2019 Region 4 Annual Report

Publication number: 904R20001

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THE SOUTHEAST – PEOPLE AND ENVIRONMENT

The population of the eight southeastern states that make up Region 4 is growing, with much of that growth concentrated in our cities and along our coasts. According to the 2015 census data, Region 4 has a population of almost 67 million people, making the Southeast the largest region with 20% of the nation's population.

Region 4 makes up approximately 11% of the U.S. land area, and contains 14% of the U.S. watersheds and the most miles of rivers in the continental U.S. The region is characterized by a diverse and significant amount of the nation's natural resources. When Region 4 is viewed as a portion of the continental U.S., we have one-third of the existing wetlands, mostly in coastal areas. We also have one-third of the estuaries and one-third of the continental U.S. coastline. Inland, we have the expansive Mississippi, Ohio, Tennessee and Savannah River systems. Both agriculture and forestry are also dominant features of our landscape. Greater than 32% of the land in Region 4 is used for agricultural production, though forests alone occupy the majority of our land.

Scattered throughout the region are a number of well-known, diverse landscapes. The region contains approximately 40 million acres of the Appalachian Mountains, including 5 million acres of the Smoky Mountain National Forest – the largest contiguous tract of public land in the eastern U.S. Region 4 is also home to the 1.5 million acre Everglades National Park, the largest subtropical wilderness in the U.S.

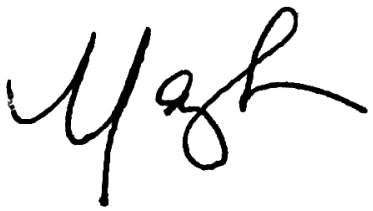
Because of our abundant and varied ecosystems, the region provides habitat for a diverse array of both plant and animal species. This diversity can be seen in the fact that the Southeast is home to 98% of the nation's commercial marine species, provides habitat for more amphibians and reptiles than anywhere else in continental North America, and serves as the resting grounds and the winter habitat for migratory birds flying along both the Mississippi and Atlantic flyways.

A WORD FROM THE REGION 4 ADMINISTRATOR

Eight states and six federally recognized tribes make up the vast and diverse Southeast region. From the rolling green pastures of Kentucky, to the mountains of the Eastern Cherokee, to the Gold Coast of Florida, and continuing on to the rich Gulf Coast, the U.S. Environmental Protection Agency Region 4 has a little of everything. Being an Alabama native, I've long called the Southeast home and am honored and humbled to work alongside the hundreds of Region 4 employees dedicated to protecting our environment.

This year in particular marks an important milestone: the EPA will celebrate its 50th anniversary on December 2, 2020. Across the agency we are reflecting on our progress as we have worked to fulfill our mission of protecting human health and the environment. This report presents our accomplishments over the past calendar year (January 1 to December 31, 2019) – work improving the air, water and land across the Southeast to provide a cleaner, healthier environment for all who live and work in the region.

Protecting the Southeast environment is important work, and work that we cannot do alone. I hope you will be inspired by our successes and join us in continuing to build on our progress for future generations.



Mary S. Walker

EPA Region 4 Administrator

GOAL 1: A CLEANER HEALTHIER ENVIRONMENT

Objective 1.1 Improve Air Quality

Air Quality

100%

Region 4 states in attainment with air quality standards for small particulates ($PM_{2.5}$), lead, nitrogen dioxide and carbon monoxide

175

Timely reviewed permitting actions

80

Local partners attended permit meeting in Atlanta

64

State Implementation Plans (SIP) finalized; 44 within the statutory timeframe

1.5M

People now enjoy improved air quality in two areas of Florida redesignated from nonattainment to attainment for lead and sulfur dioxide

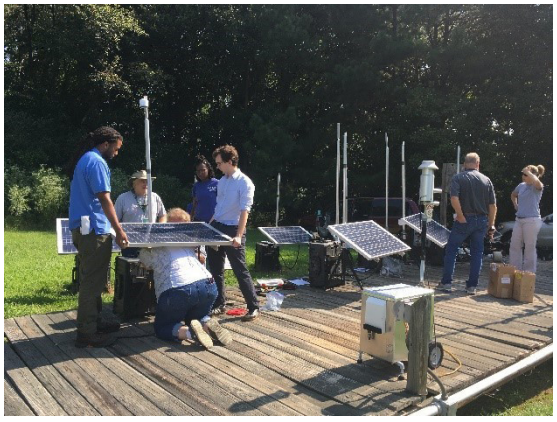
An Atlanta-area SIP revision led to the removal of federal Reid Vapor Pressure requirements, which will help consumers save money at the gas pump.

A North Carolina SIP revision allows for the removal of vehicle inspection and maintenence (I/M) requirements for 26 counties and provides more flexibility for the remaining 22 counties with I/M requirements.

Smoke Summit IV

In February 2019, Region 4 co-hosted the Southeast Prescribed Fire and Smoke Management Summit IV. Now in its seventh year, this biannual meeting of prescribed fire managers, air quality regulatory agencies and others advances prescribed fire smoke management by identifying solutions to meet air quality and prescribed fire goals. The collaborators have substantially increased protection of human health from smoke impacts while meeting the needs of forest managers to use prescribed fire as a means of reducing wildfires and promoting healthy forest ecosystems. This year's Summit was notable because it was the best attended to date and all eight state forestry and air quality agencies were in attendance.

Atlanta Rail & Port Sensor Project



In collaboration with the Georgia Environmental Protection Division (GA EPD) and local stakeholders, Region 4 staff implemented the Atlanta Rail and Port Sensor (RAPS) Project. RAPS is a pilot air monitoring study to evaluate the utility of lower-cost air sensor technology to assess near-source exposure from rail yards and ports. The data will be used as proof of concept for measuring air quality patterns near rail yards, ports or other similar sources with commercially available, lower-cost air sensors. Ten air sensors that measure fine particulates and two meteorological stations were co-located at GA EPD's South DeKalb air monitoring site. Minute-by-minute measurements will produce over four million data values for analysis of local-scale fine particulate matter concentrations.

Rubbertown Next Generation Emission Measurement Demonstration Project

Louisville, Kentucky

This collaborative effort between Region 4, EPA's Office of Research and Development and the Louisville Metro Air Pollution Control District tested Next Generation Emission Measurement technology to provide information regarding fugitive emissions in the Rubbertown area. The project team conducted a year-long demonstration field study of selected technology prototypes developed by EPA researchers and other groups. The data generated will assist in evaluating and improving approaches to help industrial facilities and regulators in minimizing emissions and protecting public health in surrounding communities.

GOAL 1: A CLEANER HEALTHIER ENVIRONMENT

Objective 1.2 Provide for Clean and Safe Water

Water Quality

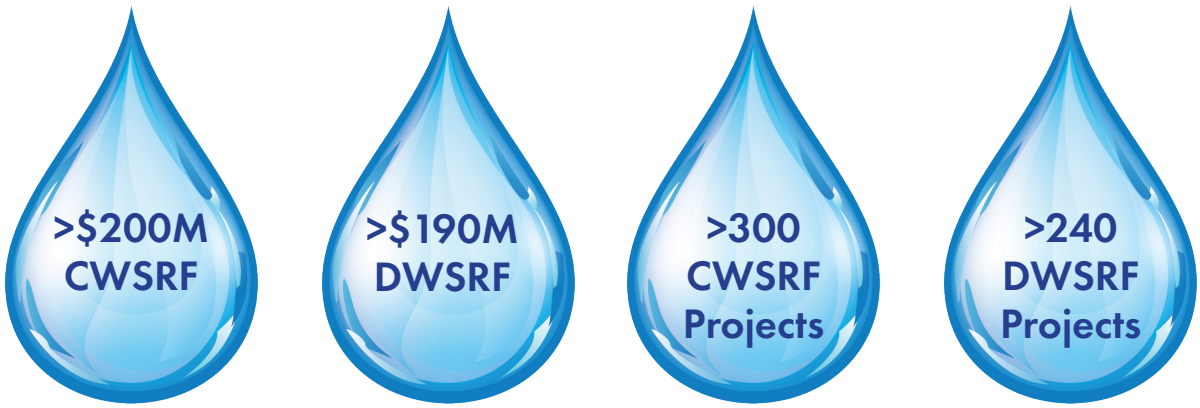
Region 4's unique terrain and geography gives way to ample waterbodies that span across our eight states. Many of these waterbodies are threatened and are experiencing poor water quality, directly impacting the sustainability of the many communities and ecosystems that depend on them.

In 2019, Region 4 approved the first Water Quality Standards (WQS) from the Eastern Band of Cherokee Indians (EBCI). WQS are intended to control pollutants entering waterways and protect water body health. The EBCI's WQS will protect the water quality of 237 miles of streams.

Region 4 also approved 7 WQS submissions to protect 10 lakes across the Southeast. Additionally, Region 4 approved 3 restoration plans and 17 Total Maximum Daily Loads (TMDLs) addressing 239 pollutants and restoring waters in 5 states. A TMDL identifies the maximum amount of a pollutant that a body of water can receive and still meet WQS standard.

State Revolving Fund Infrastructure Improvements

In 2019, EPA awarded over $390 million in new federal grant funding under the Clean Water State Revolving Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF) programs to the eight states in Region 4. The State Revolving Funds require state match, loan repayments and interest that flows back to the funds. This funding can be used for a wide range of drinking water and wastewater infrastructure projects, including modernizing aging service lines, pollution controls, implementing water reuse and recycling, and addressing stormwater. This year, the 8 Region 4 states received requests for 540 projects totaling more than $1.825 billion in potential infrastructure improvements across the Southeast.



319 Grants

Nonpoint sources of pollution continue to be recognized as the nation's largest remaining cause of surface water quality impairments. Nonpoint sources of pollution include agricultural and urban runoff, abandoned mine drainage, failing on-site disposal systems and pollution caused by changes to natural stream channels. It can contribute to problems like harmful algal blooms, erosion and bacteria contamination of surface and groundwater. Through Section 319 of the Clean Water Act, EPA provides states with grant funding to implement their nonpoint source programs and improve water quality. In 2019, Region 4 managed 678 nonpoint source 319 grant projects. This includes $317 million in federal funds – and leveraging $112 million in state and local funds – to achieve nitrogen and phosphorus load reductions of 582,000 and 145,000 lbs per year, respectively. Five states documented restoration and improvement of over 26 miles of impaired waters and 102 square miles of impaired watersheds.

Nutrient Reduction

In 2019, Region 4 continued to reduce nutrient pollution and promote restoration with $539,039 in competitive grant funding to address seagrass and prevent harmful algal blooms (HABs). Three wastewater treatment optimization assessments and two trainings were conducted in Alabama, Georgia and Kentucky this year. Annually, these are expected to reduce nitrogen loads by 19,500 pounds, electricity consumption by 315,000 kilowatt hours and operational costs by at least $48,000. In addition, EPA created the Nutrient Task Force in 2019 through which a toolbox of resources to reduce nutrient pollution is being made available. This includes 46 fact sheets summarizing resources and best management practices from EPA and other federal agencies that can be leveraged.

Reduced electricity usage by 315,000kWh

Reduction of 19,500 lbs

Trash Free Waters Initiative

The world's waters are becoming choked with trash and this causes extensive ecological, human health and economic damage. The EPA Trash Free Waters Initiative is a national program that develops actions and projects that significantly reduce or eliminate the volume of trash, litter and illegally dumped tires entering our watersheds and our aquatic eco-systems.

Regional Highlights

Mississippi Sound

Region 4 and its partners are working together to characterize and reduce the impacts of marine debris in the Mississippi Sound, a priceless recreational and fishing resource along the southern coasts of Alabama and Mississippi. Through an incentive program, the fishing community is being encouraged to properly dispose of marine debris. Additionally, 20 commercial fishing crews are being trained to collect information on marine debris abundance, distribution and economic impact on the commercial fishing industry. In 2019, this partnership resulted in 269 derelict traps recycled from Mississippi Sound.

Proctor Creek Watershed in Atlanta, Georgia

The Proctor Creek Watershed, a historically prominent watershed which primarily serves low-income/ minority populations, has long been a dumping site for trash and tires. The influx of trash and debris is causing poor water quality and contributes to public health issues for the community. In partnership with the Coca Cola Company, the National Recreation and Parks Association, the City of Atlanta, the West Atlanta Watershed Alliance, Groundworks Atlanta and Park Pride, Region 4 implemented a project in 2019 that aims to reduce and eliminate the flow of trash and plastics into the creek. Through education and outreach activities, as well as hands-on projects, this community-driven partnership will provide jobs, clean up the creek and provide information to improve the overall health of the waterway.

GOAL 1: A CLEANER HEALTHIER ENVIRONMENT

Objective 1.3 Revitalize Land and Prevent Contamination

Brownfields

In 2019, the Region 4 Brownfields program continued to lead the nation in several programmatic areas.

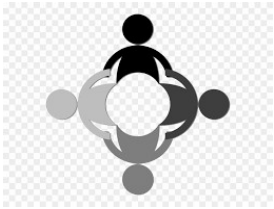
410

The highest number of assessments in the nation; which help determine whether contamination is present at a given site.

1st

First in the nation for returning land for beneficial reuse, exceeding the target by 108%. Such sites present economic development opportunities for communities.

$561M



Region 4 communities leveraged over $561M in public and private investments to assess, cleanup and redevelop Brownfields sites.

1st

Ranked first in the nation four out of the last five years for leveraging, with over $500M leveraged each year.

Brownfields Project Highlights:

In 2019, Region 4 awarded over $7 million in assessment and cleanup funding to 19 communities across the Southeast, followed by an additional $1.2 million under the Brownfields Clean-up Loan Fund program and over $340,000 in environmental job training grants.

Heritage Park in Sanford, Florida

The city of Sanford received a $400,000 Brownfields Assessment grant in 2015 to conduct environmental assessments and develop cleanup plans. Since that time, the city has received an additional $52,000 in funding for assessment and reuse, using this seed money as a catalyst for a major downtown development, Heritage Park. In early 2019, the City broke ground on the $50 million downtown development which included relocating and upgrading stormwater and sanitary sewers and the electrical lines. Heritage Park will be home to a three-block downtown, waterfront live, work and play community.

Food Waste Recovery Efforts

Region 4 is a leader in the sustainable management of food waste. The region has active partnerships throughout the Southeast. In particular, many Atlanta-area organizations are taking actions to minimize or divert food waste.

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

In April, Region 4 again partnered with Second Helpings on Earth Day and rescued 920 pounds of fresh food from local Trader Joe's supermarkets, including fruits, vegetables and salads. The food was diverted from waste to benefit families in need.

Notably, in 2019, Region 4 partnered with a group of key stakeholders to successfully co-host the Georgia Food Paths: Partnering for a Sustainable Food System Summit, which featured a series of open discussions aimed at identifying ways to reach EPA's national food waste reduction goals.

In September, Region 4 was a key participant in the Food Waste Audit at Parkside Elementary School in Atlanta. The audit was conducted using the methods described in the *Guide to Conducting Student Food Waste Audits*, developed by EPA, the U.S. Department of Agriculture and the University of Arkansas. The guide, for students and school personnel concerned about the abundance of food waste generated in cafeterias, provides information on why and how to do a food waste audit, what to do with the data collected, and food waste prevention ideas.

Cleanup and Reuse Planning for the Former Manufacturing Facility in Columbus, Mississippi

Region 4, the Greenfield Multistate Trust and the Mississippi Department of Environmental Quality (MDEQ) continue to work with the City of Columbus and community members on the cleanup of the Kerr-McGee Chemical Corporation Superfund Site (the Site), a 31-acre former manufacturing facility, and plans for reuse. The Multistate Trust, encouraged and supported by EPA and MDEQ, is successfully partnering with local business and stakeholders to implement a fundamentally different model for realizing our shared environmental and economic goals for this undeserved community. A "locals first" approach was adopted for the investigation and cleanup activities at the Site. This cost-effective approach achieves EPA's cleanup goals while using local contractors and resources to maximum extent practicable.

Cleanup efforts at the Site have removed contaminated soil, treated groundwater and addressed stormwater ditches. Surface soil was sampled for dioxins and furans at 40 private properties in 2019, with completion of cleanup anticipated in 2020. In addition, the expedited cleanup of shallow soils at the Site is almost finished and will prepare approximately 20-acres for reuse in 2020. The Site is among EPA's list of 21 Superfund sites nationally with the greatest redevelopment potential, and the Site's Redevelopment Planning Initiative continues to explore options for the future that are community supported, safe, beneficial and sustainable.

Over 110,00 tons of creosote contaminated soil excavated

91 tons of wooden railroad ties removed

361 tons of debris removed

953 tons of brush and stumps removed

Oil Spill Response & Remediation in Shelby, North Carolina

Region 4 led the successful emergency response effort to address an approximate 3,000-gallon discharge of oil in Shelby, North Carolina. The impact of the discharge was exacerbated due to Hurricane Florence's outer rain-bands, and a significant amount of hazardous substances. These substances -- 800 pounds of polychlorinated biphenyls (PCB) waste, 7,425 gallons of PCB oil, 51,000 gallons of hazardous waste -- were identified as a threat to the surrounding community and collected. These efforts ensured the protection of Hickory Creek, a tributary of the Broad River, and the 10 residential properties within proximity of the incident.

2,250
gallons of unused oil collected

300
tons of oil contaminated soil removed

3,575
gallons of contaminated water collected

Supporting Job Training and Cleanup at Former Wood-Treating Site in Jacksonville, Florida

Region 4 works collaboratively with a diverse network of partners - affected communities, states, tribal and local governments, nonprofits, private sector organizations and other federal agencies – to ensure the protection of public health and the environment. In March 2019, 13 community members completed EPA's Superfund Job Training Initiative (SuperJTI) training at the Fairfax Street Wood Treaters site. Through a partnership with Northwest Jacksonville Community Development Corporation, SuperJTI provided local job seekers with new skills which included three certifications in field and safety related courses.

The accelerated cleanup effort resulted in a $7.9 million remedy and successfully achieved six-months ahead of schedule. Region 4 completed the residential portion of the site's cleanup in July 2019. The remaining cleanup activities – removal and disposal of remaining impacted soil, removal of concrete and pavement, and site grading and restoration – were completed in the fall of 2019. Region 4's collaborative efforts with the Florida Department of Environmental Protection ensured the protection of public health for several neighborhoods near the Site.

- **Removal of 60,000 tons of contaminated soil and sediment.**
- **Transport of contaminated materials to an appropriate disposal facility;**
- **60,000 tons of clean backfill and top soil used to restore excavated areas;**
- **Remediation of the 12.5-acre wood treated property and 51 residential properties.**

GOAL 2: MORE EFFECTIVE PARTNERSHIPS

Objective 2.1: Enhanced Shared Accountability

National Estuary Program

EPA's National Estuary Program (NEP) is a non-regulatory program that improves the water, habitats and living resources of 28 estuaries across the country. Each NEP develops and implements a long-term plan, referred to as a Comprehensive Conservation and Management Plan, based on local priorities to guide their efforts. The NEPs involve community members in the decision-making process.

6

Region 4 National Estuary Programs

80,540

Acres restored or protected by Region 4 NEPs

67%

Region 4 restored or protected 67% of all NEP acres

NEP Highlights:

Mobile National Estuary Program

Region 4 funded the Mobile Bay National Estuary Program (MNEP) 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 10 strategically located stormwater outfalls in the Three Mile Creek watershed. MNEP 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. With this information, MNEP is working with partners to implement a trash reduction campaign targeting five businesses determined to be sources of excessive trash and litter.

Mangrove Restoration in Sarasota Bay

Region 4 is funding a unique project with the New College of Florida (NCF) to restore the most extensive intact mangrove habitat on Tidy Island in the Sarasota Bay, an estuary of national significance. These mangroves provide valuable ecosystem services, however, drainage ditches constructed in the past to suppress the mosquito population now harbor exotic woody plants that are impossible to control without altering interconnected terrestrial and marine services. NCF will evaluate how alternative methods for exotic deadwood disposal alter mangrove carbon cycling, fish communities and native revegetation.

EMERGENCY RESPONSE AND SUPPORT ACTIVITIES

Support to State and Tribal Partners:

Responding to natural disasters is a core component of Region 4's response program. During 2019, the region continued to provide critical response support to state partners following Hurricane Dorian, a Category 5 hurricane. Notably, Region 4's vast water and wastewater technical expertise was utilized to conduct infrastructure assessments, as well as to ensure the secure delivery and service of a mobile laboratory, generators, and other equipment and supplies necessary for effective 24-hour mobile laboratory operations.

Region 4's role under Emergency Support Function (ESF) 3 expanded significantly during the hurricane season. Regional staff were embedded at the ESF 3 desks in the state Emergency Response Operation Centers. In addition, regional staff were embedded in the ESF 3 desk in the National Response Coordination Center to assist in the overall federal planning and response – a first for the Region.

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. Initial operations began out of EPA's Regional Emergency Operations Center located in the Atlanta Federal Center in order to service and troubleshoot EPA air monitoring equipment in preparation for the event. Regional staff then integrated into the All Hazards Incident Command (AHIC) at the State Emergency Operations Center in Atlanta where EPA air monitoring data was reviewed remotely and displayed for federal, state and local agencies in the AHIC.

FARMER TO FARMER

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, the Gulf of Mexico Program awarded over $7.5 million to seven recipients in Arkansas, Florida, Iowa and Mississippi. The 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.

Project Highlight: Mississippi State University

Multistate Collaboration to Improve Mississippi River and Gulf of Mexico Water Quality Through Farmer-Led Initiatives and Farmer-Driven Data

This multistate collaborative project will decrease nutrient loss to multiple water bodies within the Mississippi River Basin. Using the robust SERA-46 Cooperative Extension network, members will work directly with farmers to educate and implement Natural Resources Conservation Service and university recommended agricultural conservation practices proven to improve water quality. Farmer-led demonstrations will facilitate information and technology transfer of conservation practices between farmers at multiple scales using a transparent and measurable approach.

AGRICULTURE

Agriculture is ranked as one of the top industries in every Region 4 state and the region continues to build our program by implementing a robust outreach and engagement strategy with agricultural stakeholders. In 2019, Region 4 had meaningful engagements with Agricultural Commissioners, Farm Bureau Presidents, numerous commodity associations, representatives from academia, U.S. Department of Agriculture and producers. As a result of the more direct outreach approach, Region 4 has been prominently featured at several conferences and stakeholder meetings. Moving forward, the region has numerous collaborative opportunities planned for 2020 with our agriculture partners.

Region 4 agricultural products sold range from $3 billion (South Carolina) to $12 billion (North Carolina) with a regional total of $53.3 billion. Over 32% of land in Region 4 is agricultural production, with over 381,100 farms spanning ~75 million acres. The top commodities by market value produced in Region 4 are: poultry/ eggs, livestock (cattle, equine, hogs), crops (vegetables, tobacco, corn, beans, cotton, grains, hay), nursery, greenhouse and aquaculture.

TRAINING

EPA has placed an emphasis on working with state and local partners to improve the effectiveness of environmental programs and better leverage resources. Region 4 and the states increased their focus on collaboration efforts especially in the areas of training and inspector readiness; capacity building for state programs; and community and public engagement. In 2019, Region 4 conducted over 54 trainings reaching over 3,200 external stakeholders (state, federal, community, colleges/universities). In addition, Region 4 developed and hosted 19 Brownfields webinars which reached over 1,400 participants across the Southeast and beyond.

INTERNATIONAL DELEGATIONS

Region 4 maintains strong relationships with our international partners which includes technical and laboratory support, as well as opportunities to address environmental challenges impacting the United States and other countries.

In 2019, the region hosted five international delegations from Brazil, Chile & Colombia, China, Japan and Korea.

The Brazil delegation visit resulted from a Memorandum of Understanding (MOU) between the Brazilian Agency for Water and the U.S. Geological Survey to collaborate on a variety of water quality issues.

The Chile-Colombia delegation visit was part of a two-year capacity building program managed by the Solid Waste Association of North America, under a grant from the U.S. Department of State.

The China and Japan delegation visits are part of the collaborative activities under the existing MOUs between EPA and the two countries.

Various topics were addressed including: water quality, municipal solid waste management, hazardous waste management, financing mechanisms under enforcement requirements of the Clean Water Act and Chemical Safety Management.

GOAL 2: MORE EFFECTIVE PARTNERSHIPS

Objective 2.2: Increase Transparency and Public Participation

COLLEGE/UNDERSERVED COMMUNITY PARTNERSHIP PROGRAM

College/Underserved Community Partnership Program (CUPP), a Region 4 initiative, is a creative approach to delivering technical assistance to small underserved communities in partnership with academic institutions, other federal agencies and state/local governments.

Helping to Address Sewage and Associated Health Issues in the Alabama Black Belt

Through CUPP, Region 4 and the Alabama Department of Public Health, worked with Tuskegee University, the University of South Alabama, Clemson University, the Thriving Earth Exchange and Engineers Without Boarders to develop recommendations to address sewage and its associated health issues in the Alabama Black Belt. The Alabama Black Belt region, with its primarily minority population, is historically known as the home to a rich, dark-soil, which was used to grow cotton. Guided by the principles that the recommendations must work to address the problem and be cost-efficient, the four schools and two nonprofits began working together in the fall of 2018. In 2019, the partners presented final recommendations based on the students' best ideas. The recommendations, approved by the Department of Public Health, are currently being developed as a pilot project for the Alabama Black Belt.

TRIBAL ENGAGEMENT

Strengthening Government to Government Relations

Region 4 continues to foster strong relationships with our six federally-recognized tribes by engaging regularly at both the senior leadership and staff levels. These relationships have been key to supporting the tribes' work with us to advocate for much needed resources to meet tribal environmental needs, tell the stories of their environmental success and streamline processes for improved efficiency and implementation. In 2019, Region 4 engaged with tribal governments at the Regional Tribal Operations Committee meetings, including an executive session with the EPA Region 4 Administrator and Tribal Environmental Directors. Region 4 staff regularly provide technical assistance and participate in informational meetings with the tribes. Additionally, the region helped recognize the 50th Anniversary of the United South and Eastern Tribes' annual meeting, held at the Mississippi Band of Choctaw Indians reservation.

A key component of Region 4's tribal programs is to provide financial assistance to aid environmental planning through the issuance of six tribal Performance Partnership Grants and one direct General Assistance Program grant. Tribes within Region 4 have strong environmental programs which lead to impactful results for tribal members. In 2019, EPA provided over $2.3 million in grant awards to the six Region 4 tribes across a range of EPA programs. These grants will be used to build capacity for environmental programs, improve air quality, provide clean and safe water, revitalize the land, and prevent contamination from pesticides and lead.

ENVIRONMENTAL JUSTICE

Region 4's comprehensive environmental justice (EJ) approach strives to ensure all communities have access to clean air, water and land. Our programming aims to prepare these communities to be strong and healthy.

Environmental Justice Academy

The Environmental Justice Academy (EJA) is the premier leadership development program and curriculum for EJ community leaders. The EJA launched its first class in September 2015 and has graduated over 60 students. Overall, the EJA equips graduates with capacity-building tools they can utilize in their community to comprehensively address the challenges they face. In 2019, Region 4 implemented a pilot-modified approach, which included three days of classroom instruction, five homework webinars and capstone presentations. This approach was successfully tested by Atlanta Metropolitan State College and Tennessee State University.

Appreciative Inquiry Workshop for Port Communities

The Appreciative Inquiry (AI) process has become a widely used and highly successful method of engaging and producing transformative change in many platforms, including communities, business organizations, governments, religious institutions, academia, and non-governmental organizations. In August 2019, Region 4 hosted a one-day AI workshop to support three low-income and minority communities located near the Savannah, Georgia port area: Hudson Hill, West Savannah and Woodville.

A total of 22 participants from these communities learned techniques to better understand current stressors and successful collaborations to better engage one another and build core resilience. Region 4 will use this workshop as a model to engage other communities on alternative methods for implementation of comprehensive planning strategies development.

CHILDREN'S ENVIRONMENTAL HEALTH

Decreasing Lead Exposure in Children in Florida

In 2019, Region 4 worked to implement a lead-based paint program with the Florida Department of Health to reduce lead exposure for vulnerable populations, focusing on communities below the poverty line. Initiated in the fall of 2018, the region has grown the stakeholder group to more than 30 participants representing government, healthcare and education. As part of the initiative, Region 4 hosted a booth at the Fall 2019 back to school Health Expo where they interacted with 2,000 parents and children. Region 4 also held multiple stakeholder meetings and a series of community workshops for families in the Liberty City neighborhood in Miami, where over 62% of children 18 and under live below the poverty line.

Region 4's Asthma Program

Region 4's asthma program is considered one of the model programs across the Agency due to its expansive outreach and prevention strategy. The region maintains strong partnerships with organizations such as the State Asthma Coalitions in Alabama, Florida, Georgia and North Carolina, including serving on the advisory board for the Georgia Asthma Coalition. These relationships with the states allow the program to work on a broad spectrum of projects such as: Boy Scouts outreach during Asthma Awareness Month, Recognizing Asthma Friendly Schools in Georgia and working with the Region 4 Pediatric and Environmental Health Specialty Unit on asthma and healthy homes initiatives. In 2019, with the help of these critical partners and our other regional children's environmental health programs, Region 4 reached over 185,000 children, partnered with 37 school districts and provided awareness and prevention tips to over 4,900 primary caregivers, teachers and medical professionals.

GOAL 3: GREATER CERTAINTY, COMPLIANCE, AND EFFECTIVENESS

Objective 3.1: Compliance with the Law

State Authorization Backlog Reduction

In 2019, Region 4 focused on addressing the large state authorization backlog under the Resource Conservation and Recovery Act (RCRA). RCRA is the federal law that establishes the framework for proper management of solid and hazardous waste. RCRA regulations protect communities by ensuring safe management and cleanup of solid and hazardous waste and encouraging reduction of pollution sources and beneficial reuse of formerly contaminated properties.

Through state authorization, EPA delegates the primary responsibility for implementing RCRA to individual states in lieu of EPA. State RCRA programs must be at least as stringent as federal requirements, but states can adopt more stringent requirements as well. Currently, 50 states and territories have been granted authority to implement the base program. Many are also authorized to implement additional parts of the RCRA program that EPA has since promulgated, such as corrective action and land disposal restrictions. Working closely with state partners, Region 4 successfully authorized six of eight states with updated regulations in 2019:

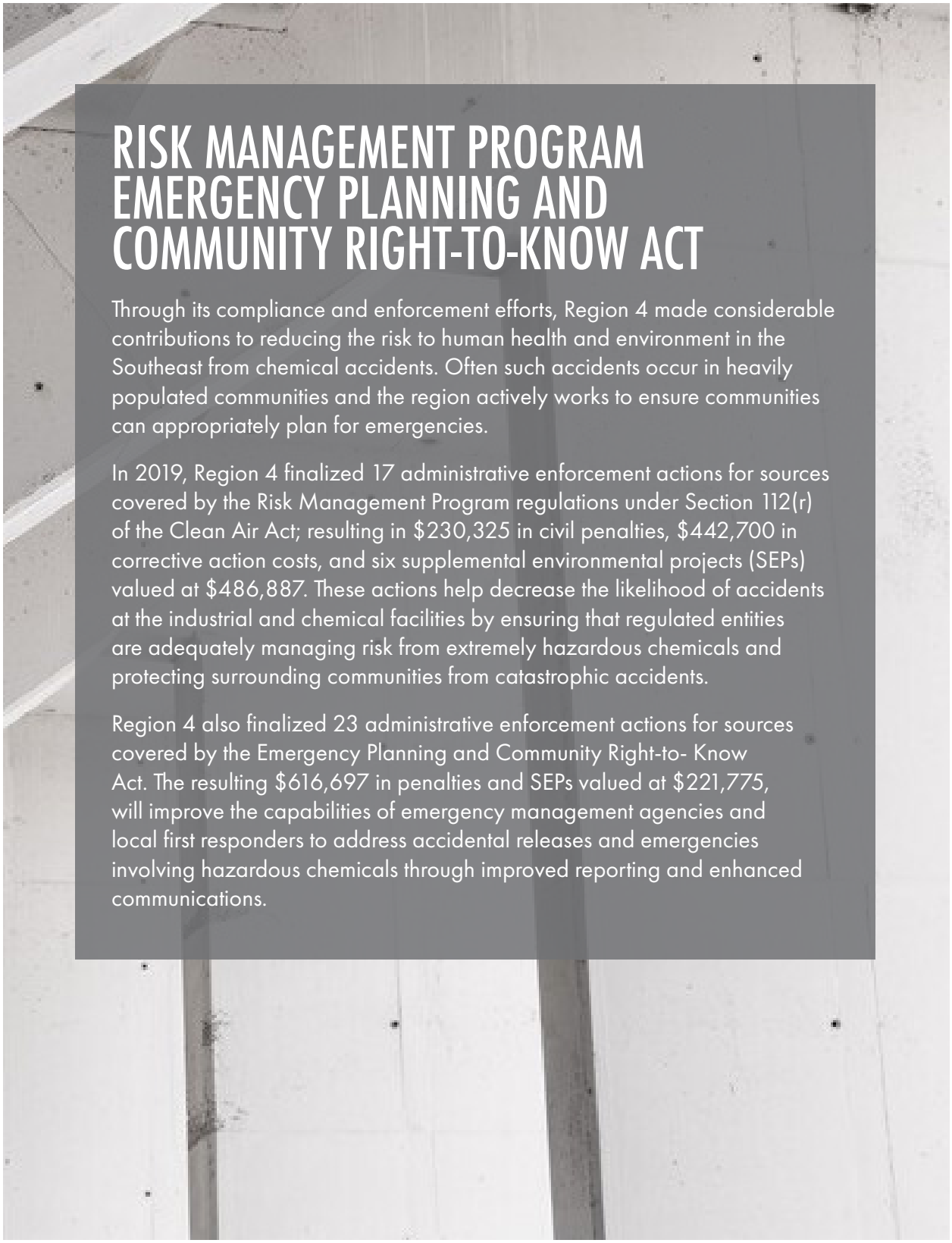
STATE	MOST RECENT UPDATE	PRIOR UPDATE	RESULT
AL	April 19, 2019	May 19, 2017	Authorizes Alabama for 14 federal rules promulgated between July 1, 1991 and June 30, 2017
FL	May 10, 2019	December 8, 2014	Authorize Florida for 16 rules promulgated between July 1, 1991 and June 30, 2017
GA	February 22, 2019	March 27, 2015	Authorizes Georgia for 8 federal rules promulgated between July 1, 2005 and June 30, 2017
KY	April 3, 2019	February 25, 2002	Authorizes the Commonwealth of Kentucky for over 150 federal rules addressing all federal RCRA regulations (and additional state-specific provisions) through June 30, 2017
MS	April 3, 2019	October 3, 2008	Authorizes Mississippi for 24 federal rules promulgated between July1, 2004 and June 30, 2014
NC	October 10, 2019	October 23, 2015	Authorizes North Carolina for 18 federal rules promulgated between July 1, 2004 and June 30, 2017

Nouryon Functional Chemical Settlement in Axis, Alabama

Nouryon is a sulfuric acid plant in Axis, Alabama with nearly two decades of noncompliance which had resulted in increased emissions of sulfuric acid (SO2) and sulfuric acid mist (SAM) in violation of New Source Review provisions of the Clean Air Act. The Consent Decree (CD), filed on September 11, 2019, requires Nouryon to spend approximately $9.2 million on compliance measures that will significantly reduce emissions at the facility. Installation of a peroxide scrubber and implementation of more stringent emission limits has resulted in the facility starting to achieve emissions reductions of 2,340 tons per year (tpy) in SO2 and 40 tpy in SAM. Nouryon was also required to pay a $300,000 civil penalty, of which a portion went to the State of Alabama who joined EPA as a co-plaintiff, and spend $150,000 on an environmental mitigation project that will achieve additional emission reductions in the area. The SO2 and SAM emission reductions from the settlement are the largest SO2 reductions and the largest SAM reductions from a single Region 4 sulfuric acid NSR settlement.

Meridian Consent Decree Meridian, Mississippi

On August 5, 2019, the United States District Court for the Southern District of Mississippi entered a Consent Decree (CD) between the EPA, the Mississippi Department of Environmental Quality and the City of Meridian to resolve violations of the Clean Water Act in its wastewater collection and transmission system, including over 800 sanitary sewer overflows and numerous violations of its National Pollutant Discharge Elimination System permit. Meridian estimates that it will spend approximately $126 million over 19-years to complete the injunctive relief required in the CD. Implementation of the CD is expected to annually reduce more than 7,332 pounds of Total Suspended Solids, 7,018 pounds of biological oxygen demand, 17,566 pounds of total nitrogen and 63 pounds of total phosphorus. The settlement of these violations represents one of the most significant water infrastructure settlements in Region 4.



RISK MANAGEMENT PROGRAM EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT

Through its compliance and enforcement efforts, Region 4 made considerable contributions to reducing the risk to human health and environment in the Southeast from chemical accidents. Often such accidents occur in heavily populated communities and the region actively works to ensure communities can appropriately plan for emergencies.

In 2019, Region 4 finalized 17 administrative enforcement actions for sources covered by the Risk Management Program regulations under Section 112(r) of the Clean Air Act; resulting in $230,325 in civil penalties, $442,700 in corrective action costs, and six supplemental environmental projects (SEPs) valued at $486,887. These actions help decrease the likelihood of accidents at the industrial and chemical facilities by ensuring that regulated entities are adequately managing risk from extremely hazardous chemicals and protecting surrounding communities from catastrophic accidents.

Region 4 also finalized 23 administrative enforcement actions for sources covered by the Emergency Planning and Community Right-to- Know Act. The resulting $616,697 in penalties and SEPs valued at $221,775, will improve the capabilities of emergency management agencies and local first responders to address accidental releases and emergencies involving hazardous chemicals through improved reporting and enhanced communications.

GOAL 3: GREATER CERTAINTY, COMPLIANCE, AND EFFECTIVENESS

Objective: 3.2: Create Consistency and Certainty

Objective 3.3: Prioritize Robust Science

Objective 3.4 Streamline and Modernize

Emerging Contaminants

Region 4's laboratory is one of the few EPA laboratories that is accredited under the International Organization for Standardization for all environmental media and analyzes over 6,000 samples annually. Our 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. In 2019, Region 4 offered increased assistance to several states in analyzing samples for emerging contaminants, including per- and polyfluoroalkyl substances (PFAS) and ethylene oxide.

" We are moving forward with several important actions, including the maximum contaminant level process, that will help affected communities better monitor, detect, and address PFAS."

-- EPA Administrator, Andrew Wheeler

FIELD SAMPLING AND ANALYTICAL SUPPORT

The Region 4 laboratory provides laboratory analytical support and field services for the region's media and enforcement programs. A few notable highlights include:

Ambient water/sediment sampling, effluent sampling and contractor sampling oversight/technical support

Support to regional programs to identify sources of per- and polyfluoroalkyl substances (PFAS) in Lake Weiss which ultimately serves as a source of drinking water for the cities of Gadsden and Centre in Alabama.

Comprehensive sampling of both water and sediment in the Coosa Basin from Looper's Bend to near the Alabama and Georgia state line.

Support to Region 4 states on ethylene oxide sampling analyses.

Environmental monitoring for PFAS is becoming increasingly requested at Superfund remedial and removal sites. To address this increasing demand for analytical support for PFAS, the Region 4 laboratory is involved in a cross-EPA workgroup on method validation and exposure focused on developing multi-laboratory validated methods for water samples other than drinking water (surface, ground and waste water) for 24 PFAS compounds. To further meet the demand for PFAS support, the Region 4 laboratory has developed the capability to analyze soils and sediments as part of the routine analysis.

LOOKING FORWARD: 2020

This report documents EPA Region 4's many successes in 2019 to protect and restore the environment across the Southeast. In honor of 50 years of environmental protection, over the next year, EPA will commemorate the agency's many achievements and continued progress, culminating in a 50th anniversary celebration on December 2, 2020. EPA's 50th anniversary themes is: "EPA at 50: Progress for a Stronger Future."

EPA was established on December 2, 1970, to consolidate into one agency a variety of federal environmental responsibilities including research, monitoring, standard setting, and enforcement activities to ensure environmental protection while simultaneously safeguarding human health. The agency's first administrator, the late William Ruckelshaus, took the oath of office on December 4, 1970.

For more on EPA's 50th anniversary, visit: www.epa.gov/50. You can also follow EPA's 50th Anniversary celebration on social media using #EPAat50.

www.epa.gov/aboutepa/about-epa-region-4-southeast