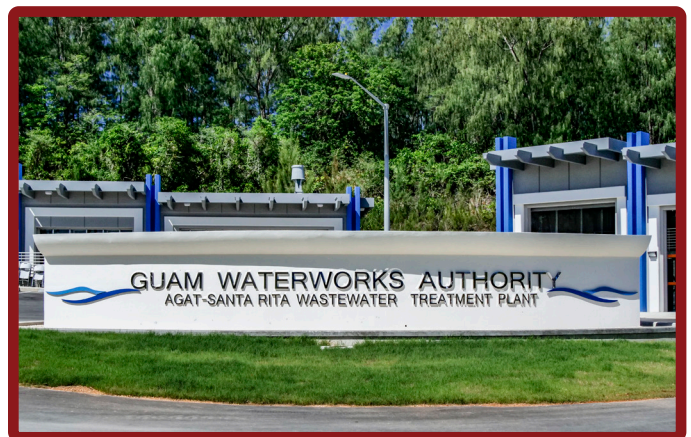
facilitating interagency discussions intended to yield consensus agreement on infrastructure priorities.

EPA joined with International Boundary and Water Commission (IBWC) and the State of Arizona to identify integrated solutions to ongoing transboundary pollution issues in Nogales, Sonora, and Arizona, including infrastructure funding strategies.



Pacific Island Territories

Region 9 awarded \$30 million in FY 2019 to the Pacific Island Territories for water and wastewater infrastructure projects. In addition, Guam initiated construction of a major upgrade to the Northern District Wastewater Treatment Plant. This is part of a \$174 million partnership with EPA and Guam that the U.S. Department of Defense is funding to upgrade civilian wastewater facilities impacted by the military.



REGION 10: Pacific Northwest

Restoring Drinking Water System for 3,000 people in Central Oregon Tribal Community

Region 10's enforcement program used Safe Drinking Water Act emergency orders in response to significant public water system distribution failures in several tribal communities across the region. These orders have spurred action to help restore the systems and provide safe water to these communities.

One of the systems requiring immediate action was on the Confederated Tribes of Warm Springs reservation. Long-standing problems at the aging public water system serving over 3,000 people resulted in total system failure and water "outages" which required providing bottled water for several weeks to businesses, residences, and other public services. The lack of drinking water also forced the closure of the early education center. EPA is helping bring together other federal agencies and other possible funding sources to assist the tribe in their long-term infrastructure planning and financing.

National Estuary Program Efforts Protect and Restore Some of the Most Treasured Water Bodies

Puget Sound

Region 10 approved the updated Comprehensive Conservation Management Plan for Puget Sound and provided over \$28 million in grant funds to state, local, tribal, and federal partners towards Puget Sound recovery and conservation efforts through its National Estuary Program. Thanks to funding from EPA's Puget Sound National Estuary Program, more than 800 acres of shellfish beds opened in Portage Bay. EPA funding that went to the Washington Department of Health, which supported local partners in Whatcom County, and the Lummi Indian Nation supported collaborative efforts to open up 800 acres for shellfish harvest in Portage Bay. These important harvest areas for the Lummi Nation have been closed for many years.

Highlights include:

- The protection and restoration of an additional 2,474 acres of key Orca and salmon habitat.

- Funding of seminal stormwater toxicology applied research to reduce toxics in fish and benefit Orca recovery.
- Re-connection of dozens of miles of stream to support fish passage to and from spawning and rearing habitats largely through the removal of culverts.
- Development of sophisticated computer models on the impact of nutrients on Puget Sound water quality.

Tillamook National Estuary Program

EPA fully approved a new Comprehensive Conservation Management Plan for the Tillamook Estuary Partnership that expanded their geographic scope to new adjoining coastal estuaries/watersheds and further refined that strategic recovery planning, monitoring, and stewardship efforts.

Columbia River Basin Restoration Program

EPA designed and implemented a new program mandated by the 2016 Columbia River Basin Restoration Act. In FY 2019, EPA received \$1 million in appropriations for the first time. After many years of visioning, discussion, strategizing, and legislative action, EPA was charged with the responsibility of standing up a grants program to address toxic pollution in the Columbia River Basin. Region 10 has developed a program plan, invited members to the working group, and released the Request for Applications. The region will be awarding the first grants under the program in early FY 2020.

North Idaho Community Reduces Attains Air Quality Standards

Pinehurst Idaho, a northern Idaho mountain valley community, and the adjacent Pinehurst expansion area have come into attainment for NAAQS for PM10 after more than 30 years of nonattainment status. Coming into attainment is the culmination of close nearly 30 years of work by the community, the State of Idaho, and EPA to reduce PM10 emissions from woodburning devices, the primary contributor of elevated PM10 in the area.





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