



EPA

REGION 7
2019
Year in Review



Protecting Human Health and the Environment

Serving Iowa, Kansas, Missouri, Nebraska, and Nine Tribal Nations



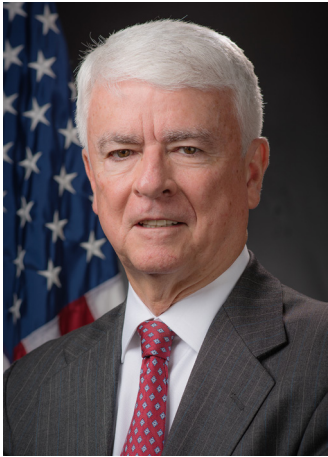
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EPA Region 7 protects human health and the environment in our nation's Heartland. Our ecosystems are numerous and the range is broad, encompassing the Sandhills of Nebraska, Flint Hills of Kansas, winding Missouri and Mississippi rivers, prairies and plains of Iowa, forests and delta of Missouri, and an abundance of agricultural lands throughout our region.

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As we close out the decade and head into the 50th anniversary year of the U.S. Environmental Protection Agency, I am honored to represent the EPA Region 7 team and recognize their achievements in supporting our four-state region of Kansas, Missouri, Iowa and Nebraska, and nine tribal nations.

Region 7 is often referred to as the Heartland, which I think is an accurate reflection of the states we serve. The communities here feed American families, provide cleaner energy sources and manufacture the materials needed to fuel the economy of this country.

The Heartland represents resilience, hard work, togetherness, grit and environmental stewardship. Not only do the communities we serve exemplify these qualities, so does the Region 7 team. Whether responding to floods or developing new scientific technologies, the dedicated team here is always looking for opportunities to better serve and work collaboratively with our partners and communities.

The achievements highlighted in the Region 7 2019 Year in Review are only a snapshot of how EPA Region 7 is working for you and Heartland communities to protect public health and the environment. We are most successful when federal, state and community partners work together to meet the mission of cleaner air, water and land. I am confident that we can accomplish even more by continuing to work together in the years ahead.

Thank you to the EPA team and our partners for a successful year!

– Jim

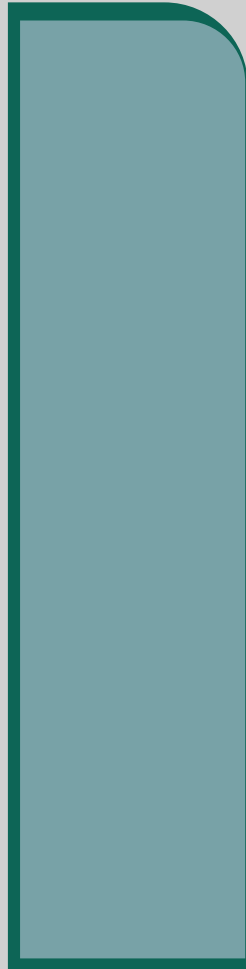




FUNDING

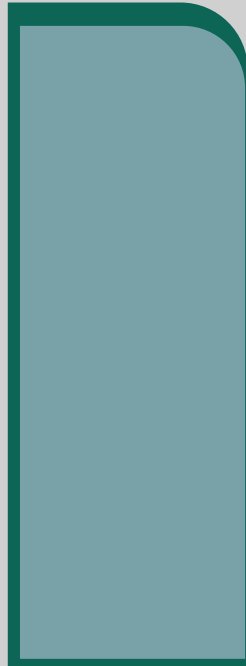
2019 FUNDING

Missouri



\$86,459,829

Iowa



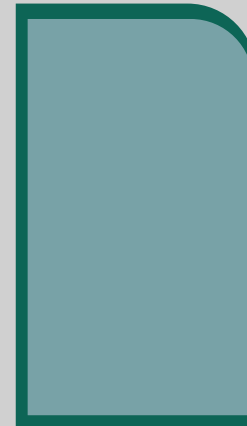
\$54,460,284

Kansas



\$42,734,603

Nebraska



\$35,161,125*

Tribes



\$2,992,558

EPA Region 7 provided \$221,808,399 to states, tribes and others across the Heartland.

*Includes \$92,410 funding awarded to Oklahoma State University for wetland work being performed in Nebraska



Violations of Community Water Systems Decrease

Region 7's Water and Enforcement & Compliance Assurance divisions, in partnership with the region's four states, reached a significant achievement this year: the national goal of a 25% reduction in community water systems with health-based violations (compared to third quarter 2017 baseline data).

This reduction is a result of significant data quality improvement and violation trend evaluation. Region 7 worked with states as they changed procedures to focus on such trends. Approximately 50,000 regulated drinking water systems serve water to the same people year-round, referred to as Community Water Systems (CWSs). In fiscal year 2018, 40% of the nation's

CWSs violated at least one drinking water standard. In addition, there were monitoring and reporting violations at more than 30% of CWSs and health-based violations at 7% of them.

From the beginning of this administration, a tremendous focus has been placed on improving the quality of water being delivered by drinking water systems throughout the United States. In its five-year strategic plan, EPA established an aggressive goal of reducing the number of Community Water Systems out of compliance with health-based standards by 25% (from 3,600 to 2,700).



Safe drinking water is critical to our nation's public health and economic vitality. By reducing the number of Community Water Systems with violations, EPA is delivering on its mission of protecting public health and the environment, and providing all Americans access to clean drinking water.

Region 7 Lab Partners With Scientists to Protect Drinking Water



EPA Region 7, the EPA Technical Support Center in Cincinnati, and the Kansas Department of Health and Environment (KDHE) worked together to assist drinking water utilities in identifying disinfection by-product (DBP) formation in their water systems.

EPA and KDHE conducted sampling at three cities in Kansas (Herington, Hillsboro and Burlington) as a follow-up to a larger study and a series of compliance assistance efforts to help those utilities with DBP formation identification in their water systems.

DBPs are an unintended consequence of using chemical disinfectants to kill harmful

pathogens in water. DBPs are formed when disinfectants used in water treatment react with natural organic matter (i.e., decaying vegetation) present in the source water or distribution system. At elevated levels, it can be harmful to public health.

The goal of the study was to generate data that can help water utilities identify potential process changes that may lower the DBPs formed at the treatment plant and in the water delivered to customers and consecutive public water systems.

The team measured different water quality parameters to identify DBP formation and identified recommendations to the water utilities on how they could lower DBP

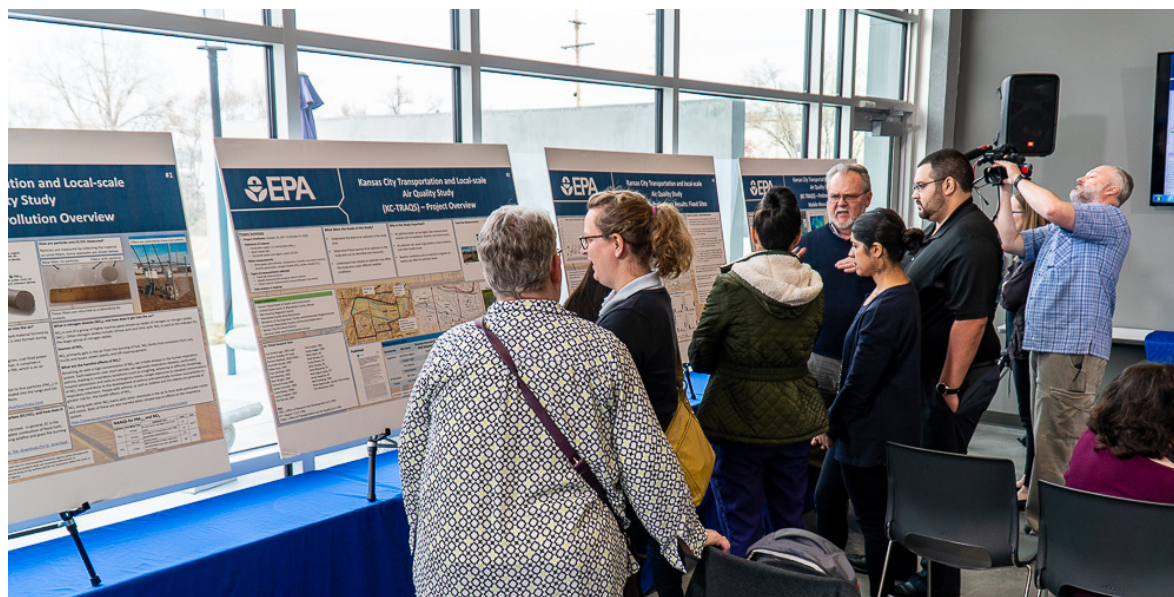
levels in their systems. Recommendations included delaying water disinfection in the treatment process; using an alternative oxidant, instead of chlorine, to treat the raw water; implementing process control for chloramine treatment by measuring free chlorine, free ammonia, monochloramine and total chlorine; and maintaining an appropriate chlorine to ammonia ratio.

By working collaboratively with our state and local community partners, and utilizing the latest science, EPA Region 7 delivers on its commitment to ensure clean drinking water.

KC-TRAQS

Air Monitoring in Kansas City, Kansas

In 2017, EPA worked with community members in the Turner, Argentine and Armourdale neighborhoods in southeast Wyandotte County, Kansas, to launch KC-TRAQS, a one-year air monitoring study. This area is located in the Kansas River Valley and has unique meteorological conditions referred to as inversions, which can trap pollutants close to the ground. The area is also surrounded by major highways, industry, and two rail yards. KC-TRAQS stands for the Kansas City Transportation and Local-Scale Air Quality Study. EPA Region 7's Laboratory Services and Air Division scientists and EPA's Office of Research and Development partnered with community members to launch the project. To gather air data throughout the year, EPA used an electric car outfitted with an air monitor and six stationary monitors. Local teachers and students used handheld monitors called "AirMappers." At a community event in November 2019, EPA was happy to report that air quality in the neighborhoods was well within EPA's national ambient air quality standards.



Region 7 Works to Increase Certainty and Compliance in Indian Country

In 2019, EPA Region 7 focused efforts on those statutes where EPA is the primary and sole regulator (i.e., the rules EPA has not or cannot delegate to another governmental entity). We focused on direct implementation, particularly for the Tribal Minor New Source Review air program in Indian country. In fiscal year 2019, we issued minor source air permits in Indian country for two municipal power plants and one casino-hotel.

The minor source permits place enforceable restrictions on the potential to emit of the existing operations at the facilities, so that the provisions and requirements for major sources do not apply.

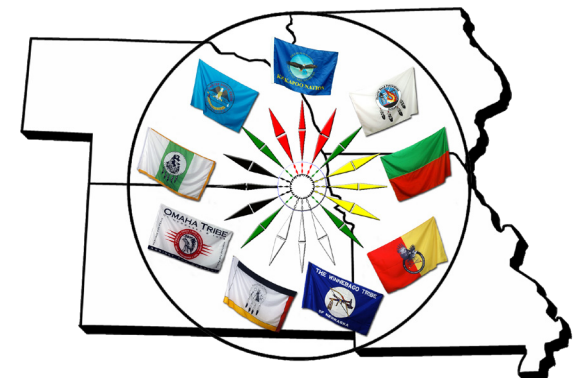
Additionally, the Meskwaki Nation applied to EPA for Treatment in a Similar Manner as a State (TAS) for the Clean Water Act Section 303(c) Water Quality Standards and 401 Certification programs for all currently held Tribal trust lands. After carefully reviewing the Tribe's application, EPA determined that the Meskwaki Nation met the necessary requirements and approved their application for TAS to administer these programs. The Meskwaki Nation is the first tribe in Region 7 to receive the authority to administer the Clean Water Act's water quality standards and certification programs.

Both projects involved coordination and



consultation with state and tribal partners, and it exemplifies Region 7's efforts to accomplish a fiscal year 2018-2022 Strategic Plan objective of increasing certainty, compliance and effectiveness by applying the rule of law to achieve more efficient and effective agency operations, service delivery, and regulatory relief.

Empowering tribal nations to administer Clean Water Act programs on tribal lands is consistent with recognizing tribal sovereignty and sets an example for other tribal nations to follow.



EPA Awards \$474,884 to Nebraska to Reduce Diesel Emissions

EPA provided a total of \$474,884 in Diesel Emissions Reduction Act (DERA) funding to Nebraska in fiscal year 2019. The grant funds are used to replace diesel trucks owned by local governments. The state is also looking to award sub-grants to replace diesel engines powering agricultural irrigation pumps.

Announced in 2019, EPA also awarded \$100,000 to replace five, older diesel school buses in Nebraska for schools in Hayes Center, Tecumseh, Palmer and Big Springs.

“Children’s health is a top priority for EPA, and these grants will help provide cleaner air and a healthier ride to and from school for America’s children,” said EPA Administrator Andrew Wheeler. “This DERA funding reflects our broader children’s health agenda and

commitment to ensure all children can live, learn and play in healthy and clean environments.”

Exposure to diesel exhaust can lead to serious health conditions like asthma and respiratory illnesses and can worsen existing heart and lung disease, especially in children and the elderly. These conditions can result in increased numbers of emergency room visits, hospital admissions, absences from work and school, and premature deaths.

As a result of EPA regulations, diesel engines manufactured today are cleaner than ever before. But because diesel engines can operate for 30 years or more, millions of older, dirtier



engines are still in use. Reducing exposure to diesel exhaust from these engines is especially important for human health and the environment. EPA offers funding for projects that reduce diesel emissions from existing engines.

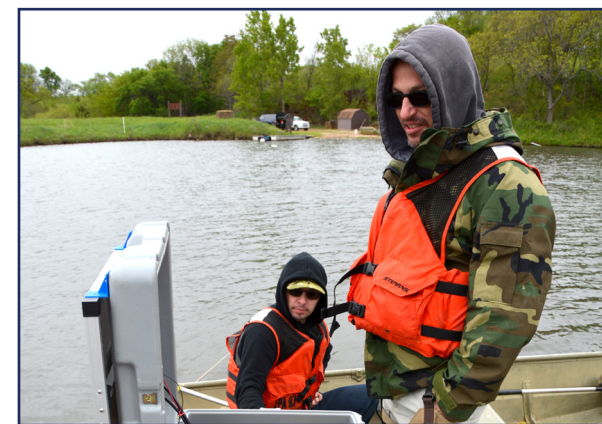
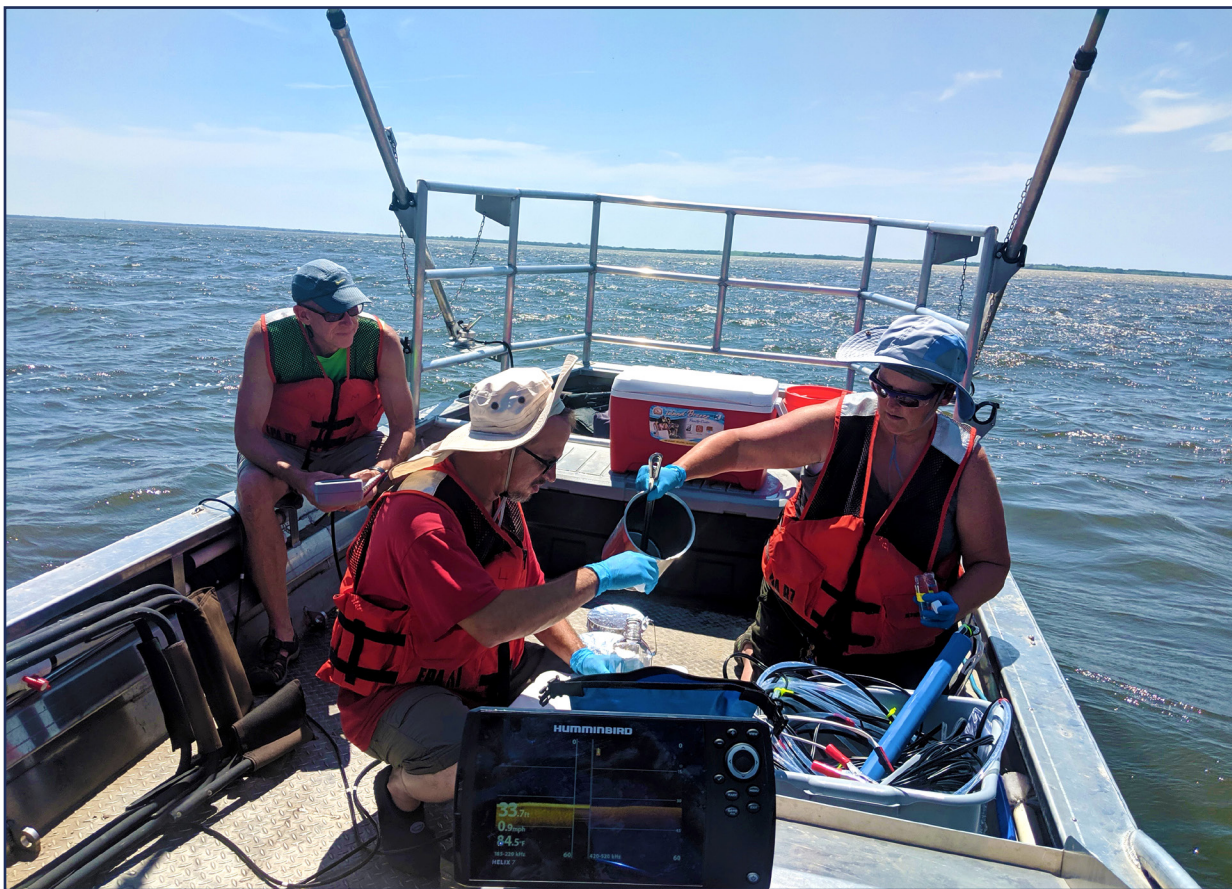
Heartland Region Delivers on Clean Air Act Compliance



Some of this year’s enforcement actions included:

- An Atchison, Kansas, Company Agrees to Pay \$1 million for Violating Clean Air Act (112r): <https://go.usa.gov/xpVWM>
- Harcros Chemicals Inc. of Kansas City, Kansas, to Pay Civil Penalty and Pay for Project to Reduce Isopropyl Alcohol Releases Into Environment: <https://go.usa.gov/xpVWp>
- EPA Announces Settlements to Address Alleged Violations of Chemical Accident Prevention Requirements by Two Companies in Iowa and Nebraska: <https://go.usa.gov/xpVWN>
- Omaha/Council Bluffs Area Gas Stations, Owned by Mega Saver and Tobacco and Phones 4 Less, Agree to Upgrade Spill Monitoring and Alarm Systems: <https://go.usa.gov/xpVW7>

Enforcement actions taken against violators of the Clean Air Act deter those companies from being repeat offenders and encourage other companies in the industry to remain in compliance.



EPA Scientists Partner With University of Kansas to Improve HAB Monitoring

EPA Region 7 scientists partnered with researchers from the University of Kansas to test two, new harmful algal blooms (HAB) monitoring technologies. One device developed by EPA Region 7 staff is a lake profiler nicknamed “STEPH,” which stands for Sampling Technology to Evaluate and Profile HABs. The device lowers a water quality meter into the lake and takes measurements at each interval, allowing researchers to monitor the position of cyanobacteria in the water column.

The second device has been loaned to the team

by researchers at EPA’s Office of Research and Development (ORD). It’s called the “WIZ,” which is short for Water Insitu analyzer. This device analyzes nitrate, nitrite and phosphate in the water on-site and sends the data to a website for retrieval and analysis.

Both devices were deployed on Cross Reservoir in Kansas at the field station for testing in 2019 and they’ll be mounted on platforms to deploy in Milford Lake in 2020 as part of a multiyear project with ORD, in cooperation with the Kansas Department of Health

and Environment. The emergence of HABs as a threat to recreational waters presents a new and urgent challenge for EPA to address.

By identifying water quality conditions that contribute to harmful algal blooms, EPA and university research scientists can evaluate and prepare strategies to mitigate impacts from HABs.



LAND REVITALIZATION

Former Lead, Cobalt Mine Reuse Brings Jobs Back to Southeast Missouri



Region 7 leveraged inclusion of the Madison County Mines Superfund Site on the EPA Administrator's Emphasis List to motivate the responsible party agreement to conduct removal activities and facilitate reuse of the Anschutz portion of the site, an abandoned lead and cobalt mine in rural Missouri.

The Madison County Anschutz Mine was placed on the Emphasis List to promote the timely implementation of a property-wide cleanup of historical, surficial mine waste contamination proposed by the new owners, which will also allow for the beneficial reuse of the property and potentially create significant economic benefit for the local community.

“Reopening the mine represents a tremendous economic opportunity for the Fredericktown community,” said EPA Region 7 Administrator Jim Gulliford. “The property owners’ efforts to restore mining operations and clean up the mine demonstrate how economic and environmental revitalization go hand-in-hand.”

The new property owners intend to reopen the former cobalt mine, which could employ hundreds of residents. EPA and the new owners signed an Administrative Settlement Agreement and Order on Consent to conduct the work.





EPA Land Revitalization Technical Assistance Helps Redevelopment in St. Louis County



Five years after the Ferguson crisis dominated the news, EPA continues to work with local groups to revitalize neighboring Dellwood, Missouri, where eight buildings were among those destroyed by arson fires along the West Florissant Avenue corridor.

In August 2019, the St. Louis Urban League issued a news release announcing their initiative for a shopping center on two of the four targeted redevelopment sites along the West Florissant Avenue corridor. These plans include a full-service bank, restaurant and banquet facility, and business incubator for minority-owned business and services (an EPA recommendation) to be built where an auto parts store and clothing boutique once stood in Dellwood.

EPA is leading this and other EPA projects in

St. Louis County neighborhoods, following a November 2016 request to EPA by the St. Louis Economic Development Partnership (SLEDP) and the city of Dellwood for assistance to redevelop sites destroyed by arson. This assistance created redevelopment plans that included conceptual site designs, renderings, and a retail market analysis. One of the recommendations of the market analysis was to develop a business incubator focusing on commercial kitchens.

“St. Louis Economic Development Partnership has fostered a great relationship with EPA Region 7 over the last three years. The work of EPA has been a game changer for communities affected by the 2014-2015 civil unrest in the St. Louis region,” said Cordaryl Patrick with SLEDP. “EPA has been a cata-

lyst for new intentional development in our most distressed communities of Dellwood, Ferguson and Jennings along West Florissant Avenue.”

Redevelopment along West Florissant Avenue is an example of how federal assistance can be leveraged to bring additional economic opportunities to heartland communities, and EPA’s commitment to the revitalization of contaminated properties.



Region 7 Helps Revitalize St. Louis Site, Bringing 3,000 New Jobs to the City

In fall 2019, the National Geospatial-Intelligence Agency (NGA) broke ground on its new \$1.7 billion western headquarters in St. Louis. EPA Region 7's role in readying the current site for reuse began in 2015.

Before NGA had selected the site, the city of St. Louis requested assistance from EPA with Phase I and Phase II environmental assessments. The city wanted to understand the site's environmental condition before purchasing the land, comprising more than 500 parcels, which could be used to house the new location for NGA.

Region 7 coordinated the Phase I assessment with the city and the Missouri Department of Natural Resources (MDNR) and conducted the Phase II assessment through EPA's Targeted Brownfield Assessment Program. Region 7 completed the Phase II assessment of the site in seven months, including ground penetrating radar, soil and groundwater samples, and over 5,000 asbestos-containing material samples. Following the assessments, the city acquired the properties and enrolled the site into MDNR's Brownfields/Voluntary Cleanup Program.

Region 7 played a crucial role in negotiations between the city, MDNR, U.S. Army Corps of Engineers, U.S. Air Force and NGA, seeking to address concerns about remediation and reuse. EPA's involvement provided assurance to all parties that federal and state environmental regulations were being met and future redevelopment could occur at the site.

Remediation of the site concluded in fall 2018. The project included the removal of approximately 1 million tons of soil and pavement, 13 miles of overhead lines, 20 underground storage tanks, and 137 structures. The top three feet of soil was removed site-wide, and in several locations, it was removed down to the bedrock. Over 37,000 linear feet of marble curbs were removed and will be reused during site redevelopment. Over 5,800 environmental samples were analyzed during the remediation.

NGA will employ more than 3,000 federal employees at the site and its construction is estimated to create 5,200 construction jobs.

The NGA project exemplifies what can be accomplished when federal, state and city officials work together to revitalize and reuse formerly contaminated lands, while supporting economic development.



EPA Brownfields Funding Sparks New Growth in Earlville, Iowa

For years, the remnants of an old, vacant car dealership had been an eyesore in the town of Earlville, Iowa. The visionary leadership of the Earlville mayor and city clerk saw a minimal \$22,000 federal EPA investment in assessment and cleanup leverage almost a half-million dollars to redevelop the property.

The East Central Intergovernmental Association performed Phase I and Phase II environmental assessments and asbestos-containing materials investigations at the property, on behalf of the city of Earlville using its Brownfields Assessment Coalition CERCLA 104(k) funding. The Iowa Department of Natural Resources (IDNR) funded a sub-award to share the cost of abating



the asbestos using CERCLA 128(a) funding. IDNR further funded the redevelopment through state grants, including an award for deconstruction and diverting more than 90% of the demolition materials from landfills and Iowa Economic Development Authority tax credits.

After a little over 14 months of construction, with partnerships from the East Central Intergovernmental Association, EPA, U.S. Department of Transportation, IDNR, Iowa Economic Development Authority, and city of



Earlville, the Regional Transit Authority (RTA) bus storage facility opened in September 2019. The project cost around \$420,000.

This facility helped centralize the RTA fleet, protecting vehicles from the elements and vandals; expanding their service to 12 communities in the three-county area; and providing much needed transportation to the elderly, disabled, and those without transportation.

Four Region 7 Communities Receive Environmental Job Training Grants

EPA selected multiple communities, including Kansas City, Kansas; and Bridgeton, Kansas City, and Springfield in Missouri; for Environmental Workforce Development and Job Training grants in 2019. These grants help to create a skilled workforce in communities where EPA brownfields assessment and cleanup activities are taking place.

Combined funding for these grants will support the enrollment of hundreds of trainees in their programs, with a goal of placing program gradu-

ates into the local job market in specialized environmental positions where they can contribute to cleanup efforts throughout local areas. Participants will receive certification in a range of environmental fields to include hazardous waste operations and emergency response; lead renovation, repair and painting; lead and asbestos abatement; and shipping, handling and storage of hazardous substances.

EPA's Job Training Program awards competitive grants to nonprofit organizations and other eligible entities to re-

cruit, train and place unemployed and underemployed individuals. Individuals completing these training programs have often overcome a variety of barriers to employment. Many are from low-income neighborhoods. The training program also serves minorities, tribal members, transitioning veterans, dislocated workers who have lost their jobs as a result of manufacturing plant closures, and other individuals.

EPA Celebrates Sustainable Reuse of KC Superfund Site With Community Partners

In September 2019, EPA Region 7 presented its Leading Environmentalism and Forwarding Sustainability (L.E.A.F.S.) Award to the city of North Kansas City and Rio Tinto AuM Company in recognition of responsible site reuse through innovative thinking, sustainable practices and environmental stewardship. EPA Region 7 also recognized the Missouri Department of Natural Resources for their partnership at the site.

The Armour Road Superfund Site in North Kansas City has an area of 4.6 square miles and approximately 4,400 residents. The site is a former industrial area that housed an herbicide mixing facility for over 60 years, which resulted in arsenic contamination in soil and groundwater. Since 1996, several actions have been completed by EPA and the responsible parties to clean up arsenic contamination at the site and

dispose of contaminated soil.

The completed cleanup actions allowed for redevelopment of the site property and the surrounding areas from a light industrial area to a mixed-use urban development area in the heart of Kansas City. The site property is now the location for a new restaurant and serves as part of a new mixed used urban center with retail, medical, and residential buildings.

For over three decades, EPA's Superfund program and its partners have remediated contaminated hazardous waste sites and furthered community goals for reuse. As of 2018, there were over 700 non-federal facility Superfund sites in new or continued use. At 529 of those sites, 8,690 businesses employ over 195,000 people, providing about \$13 billion in annual employment income. In 2018, those businesses generated over \$52 billion in estimated annual sales revenue.

Superfund Remediation and Reuse in Action



Ace Services

Colby, Kansas

The 2.5-acre Ace Services Site is a former chrome plating facility in Colby, Kansas, where chrome plating was applied to farm implement parts. Added to the National Priorities List in 1995, the site is now available for reuse and redevelopment.



Annapolis Lead Mine

Annapolis, Missouri

Lead mining activities from 1919 to 1940 generated over 1 million tons of mining wastes, contaminating soils and sediments with heavy metals, primarily lead. The site was placed on the National Priorities List in 2004. In 2019, EPA Region 7 determined that the 900 acres of the former mining site are ready for reuse and redevelopment.



Missouri Electric Works

Cape Girardeau, Missouri

The Missouri Electric Works Superfund Site consists of soil and groundwater impacted by polychlorinated biphenyls, or PCBs, related to servicing and remanufacturing electric equipment. The site property is 6.4 acres located adjacent to U.S. Highway 61 (South Kings Highway) in Cape Girardeau, Missouri. In fall 2019, Region 7 determined that the site is ready for reuse and redevelopment, following a final remedy selection in 2018.





LEAD ACTION PLAN

Council Bluffs Meets New National Air Quality Standards for Lead



In 2008, after EPA revised U.S. National Ambient Air Quality Standards for lead (Pb), two sources in Council Bluffs, Iowa, were identified as exceeding the new standard. Together, Council Bluffs, the Iowa Department of Natural Resources, and EPA Region 7 worked on a path forward to reduce these emissions.

By early 2011, the city had seen significant reductions of lead emissions. That downward trend continues today. Based on this success, EPA was able to designate Council Bluffs as "in attainment" for fiscal year 2019, becoming the first area in the region to be redesignated for the revised lead standard.

To protect public health and the environment, the Clean Air Act requires EPA to set National Ambient Air Quality Standards for six common pollutants, including lead. Air quality monitors located across the country measure how much lead is in the outside air.

EPA uses the monitoring data to determine which areas are not meeting the national lead standards. If an area continues to have air pollution levels greater than the standards, it may be designated as "nonattainment."

Lead in the air is a problem not only because people may breathe it in, but also because people can swallow lead dust that has settled onto surfaces like soil, dust and water. Lead in soil and dust stays around for many years because it does not decay or decompose. Lead is particularly dangerous to children because their growing bodies absorb more lead than adults do and their brains and nervous systems are more sensitive to the damaging effects of lead.

The actions by Council Bluffs to reduce lead emissions will directly help minimize lead exposure and ensure cleaner air for its residents.



Region 7 Superfund Remediates 38.3 Million Cubic Yards of Lead- Contaminated Soil

Lead is a primary contaminant of concern at many Superfund Sites in Region 7, as a result of historic and ongoing lead mining and ore processing in Missouri, Kansas and Nebraska. Significant progress has been made to address human health and ecological impacts at lead-contaminated residential properties.

In fiscal year 2019, EPA Region 7 remediated an estimated 173,168 cubic yards of lead-contaminated soil at 746 residences across 11 Superfund sites, bringing the total for all years to 4 million cubic yards of contaminated soil

at over 25,000 residences.

In addition, Region 7 remediated 1.2 million cubic yards of mine waste on 324 acres in fiscal year 2019, bringing the total for all years to over 38.3 million cubic yards and 10,500 acres.

Several lead remediation pilot studies are underway in the Region. A passive stream sediment trap and overbank deposit channel effort in the Big River (Missouri) resulted



in the removal of approximately 3,720 cubic yards of contaminated river and overbank sediment, bringing the total for all years to nearly 17,000 cubic yards.



Omaha Superfund Site

A Closer Look: How Superfund Lead Cleanups Benefit Children's Health

Since the cleanup began at the Madison County Mines Superfund Site near Fredericktown, Missouri, EPA has completed the remediation of over 626,000 cubic yards of soil at more than 1,900 residential properties, in addition to cleaning up approximately 87 acres of mine waste. EPA's response actions have resulted in a significant reduction of elevated blood lead levels in children tested throughout Madison County, where the percentage has dropped from around 27% in 1996 to less than 2% today.

In addition, EPA has been performing a partial deletion process of Omaha Lead Superfund Site residential properties from the National Priorities List (NPL) following remediation. In 2019, EPA removed 500 remediated properties from the NPL listing from those that qualify for

cleanup under the current Record of Decision (May 2009), bringing the total number of properties removed from the NPL listing to 1,549 remediated properties. To date, EPA and local government partners have sampled soil at more than 45,000 residential properties in Omaha and addressed lead contamination at more than 13,000 residential properties that qualified for cleanup.

Since EPA first began cleanup activities in Omaha in 1999, the rate of childhood blood lead level exceedance of the 10 ug/dL "level of concern" in children assessed within the Omaha Lead Site boundaries has dropped from over 25% to 0.08% (eight exceedances of 9,659 children sampled from January through September 2019).

ST. JOSEPH, MISSOURI LEAD INITIATIVE CAMPAIGN

Outreach Activities

20 Targeted Outreach
Lead Safety
Educational Events

38 Achieved Outreach
Lead Safety
Educational Events



Community Reached

Targeted Reach of
50,000
Individuals

Achieved Reach of
58,027
Individuals



Lead-Certified Renovators

50%
Increase in Lead
Certified Renovators



Protecting Children from Lead-Based Paint Dust in St. Joseph, Missouri



For the past two years, Region 7 has partnered with various community groups and organizations in St. Joseph, Missouri, to educate parents, children under 6 years of age, homeowners and educators about lead paint dust hazards and prevention as part of a geographic initiative.

Region 7 reached 56,027 people (target of 50,000) through its outreach efforts, conducting 35 outreach activities (target of 20); increasing the number of lead-certified renovators by 50%; decreasing the non-compliance rate of inspections from 38% to 20%; meeting with day cares in target ZIP codes; and culminating with a Halloween family and blood lead level (BLL) screening event in 2019.

A 2016 Reuters article on lead alerted the public of the lead hazards in older homes in St. Jo-

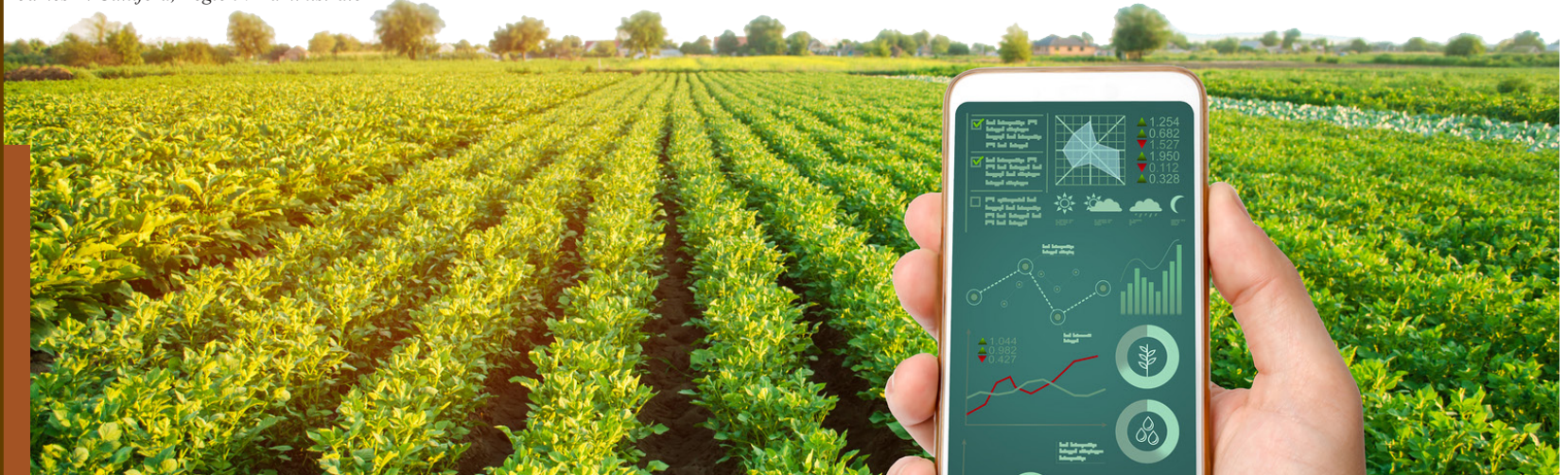
seph. If your home was built before 1978, there is a good chance it has lead-based paint. From 2010 to 2015, more than 15% of children tested in seven census tracts had elevated blood lead levels, which was likely attributed to lead paint in older homes in the St. Joseph area. For comparison, Missouri averaged 5% of children tested with elevated levels across the state.

Reducing childhood lead exposures is a national and regional priority for EPA. The most important step that parents, doctors and others can take is to prevent lead exposure before it occurs. Exposure to lead can seriously harm a child's health, including damage to the brain and nervous system, slowed growth and development, learning and behavior problems, and hearing and speech problems. No safe blood lead level in children has been identified.



Partnering with Agriculture to Produce Environmental Solutions

*This story was printed in the High Plains Journal on March 25, 2019, on page 4B "Opinion Editorials."
James B. Gulliford, Region 7 Administrator*



Here where the Corn Belt transitions to the Great Plains, agriculture is the single largest industry and most dominant land use with more than 291,000 farm operations across Kansas, Missouri, Iowa and Nebraska. These farmers provide the food, fuel and fiber that keep our nation running.

To say that agriculture is an important part of the economy and landscape in America's heartland would be understating the obvious. That is why the Environmental Protection Agency's role in rural America must be one where we help farmers, ranchers and agribusinesses be economically successful, while delivering cleaner water, cleaner air, and protected land for future generations to come.

To accomplish this, EPA Region 7 is partnering with the ag sector to provide targeted outreach and compliance assistance through

workshops, seminars and webinars to help prevent accidents from dangerous chemicals. EPA is also working with the ag community, state agencies, and other partners to determine ways to help monitor, prevent and predict harmful algal blooms. Currently, work is underway to provide common-sense nutrient management solutions aimed at improving the quality of our waterways.

With the largest remaining expanse of tallgrass prairie, the Flint Hills, residing here in Region 7, we also partner with a wide range of stakeholders in efforts to manage the prescribed burning of this fire-dependent ecosystem. The tallgrass prairie is a great source of pride, rich in cattle ranching tradition, and the ecosystem survives thanks to traditional land management practices. In partnership with cattlemen, state agencies, university officials, and scientists, we're working to identify measures that best protect public health from downwind smoke emissions while pre-

serving this endangered landscape.

Through partnerships like these, we're working to help the industry thrive while fulfilling our mission to protect public health and the environment. It's through collaboration and innovation like this that EPA and the ag community can best conserve the long-term health of our land and water resources. It's not our intent to focus on the past, but rather to open the future to new ideas and solutions. I am proud that EPA is looking outside of our own programs to enlist the resources and talents of others. In this regard, we are committed to engaging in discussions early and often with farmers, ranchers and the agribusiness community.

By working alongside our nation's first conservationists, we can better understand the implications of our actions and leverage shared support for a clean environment and healthy economy.

EPA Provides \$1.2 Million to Hypoxia Task Force States

EPA is providing a total of \$1.2 million to the 12 state members of the Hypoxia Task Force (HTF), which includes Iowa and Missouri, to help implement state plans to reduce excess nutrients in the Mississippi River/Atchafalaya River Basin. Through this funding, EPA is promoting tailored and effective nutrient reduction efforts that are developed through state leadership in coordination with EPA.

The HTF provides direction and support to improve water quality in local waterways and the Gulf of Mexico. By providing this funding to HTF states, EPA is further empowering our state partners to implement tailored and effective efforts, including updating nutrient management plans, developing water quality trading programs, and demonstrating best practices in high-priority watersheds.



Iowa Receives \$3.15 Million for Cooperative Agreements

Region 7 Administrator Jim Gulliford hosted an Iowa State Fair ceremony to announce more than \$3.15 million to fund Iowa-based projects that improve water quality, habitat, and environmental education through EPA Farmer-to-Farmer Cooperative Agreements. The three Iowa-based recipients for the 2019 agreements are:

- ***Practical Farmers of Iowa*** (\$935,788) for Roots for Water Quality: A Farmer-to-Farmer Model for a Sustainable Mississippi Basin.
- ***University of Iowa*** (\$1,064,926) for Connecting Rural and Peri-Urban Farmers to Demonstrate and Disseminate Innovative Nutrient and Sediment Reduction Practices.
- ***Iowa Department of Agriculture and Land Stewardship*** (\$1,150,000) for Effective, Targeted Wetland Installations to Maximize Nutrient Removal, Wetland Habitat Function, and Ultimately Expand Delivery.



“These Farmer-to-Farmer grants will promote innovative, market-based solutions for monitoring and improving water quality throughout the Gulf of Mexico watershed,” said EPA Administrator Andrew Wheeler. “These grants are an important part of our efforts to support America’s farmers in a manner that strengthens both American agriculture and the protection of our nation’s vital water resources.”

Improving Rangeland Prescribed Burn Practices in the Flint Hills

For over a decade, EPA Region 7 has worked with stakeholders in the Kansas Flint Hills to reduce smoke emissions from prescribed burns on their native wildland prairies. EPA recognizes that fire is part of a natural renewal process and essential for sustaining the tallgrass prairie, where millions of acres are traditionally burned in a compressed spring time period, potentially sending unhealthy levels of smoke emissions into downwind communities.

The Kansas Department of Health and Environment and EPA Region 7 continue to focus on outreach efforts encouraging landowners to spread out the timing of the prescribed burning to reduce air quality impacts. EPA Region 7 conducted 16 outreach events in 2019, focused on general smoke management, extending the burns over time, health effects, and avoiding exposure.

EPA Region 7 employees with the Air and Radiation Division, in partnership with the EPA Office of Research and Development, also published an article in *Science of the Total Environment* about their work

to characterize grassland fire activity in the Flint Hills region and regional air quality this year. Their work seeks to help EPA and ranchers better understand the impact of smoke in nearby communities during prescribed burns of prairie land. This data is being used to better predict downwind pollutant concentrations as they relate to fuel loading (a measurement of flammable material surrounding a fire). It is also being used to recommend varied optimal burn scenarios to lessen air quality impacts from the prescribed fires.

Working together, Region 7 looks to create better analytical tools that can be used to promote the best smoke management practices and preserve the Flint Hills prairies as a productive ecosystem and grazing resource, while minimizing the impacts of smoke on air quality in downwind communities.



Connecting With the Agriculture Community



EPA Region 7 participated in the Iowa State Fair for three days, where they engaged 3,000 visitors on EPA programs such as pesticides, drinking water, lead, laboratory services, and emergency response.



Harmful algal blooms (HABs) can be toxic to liver, kidney, and nervous system functions in humans and animals, and have occurred in all Region 7 states. Region 7 has conducted 211 outreach events to provide information to the public and agricultural stakeholders on how to identify and report HABs.



Partnering with the agribusiness community, EPA Region 7 has conducted three chemical accident prevention workshops and mock inspections attended by 71 individuals representing 46 companies and over 450 facilities, providing clarity and certainty to agricultural anhydrous ammonia retail facilities required to comply with provisions of the Clean Air Act.





WORKING
TOGETHER



Process Improvement Helps Prevent Oil Spills in Region 7

EPA Region 7 on-scene coordinators (OSCs) not only respond to spill emergencies, they also assess high-risk facilities to help prevent those emergencies, conducting about 35 inspections per year. A facility is considered high risk when it could pose a significant threat or harm to the environment in an emergency, due to their processes, volume of oil stored, and proximity to waterways.

Following an inspection, it can be time-critical to notify a facility that violations, risks or vulnerabilities exist. Using EPA's Lean Management System, the OSC team explored improvements to reduce delays in this notification process. This year, the team accomplished just that.

Prior to implementing the new planning tools and workload tracking, Region 7 delivered 58% of letters to facilities within 30 days and

14% of the letters took over 60 days. Now, 79% of letters are delivered within 30 days and no letters take over 60 days.

Quicker notification helps ensure that any issues are resolved as efficiently as possible, mitigating the risk of oil spills. Continually assessing how work is conducted and looking for process improvements is important for Region 7 as it delivers on its mission of protecting public health and the environment.





EPA Partners with States to Ensure Adequate Funding for Superfund Site Cleanups, Maintenance

In fiscal year 2019, EPA Region 7 supported 37 Superfund State Contracts (SSCs) totaling \$54.9 million in state cost-share. Required by the Comprehensive Environmental Response, Compensation and Liability Act, an SSC documents a state's assurances and involvement at sites where there are no viable parties to pursue and must be in place before federal Superfund resources are obligated for remedial action.



Cleaning up contaminated sites to be protective of human health and the environment is a core EPA mission and the purpose of the Superfund program. Ensuring the availability of funding to complete this work is vital to the timely and thorough cleanup and maintenance of Superfund sites.

Funding work at Superfund sites inspires confidence in the communities that their continued protection is a priority for both the state and federal government.

Inspections & Enforcement by the Numbers

In 2019, Region 7 completed two judicial referrals to the U.S. Department of Justice for **reimbursement** of approximately **\$1.25 million** in past response costs.



Region 7 additionally conducted **659** inspections, **99** penalty orders, and **22** compliance orders.

“ We know the protections mandated by federal environmental laws have been essential to the growth of American prosperity and well-being, and that non-compliance with these laws diminishes our shared prosperity and unfairly tilts the field of economic competition in favor of those few who would skirt the law. We want the regulated community to be in compliance. Realizing that, at the end of the day, it's just smarter and more economical to prevent pollution than to pay for the cleanup and live with the negative public health and regulatory consequences. ”

– EPA Region 7 Administrator Jim Gulliford

SUPERFUND & EMERGENCY MANAGEMENT DIVISION



11 Administrative and judicial settlements addressing cleanup activities worth **\$44** million

St. Louis Cardinals Win on Food Recovery

EPA Region 7 is committed to being a resource for businesses, organizations and schools looking to reduce waste, incorporate sustainable materials management, or prevent pollution in the heartland.

2019 marks the 10th anniversary of a successful partnership between EPA and the St. Louis Cardinals. The Cardinals' recycling program, "4 A Greener Game," has made great strides in stadium recycling and diverting waste from landfills. Community volunteers work at every home game to manage the 500 recycling bins, diverting 6,500 tons of waste since the beginning of the program.

To celebrate that partnership and to honor the Cardinals' achievement, EPA Administrator Andrew Wheeler traveled to St. Louis to recognize William Dewitt III, president of the St. Louis Cardinals, for "A Decade of Partnership in Sustainability."

"The Cardinals are proud of the work we do in conjunction with Delaware North in reducing food waste, which brings social, economic and environmental benefits to the community," said Matt Gifford, vice president of stadium operations.

Together, the Cardinals and concessionaire Delaware North diverted more than 226 tons of food from landfills last year and donated almost 10 tons of food (equal to 13,000 meals) to those in need.

To address food waste nationally, the White House, along with EPA, U.S. Department of Agriculture, and U.S. Food and Drug Administration, launched the Winning on Reducing Food Waste Initiative in fiscal year 2019. This helped to align efforts across the federal government to educate consumers, engage key stakeholders, and develop and evaluate solutions to food loss and waste. Earlier this year, President Trump acknowledged April as Winning on Reducing Food Waste Month and encouraged public action and participation from all sectors.

These combined efforts will help EPA make progress toward the national goal to reduce food loss and waste by 50% by the year 2030.





EPA Region 7 Responds to 2019 Midwest Floods

In spring 2019, EPA Region 7 responded to a large regional flood event, receiving more than \$5 million in mission assignments from the Federal Emergency Management Agency (FEMA) for operations in Iowa, Nebraska, Kansas, and Missouri. Nebraska and Iowa represented the largest FEMA mission assignments, with more than \$2.2 million and \$1.6 million respectively.

During the flood response, EPA Region 7 assessed 45 Superfund sites on the National Priorities List, 75 Facility Response Plan facilities, 617 Risk Management Plan facilities, and 76 Resource Conservation and Recovery Act facilities.

EPA Region 7 cleared more than 5,000 orphan containers in the region, including surveying 1,500 river miles and 500 highway miles, with more than 75% of orphan containers diverted from landfills. EPA also sampled the private wells of 280 families for *E. coli* at the request of the Nebraska Department of Health and Human Services.

Effective interagency partnerships during

natural disasters and emergencies serve as a force multiplier for EPA, enabling the agency to nimbly and effectively address immediate environmental and public health threats.

During the 2019 Midwest Flood response, EPA was able to ensure hundreds of facilities remained protected from flood threats, provide information regarding well water quality to Nebraska families, and identify and remove thousands of orphan containers with potentially unknown and hazardous contents from the environment. Taken together, these efforts demonstrate the vital role that EPA plays during emergencies and natural disasters in protecting citizens throughout the region.



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