PUTTING SITES TO WORK

How Superfund Redevelopment in Region 7 Is Making a Difference in Communities

2022 DATA

REGION 7 ECONOMIC PROFILE

EPA

Cover page photos:

Cherokee County (Kansas), Madison County Mines (Missouri), Hastings Chemical Commodities, Inc. (Kansas), Times Beach (Missouri), Times Beach (Missouri), Cherokee County (Kansas).

Figure 1. Entrance to the Missouri Mines State Historic Site at the Big River Mine Tailings site (Missouri).

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PREFACE

EPA's Superfund Program is a cornerstone of the work that the Agency performs for citizens and communities across the country. The revitalization of places affected by contaminated lands is a key part of Superfund's mission, meeting community needs for thriving economies and improved environmental and public health outcomes. Through EPA's Superfund Redevelopment Program, the Agency contributes to these communities' economic vitality by supporting the return of sites to productive use.

EPA is focused on accelerating work and progress at all Superfund sites across the country, and supporting redevelopment and community revitalization. Using resources from the 2022 Bipartisan Infrastructure Law, EPA is providing necessary funding to enable delayed cleanup efforts at 49 Superfund sites to move forward. More than 60% of these sites are in historically underserved communities. EPA is leading the way to support the return of these and other once-contaminated sites to productive use.

These regional profiles highlight community-led efforts as EPA expedites cleanup and remediation and engages with partners and stakeholders to support redevelopment and community revitalization.

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INTRODUCTION

EPA's Region 7 office serves Iowa, Kansas, Missouri, Nebraska and nine tribes. This area is well known for its wide-open spaces, agricultural strength, diverse ecological and recreational resources, and large military installations. This part of the country includes established urban areas, small towns, farmland, ranches and public lands. Communities across Region 7 are focusing on the cleanup and revitalization of old industrial sites, recognizing that these areas offer substantial opportunities for new development and innovation.

Today, states and communities are working diligently to find new uses for these areas, including Superfund sites. The Superfund program in EPA Region 7 is proud to play a role in these efforts.

The cleanup and reuse of Superfund sites often restores value to site properties and amenities to surrounding communities that have been negatively affected by contamination. Site redevelopment can revitalize a local economy with jobs, new businesses, tax revenues and local spending.

Region 7 Sites in Reuse and Continued Use: Business and Job Highlights

Businesses:	*1,861*
Total Annual Sales:	*$12.2 billion*
Number of People Employed:	*39,322*
Total Annual Employee Income:	*$2.5 billion*

Figure 2. Storefronts line the streets in Baxter Springs, Kansas at the Cherokee County site (Kansas).

Through efforts such as the Superfund Redevelopment Program, EPA Region 7 helps communities reclaim cleaned-up Superfund sites. Factoring the reasonably anticipated future use of Superfund sites into the cleanup process promotes their safe redevelopment. In addition, EPA Region 7 works closely with state and local officials to remove barriers that have kept many Superfund sites vacant or underused. EPA Region 7 works to ensure that businesses on properties being cleaned up under Superfund can continue operating in a way that protects human health and the environment during site investigations and cleanup work. This continuity enables these businesses to remain open and serve as a source of jobs and income for local communities.

Superfund sites across Region 7 are home to commercial and industrial parks, retail centers, condominiums and single family homes. Many sites continue to host industrial operations, including large-scale manufacturing facilities. Some sites now support alternative energy projects. Others have been transformed into ecological preserves, parks and recreation complexes. On-site businesses and organizations at current and former Region 7 Superfund sites provide an estimated 39,322 jobs and contribute an estimated $2.5 billion in annual employment income. Sites in reuse and continued use in Region 7 generate $78.5 million in annual property tax revenues for local governments.[1]

1 Business and property value tax figures represent only a subset of the beneficial effects of sites in reuse or continued use in Region 7. There are 42 Superfund sites in reuse or continued use in Region 7 for which EPA does not have business data, including six federal facilities on the Superfund National Priorities List (NPL). Not all sites in reuse involve an on-site business or other land use that would employ people. Several sites without businesses have beneficial effects that are not easily quantified, such as properties providing ecological or recreational benefits (e.g., parks, wetlands, ecological habitat and open space). In addition, there are 66 sites in reuse or continued use in Region 7 for which EPA does not have property value or tax data, including six NPL federal facilities.

This profile looks at how redevelopment activities at Superfund sites make a difference in communities across Region 7. In particular, it describes some of the beneficial effects of redevelopment and continued use of current and former Superfund sites. The profile also describes the land values and property taxes associated with Superfund sites returned to use and sites that have remained in use throughout the cleanup process. EPA updates these profiles periodically. The beneficial effects may increase or decrease over time due to changes in:

- The number of sites in reuse or continued use.
- The number of on-site businesses.
- Data availability.
- Changes in business and property value data.

Figures presented represent only a subset of all Superfund sites in reuse or continued use in Region 7.

Figure 3. Left: A furniture and appliance store at the Madison County Mines site (Missouri); Right: The Route 66 Visitors Center at the Cherokee County site (Kansas).

SUPPORT FOR SUPERFUND REDEVELOPMENT

EPA Region 7 is committed to improving the health and livelihood of Americans by cleaning up and returning land to productive use. In addition to protecting human health and the environment through the Superfund program, Region 7 partners with stakeholders to encourage redevelopment opportunities at Superfund sites. Region 7 helps communities and cleanup managers consider redevelopment during cleanup planning and evaluate remedies already in place to ensure appropriate redevelopment. In addition, EPA participates in partnerships with communities and encourages opportunities to support Superfund redevelopment projects that emphasize environmental and economic sustainability.

Specific redevelopment support efforts in EPA Region 7 include:

- Identifying and evaluating local land use priorities to align with site cleanup plans through the redevelopment planning process.
- Facilitating cleanup and redevelopment discussions to help resolve key issues between parties interested in site redevelopment.
- Supporting targeted projects intended to help Region 7 communities and EPA find the right tools to move site redevelopment forward.
- Making efforts to help address communities' and developers' liability, safety and reuse concerns through development of educational materials, comfort letters, developer agreements and environmental status reports – known as Ready for Reuse Determinations – that provide information about the appropriate use of sites.
- Supporting partnerships with groups committed to putting Superfund sites back into use, such as the U.S. Fish and Wildlife Service.
- Developing reuse fact sheets, websites, webinars and reuse case studies to share opportunities and lessons associated with Superfund Redevelopment.

Figure 4. Community Investment Prospectus developed to facilitate reuse at the Caney Residential Yards site (Kansas).

These efforts have helped build expertise across Region 7, making it easier to both consider future use of Superfund sites prior to cleanup and to identify opportunities for removing reuse barriers. These efforts also help tribes, state agencies, local governments, communities, potentially responsible parties, site owners, developers, and other partners and stakeholders to better understand potential future uses for Superfund sites. This helps stakeholders engage early in the cleanup process, ensuring that Superfund sites are restored as productive assets for communities. Most importantly, these efforts lead to significant returns for communities, including jobs, annual income and tax revenues.

SUPERFUND REDEVELOPMENT: THE BIG PICTURE

EPA can take and oversee immediate action at contaminated sites through short-term cleanup actions, also called removal actions.[2] EPA refers sites warranting long-term cleanup to its remedial program or to state programs. EPA's National Priorities List (NPL) is a list of sites the Agency is targeting for further investigation and possible remediation through the Superfund program. Once EPA places a site on the NPL, the Agency studies the contamination, identifies technologies that could address the material and evaluates alternative cleanup approaches. EPA then proposes a cleanup plan and, after collecting public input, issues a final cleanup plan. The Agency then cleans up the site or oversees cleanup activities. EPA has placed 100 sites in Region 7 on the NPL.

Whenever possible, EPA seeks to integrate redevelopment priorities into site cleanup plans. In Region 7, 70 NPL sites and 28 non-NPL Superfund sites are in use. These sites have either new uses in place or uses that remain in place from before cleanup. Many of these sites have been redeveloped for commercial, industrial and residential purposes. Others have been redeveloped for recreational, ecological and agricultural uses. Businesses and other organizations also use some site areas for memorials and parking areas. Many redeveloped sites support multiple uses and have the capacity to support additional uses and further redevelopment. The following sections take a closer look at the beneficial effects of businesses operating on current and former Superfund sites in Region 7.

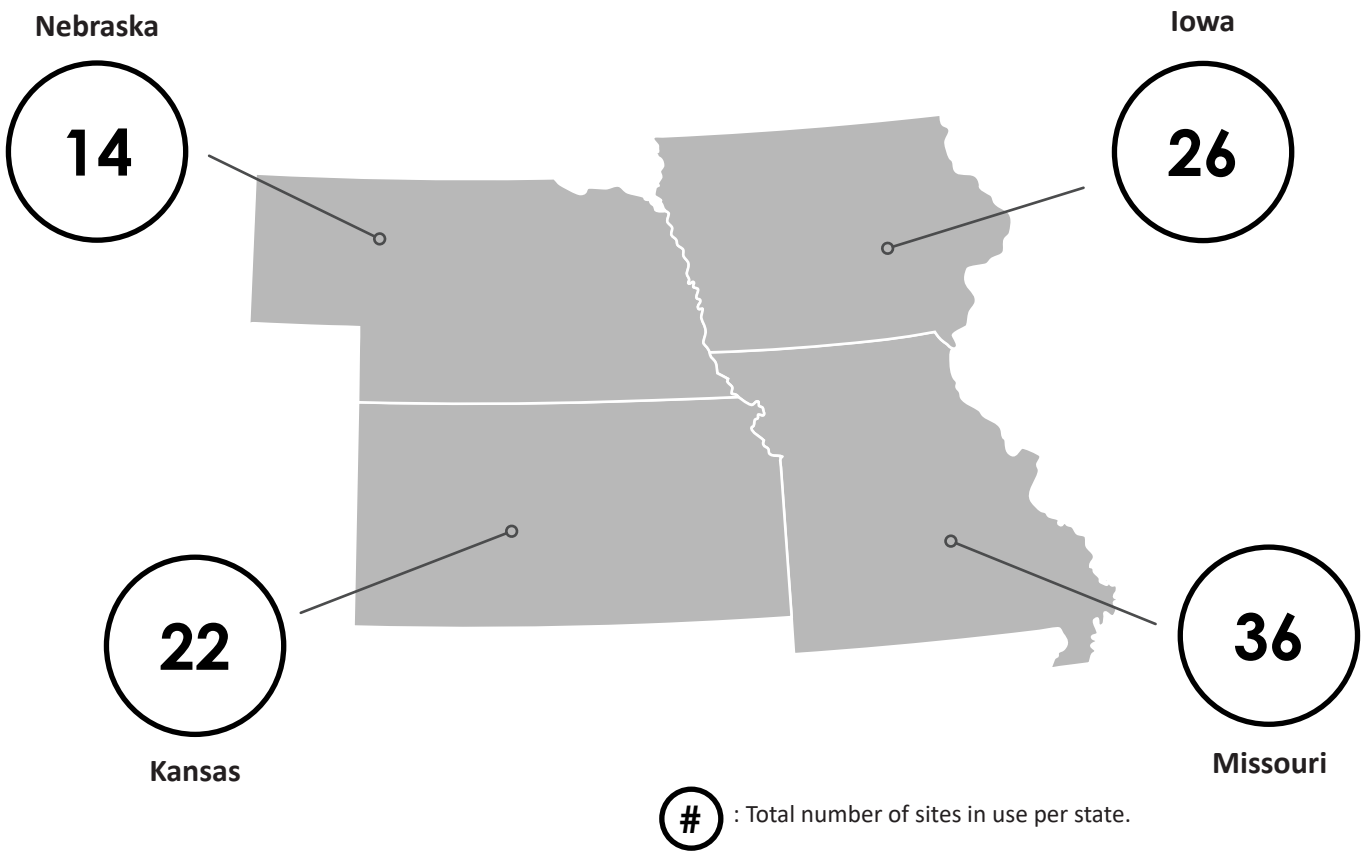


Figure 5. Sites in reuse and continued use in Region 7.

2 Removal actions may be taken at sites on the NPL and sites not on the NPL.

Figure 6. Left: Route 66 State Park Visitor Center at the Times Beach site (Missouri); Right: Olathe Pollinator Prairie at the Chemical Commodities, Inc. site (Kansas).

Sites in Reuse and Continued Use: A Closer Look

Reuse Type	Description	Region 7 Example
In Reuse	*Part or all of a site is being used in a new, different manner than before Superfund involvement. Or, the property was vacant and cleanup was designed to support a new, specific land use.*	*Aidex Corp. (Iowa) – this former pesticide manufacturing plant is now a traffic sign manufacturing facility.*
In Continued Use	*Historical uses at a site remain active, and/or the site is still used in the same general manner as when the Superfund process started at the site.*	*Garvey Elevator (Nebraska) – a grain storage facility contributed to soil and groundwater contamination. An EPA-led cleanup enabled safe grain storage operations to continue at the site.*
In Reuse and Continued Use	*Part of a site is in continued use and part of the site is in reuse.*	*Valley Park TCE (Missouri) – a metal processing plant remained open during and after cleanup; a landscaping company and a real estate preservation company are now located on a cleaned-up part of the site.*

45 | **22** | **31** = **98 SITES IN USE**

27 | **6** | **23** = **56 SITES WITH BUSINESSES**

BENEFICIAL EFFECTS OF SUPERFUND SITE REDEVELOPMENT IN REGION 7

Businesses and Jobs

EPA has collected economic data for 1,861 businesses, government agencies and civic organizations operating on 41 NPL sites and 15 non-NPL sites in reuse and continued use in Region 7. (See the State Redevelopment Profiles for each state's reuse details.) Businesses and organizations at these sites are part of several different sectors, including lodging, professional trade, industrial trade and health care services.

Businesses and organizations at Region 7 Superfund sites include hotels, schools, grocery stores, restaurants, civic and social organizations, freight transportation facilities, health care centers and manufacturing facilities.

Figure 7. An agency for individuals with developmental disabilities at the Strother Field Industrial Park site (Kansas).

The businesses and organizations at these sites generate about $12.2 billion in estimated annual sales and employ about 39,322 people, earning an estimated $2.5 billion in annual employment income. This income injects money into local economies and generates revenue through personal state income taxes. These businesses also help local economies through direct purchases of local supplies and services. On-site businesses that produce retail sales and services also generate tax revenues through the collection of sales taxes, which support state and local governments. Table 1 provides more detailed information.

Table 1. Site and Business Information for Region 7 Sites in Reuse and Continued Use (2022)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	*45*	*27*	*45*	*$755 million*	*1,855*	*$109 million*
In Continued Use	*22*	*6*	*9*	*$48 million*	*532*	*$30 million*
In Reuse and in Continued Use	*31*	*23*	*1,807*	*$11.4 billion*	*36,935*	*$2.3 billion*
Totals	***98***	***56***	***1,861***	***$12.2 billion***	***39,322***	***$2.5 billion***

[a] Six sites are federal facilities. Federal facility sites are excluded from all other detailed site and business data presented above.

[b] Also includes other organizations such as government agencies, nonprofit organizations and civic institutions. Business information is not available for all businesses on all Superfund sites in reuse or continued use. Throughout this report, sales and annual employee income may not sum exactly to the totals presented due to rounding.

Property Values and Property Tax Revenues

Properties cleaned up under the Superfund program and returned to use have the potential to increase in value significantly. This increased value can boost property tax revenues, which help pay for local government operations, schools, transit systems and other public services. Site properties at the Big River Sand Co. site in Kansas are now valued at over $26 million.

Identifying increases in property values and property taxes following cleanup and reuse is challenging. This is due to several factors, including limited data on past property values and the frequency and timing of local property value assessments. Likewise, many factors affect property values, including external economic and neighborhood factors not related to a site's contamination or Superfund status. It is also difficult to isolate the effects of Superfund cleanup and redevelopment using current property values. However, these values do provide insight into the current value of Superfund properties and the potential loss in economic value if the properties were not cleaned up and made available for reuse or continued use.

Region 7 Sites in Reuse and Continued Use: Property Value and Tax Highlights

Total Property Value: ***$4.6 billion***

Total Annual Property Taxes: ***$78.5 million***

Figure 8. An operations and training center at Peoples Natural Gas Co. site. (Iowa).

EPA has collected property value and tax data for 32 Superfund sites in reuse and continued use in Region 7.[3] These sites span 63,104 property parcels and 741,132 acres. They have a total property value of $4.6 billion. The average total property value per acre is $6,000.

Land and improvement property value information is available for 29 sites. These properties have a total land value of $782 million and a total improvement value of $3.2 billion.[4]

Property tax information is available for 32 sites. The properties generate a combined $78.5 million in local property taxes annually.

Table 2. Property Value and Tax Information for Sites in Reuse and Continued Use in Region 7[a]

Total Land Value (29 sites)	Total Improvement Value (29 sites)	Total Property Value (32 sites)	Total Property Value per Acre (32 sites)[b]	Total Annual Property Taxes (32 sites)
$782 million	$3.2 billion	$4.6 billion	$6,000	$78.5 million

[a] Results are based on an EPA Superfund Redevelopment Program effort to collect on-site property values and property taxes for a subset of Superfund sites. The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2021 to 2023. Throughout this report, property and tax values may not sum exactly to the totals presented due to rounding.

[b] Based on total property value amount of $4.6 billion divided by total acreage of 741,132.

3 There are 66 additional sites in reuse or continued use in Region 7 for which EPA does not have property value or tax data, including six NPL federal facilities.

4 Property values consist of land value and the value of any improvements (buildings and infrastructure) placed on a property. When sites are redeveloped, some or all of these improvements may be new or already in place. In some cases, the breakdown showing the land value and improvement value is not always available; only the total property value may be available.

BENEFICIAL EFFECTS FROM ENHANCED RECREATIONAL AND ECOLOGICAL AMENITIES

In addition to hosting commercial developments, retail centers and industrial facilities, many Region 7 sites in reuse and continued use provide recreational and ecological benefits. Green space and habitat reuses help attract visitors and residents and indirectly contribute to local economies.

Figure 9. A boat launch at the Times Beach site (Missouri).

Careful planning can enable the integration of green spaces and habitat into site cleanup plans, resulting in the transformation of contaminated properties into valuable community and wildlife assets. Green spaces are integral components of sustainable communities – they help protect the environment and human health while providing other social and economic benefits. Parks, community gardens and other public green spaces create opportunities for people to gather, exercise and connect with nature. The creation of green spaces and habitat at once-contaminated properties serves to re-introduce ecosystems and biodiversity into urban and suburban landscapes by providing corridors for migrating species and preserving habitat. They can also mitigate stormwater runoff problems by slowly absorbing and naturally filtering stormwater, resulting in improved water quality due to decreased runoff and erosion.

Parks, natural areas and scenic landscapes also have great economic value – supporting regional economies through tourism, agriculture and other activities. Economic impacts of recreation activities can include outdoor recreation spending and reduced public costs related to healthcare and infrastructure. In 2021, outdoor recreation contributed $862 billion to the U.S. economy, supporting 4.5 million jobs and 1.9% of the total gross domestic product (GDP). Outdoor recreation's contribution to the GDP grew 18.9% compared to the overall economy that grew 5.9% in 2021.[5] Protected green space can also increase the property values of nearby homes by providing amenities that draw people to live and work in the community. Many sites in Region 7 provide recreational and ecological benefits.

5 State of the Outdoor Market, Fall 2022. Outdoor Industry Association. Available at https://outdoorindustry.org/wp-content/uploads/2022/12/OIA-State-of-the-Outdoor-Market-Report-Fall-2022.pdf

BIG RIVER MINE TAILINGS/ST. JOE MINERALS CORP.

Former Mine Waste Area Transforms into Community Recreation Hub

This Superfund site in Desloge, Missouri, is part of a former mining region about 70 miles south of St. Louis that is often referred to as the "Old Lead Belt". The site consists of eight large areas of mine waste and spans about 110 square miles. EPA added the site to the NPL in 1992. The remedy includes mine waste removal and stabilization as well as treatment of dissolved zinc in groundwater seeps. Today, this large site hosts residential, commercial, industrial, recreational, public services, agricultural and ecological uses.

Figure 10. Picnic and playground amenities at Desloge City Park at the Big River Mine Tailing/St. Joe Minerals Corp. Superfund site (Missouri).

Cleanup has made several new and continued recreational uses possible at the site. St. Joe Minerals Corp. donated about 8,000 acres to the state in 1976. Recognizing the need for more recreational and ecological resources in the area, the Missouri Department of Natural Resources established St. Joe State Park later that year. The Federal Mine Tailings Site (Federal Site) is an approximately 1,240 acre mine tailings impoundment that is located within St. Joe State Park. The Federal Site is a popular riding area for off--road vehicle use, one of two in the state park system. The park has 54 miles of trails for off-road vehicle use, some of which traverse former mine tailing areas. Potentially Responsible Parties remediated the off-road vehicle area in 2021. Other recreation opportunities include camping, mountain biking, canoeing and kayaking, horseback riding, hiking and fishing. In the winter, cross-country skiing and snowmobiling are popular activities. The park has four lakes that are stocked for fishing; two of the lakes have swimming beaches. Maturing second-growth forests with native oak and hickory cover much of the park. Native grasslands and intermittent streams and wetlands provide opportunities to see bears, deer, coyotes, rabbits, birds, turtles, snakes and other native wildlife.

The 21-acre Desloge City Park includes an Olympic-size swimming pool, tennis courts, picnic tables, barbeque pits, an amphitheater, a walking and running path, and playgrounds. The park is open year round. Residents can reserve pavilions and gazebos for functions and gatherings. The Doe Run Company donated 33 acres of land to the city of Desloge that established Brightwell Park in 1983. The park includes three ball fields, a playground and a running trail that connects to other parks in the city. The Leadbelt Golf Club near downtown Bonne Terre offers a 9-hole public golf course. The course opened in 1922 and is a par 36 course. The Bonne Terre Drag Strip reopened in 2014 on the former location of a mine tailings pond. The facility offers an eighth-of-a-mile asphalt track with a concrete launch area for drag racing, as well as parking, a viewing stand, a racing tower and a concession stand.

In December 2021, the Big River Mine Tailings site was among those selected by EPA to receive cleanup funding under the Bipartisan Infrastructure Law (BIL). With this funding, EPA is already initiating work on backlogged remedial construction projects and accelerating cleanups at NPL sites. Under the BIL, 600 properties are projected for remediation through 2026.

HASTINGS GROUNDWATER CONTAMINATION
Groundwater Cleanup Supports Wetland Restoration and International Flyway

This Superfund site is in Hastings, Nebraska, and is one of EPA's largest and most complex groundwater cleanup projects. The site is part of an area of interconnected wetlands known as the Rainwater Basin that extends across 21 counties. The area is also the ancestral homelands of the Pawnee (Pâri) and the Jiwere people. In 1963, the U.S. Fish and Wildlife Service (USFWS) began acquiring areas in southeast Nebraska that were critical for migratory waterfowl habitat. Today, the USFWS has established 63 waterfowl production areas, including about 1,000 acres of the site, as the McMurtry Waterfowl Production Area, which is part of the Rainwater Basin Wetland Management District.

EPA added the site to the NPL in 1986. EPA continues to work with the U.S. Army Corps of Engineers and the Nebraska Department of Environment and Energy on long-term groundwater monitoring and cleanup activities. The USFWS is focused on maintaining habitat corridor continuity for the Rainwater Basin area, which at 160 miles wide is the narrowest part of the Central Flyway migration path, used by migratory birds. About 99% of native prairie has been converted to agricultural fields and 90% of wetlands have been lost due to agricultural expansion in the Rainwater Basin. The remaining 10% of wetlands are highly altered and fragmented.

The Rainwater Basin is internationally recognized for its significance to migratory birds. It receives thousands of visitors each year for birding, wildlife observation, hunting and photography. Millions of birds migrate through the area each spring. More than two-dozen species of waterfowl regularly use Rainwater Basin wetlands during migration, including more than one-third of the continent's northern pintails, 50% of the continent's mallards and over 90% of the mid-continent's greater white-fronted geese. About 300,000 shorebirds comprising more than 30 species regularly use the basins. These species include white-fronted geese, mallards, pintails, snow geese and sandhill cranes. In addition to protecting habitat for migrating birds, the area also provides protected habitat for elk, coyotes, mule deer, burrowing owls, bobcats, river otters and prairie dogs.

Figure 11. Otter and geese thrive in the Rainwater Basin at the Hastings Groundwater Contamination site (Nebraska).

Why Are Wetlands Economically Important?

Superfund site reuse can support wetland habitat, as seen at several sites in Region 7. At the Oronogo-Duenweg Mining Belt site, EPA and the state helped to construct wetlands, which has helped restore ecosystem services as well as provided for continued ecological and recreational reuses.

Wetlands provide a variety of benefits. The combination of shallow water, high levels of nutrients and primary productivity is ideal for organisms that form the base of the food web and feed many species of fish, amphibians, shellfish and insects. Wetlands are extremely effective in removing pollutants from water and acting as filters for future drinking water. Wetlands play a role in reducing the frequency and intensity of floods. They can store large amounts of carbon. They also provide recreational amenities.

Figure 12. A heron at the Southwest Jefferson County Mining site (Missouri).

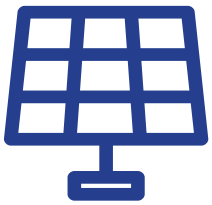
These benefits also have economic value. Replacing wetlands' water treatment services with manmade facilities, for example, would be expensive. Worldwide, wetlands provide an estimated $47.2 trillion in ecosystem services. To learn more, see:

- EPA's *Economic Benefits of Wetlands*: www.epa.gov/sites/default/files/2021-01/documents/economic_benefits_of_wetlands.pdf
- EPA's *Ecosystem Services at Superfund Sites: Reuse and the Benefit to Community:* semspub.epa.gov/src/document/HQ/100003256
- EPA's *Why Are Wetlands Important?*: www.epa.gov/wetlands/why-are-wetlands-important
- EPA's *Functions and Values of Wetlands*: www.epa.gov/sites/default/files/2021-01/documents/functions_values_of_wetlands.pdf

BENEFICIAL EFFECTS FROM ALTERNATIVE ENERGY PROJECTS

Alternative energy projects provide a range of beneficial effects. They support construction and operations jobs, spur local investment for manufacturing and materials, create benefits for landowners in the form of land lease and right-of-way payments, lower energy costs, and reduce greenhouse gas emissions. They also help hedge against energy price and supply volatility, support local business competitiveness and technology supply chain development, provide outreach and public relations opportunities for site owners and communities, and contribute to broader economic development planning. Alternative energy projects at Superfund sites and other contaminated lands help support White House priorities to strengthen resilience to climate change and increase access to clean energy sources. These projects also can help communities reclaim and return contaminated lands to productive uses, while supporting EPA's mission to protect human health and the environment.

As of September 2022, EPA is tracking three alternative energy projects at three Superfund sites in Region 7. These projects have an installed capacity of about 2.3 megawatts. One of these projects offset on-site energy demands of cleanup efforts by directly powering site-related cleanup activities.



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Solar Projects

Alternative energy projects tracked in **Region 7** generate an estimated **3,794 megawatt hours** each year.[6]
This is equivalent to...

2,689 metric tons of carbon dioxide

339 homes' energy use for one year

598 gas-powered vehicles driven for one year

6 Equivalencies were calculated using power production. Production values were not available for one project in Region 7. Estimated power production for solar projects was calculated using facility capacity (megawatts) with the National Renewable Energy Laboratory's PVWatts Calculator pvwatts.nrel.gov. To learn more about equivalencies, visit www.epa.gov/energy/greenhouse-gas-equivalencies-calculator.

ENVIRONMENTAL JUSTICE AND ECONOMIC REVITALIZATION

Communities with environmental justice concerns are disproportionately affected by environmental pollution and hazards and typically include marginalized, underserved, low-income groups and people of color, including tribal and indigenous people. Superfund cleanups and redevelopment are opportunities to evaluate how to reduce impacts on these communities and, through meaningful community involvement efforts, engage communities in productive dialogue to increase local benefits through reuse opportunities that meet community needs.

In 2021, President Biden issued two executive orders – Executive Order 13985 (Advancing Racial Equity and Support for Underserved Communities Through the Federal Government) and Executive Order 14008 (Tackling the Climate Crisis at Home and Abroad). The executive orders directed federal agencies to develop and implement policies and strategies that strengthen compliance and enforcement, incorporate environmental justice considerations in their work, increase community engagement, and ensure that at least 40% of the benefits from federal investments in climate and clean energy flow to underserved communities.

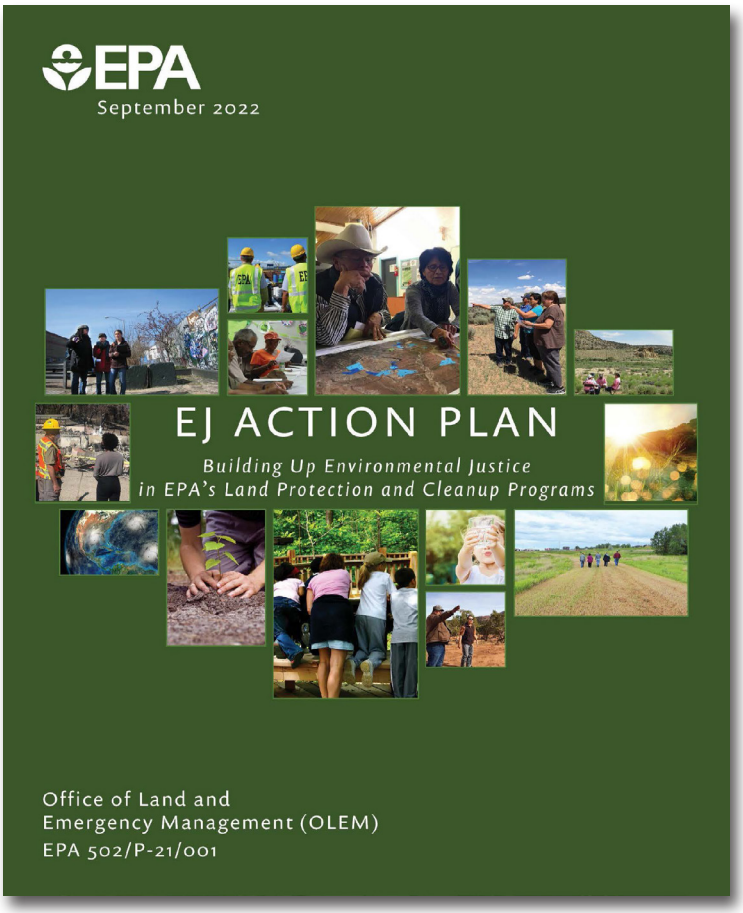

Figure 13. EPA's EJ Action Plan aims to address cleanup issues in overburdened communities across the country.

EPA has taken this charge to heart and, in September 2022, issued the *EJ Action Plan: Building Up Environmental Justice in EPA's Land Protection and Cleanup Programs (EJ Action Plan)*, intended to address land cleanup issues in overburdened communities across the country. The plan includes strategies to enhance nearly two dozen projects while addressing the need for stronger compliance, increased environmental justice considerations in EPA regulations, and improved community engagement. The plan also complements the recommendations for integrating environmental justice into the cleanup and redevelopment of Superfund and other contaminated sites highlighted in the May 2021 National Environmental Justice Advisory Council (NEJAC) report, *Superfund Remediation and Redevelopment for Environmental Justice Communities*.

In addition, EPA is using a $1 billion investment from the Bipartisan Infrastructure Law to fund new cleanup projects at 49 Superfund sites across the country. Many of these sites have been part of a backlog of Superfund sites awaiting funding for cleanup, some of which have been waiting for over four years. This historic investment will finance cleanup at eight sites in Region 7.

CLIMATE ADAPTATION AT SUPERFUND SITES

Remedies at contaminated sites may be vulnerable to the impacts of climate change and extreme weather events. EPA's Superfund program has developed an approach that raises awareness of these vulnerabilities and applies climate change and weather science as a standard operating practice in cleanup projects. The approach involves periodic screening of Superfund remedy vulnerabilities, prioritizing the Superfund program's steps to adapt to a changing climate, and identifying measures to assure the climate resilience of Superfund sites. EPA is working to ensure that its programs, policies, rulemaking processes, enforcement and compliance assurance activities, and operations consider the current and future impacts of climate change and how those impacts may disproportionately affect overburdened and underserved communities.

EPA's Superfund program has done studies to identify potential vulnerabilities of cleanup actions and evaluate strategies to mitigate these vulnerabilities. In 2012, EPA did a preliminary vulnerability assessment of all NPL sites. EPA found that a significant number of the sites were susceptible to flooding associated with sea-level risk or floodplain proximity. A 2018 EPA study assessed the status of remedies in place at 251 Superfund sites in EPA Regions 2, 4 and 6 that were exposed to tropical-force winds or flooding associated with three major hurricane events the previous year. It found that climate resiliencies built into the remedies implemented at these sites were critical to successfully maintaining long-term protectiveness. These studies have helped inform climate adaptation planning for the Superfund program.

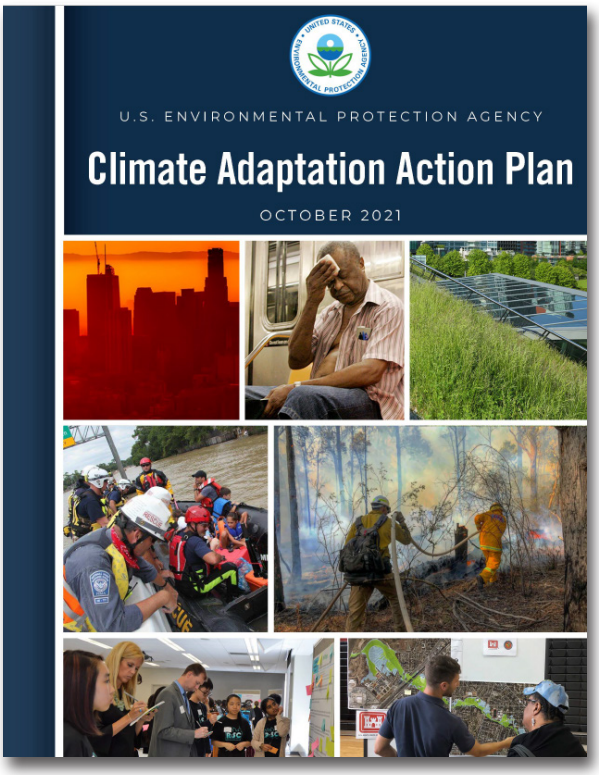

Figure 14. In January 2021, President Biden signed Executive Order 14008, requiring federal agencies to develop climate action plans that describe their climate vulnerabilities and steps to increase resilience to the impacts of climate change. In October 2021, EPA released its updated Climate Adaptation Action Plan, which includes five climate adaptation priority actions that the Agency is taking to increase human and ecosystem resilience as disruptive impacts associated with climate change increase.

Strategies for mitigating vulnerabilities and increasing remedy resilience in light of climate change may apply to existing or planned remediation systems. The strategies also may be applied to cleanups conducted under other regulatory programs or through voluntary efforts to increase remedy resilience to the potential effects of climate change.

Examples of climate adaptation measures that increase resiliency include:

- Vegetating landfill cap covers with native plants provides a ground cover that is tolerant of local seasonal temperature and precipitation extremes and minimizes the need for maintenance, such as mowing and watering.
- Designing and constructing capping systems to withstand significant storm and flood events.
- Raising the elevation of critical electrical instrumentation for remedial components and using water-tight materials to construct and protect remedial components.
- Restoring wetlands to reduce wave action in floodplain and intertidal zones to minimize erosion from storm events.
- Integrating specifications regarding tolerance of extreme weather and other natural hazards into building and remedial infrastructure designs.
- Routinely reassessing site vulnerability to wildfires and implementing resilience measures as recommended by firefighting agencies.

OPPORTUNITY ZONE TAX INCENTIVES AS SUPERFUND REDEVELOPMENT TOOLS

Opportunity Zones are a powerful tool to encourage economic revitalization in distressed communities by incentivizing long-term, sustainable investment in redevelopment and stimulating economic growth. State governors have designated 8,764 Opportunity Zones across the country in geographic areas that suffer double the national poverty rate. Socio-economic metrics show that Opportunity Zones are among the highest-need communities in the nation. The U.S. Department of the Treasury estimates that Opportunity Zones may attract up to $100 billion in investments, which strengthens the financial viability of redevelopment projects at Superfund sites located in Opportunity Zones.

Redevelopment of current or former Superfund sites may qualify for Opportunity Zone tax benefits. Nationally, there are 343 NPL sites located entirely or partially in Opportunity Zones. Estimates indicate there are thousands of Superfund removal sites in Opportunity Zones across the nation. In Region 7, there are 18 NPL sites located entirely or partially in an Opportunity Zone. Redevelopment investments that meet appropriate qualifying criteria may be eligible for Opportunity Zone tax benefits. EPA and the U.S. Department of Housing and Urban Development (HUD) have tools and resources to help local leaders achieve equitable outcomes in Opportunity Zone development projects.

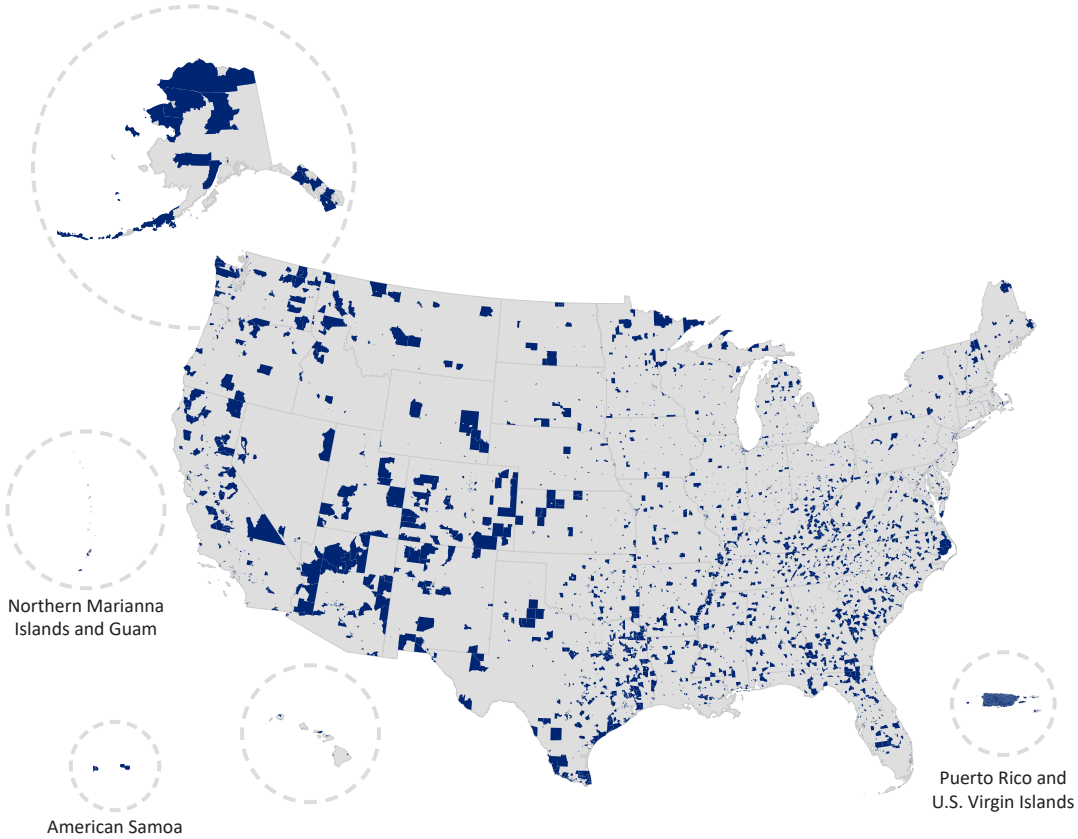

Figure 15. About 8,764 Opportunity Zones were established in all 50 states, the District of Columbia, and the five U.S. territories.

KANSAS CITY STRUCTURAL STEEL
A Former Community Eyesore Now Offers Community Amenities

For more than a century, smelting and steel fabrication at the Kansas City Structural Steel site in Kansas City, Kansas, contaminated soil and groundwater with heavy metals. The facility was once the largest silver and lead smelter in the world. EPA led cleanup activities that included demolition of vacant structures and consolidation of contamination under a soil cap. Cleanup finished in 1995. A local nonprofit organization saw the site's availability after cleanup as a major opportunity to attract employers and businesses to the area. The group purchased the site property in 1995.

As part of the acquisition process, the group entered into a Prospective Purchaser Agreement (PPA) with EPA to address its liability concerns and ensure the long-term protectiveness of the remedy. EPA has worked closely with the local nonprofit organization, the state of Kansas and real estate developers to support redevelopment – a grocery center and local police station – at the site. Efforts include modifications to land use restrictions that were part of the cleanup, enrollment in the Kansas Environmental Use Controls program and transfer of EPA covenants not to sue to the new owner. These activities allowed reuse construction to proceed while maintaining and enhancing the site's soil cap. The community celebrated the grand opening of a Walmart grocery store in September 2014, bringing affordable food options and economic opportunities to the area. About 7,000 people live within a mile of the site. About 50% of the community is considered low-income and the 9% unemployment rate is twice as high as in the rest of Kansas.

The real estate developers also donated several acres of the site to the Kansas City Police Department for construction of a police station. In 2017, the 6,000-square-foot South Patrol station opened on site. Its design encourages community interactions with police officers and includes a large meeting room for community gatherings. Today, about 86 people work at the station. Planning is underway for more reuses at the site.

Figure 16. The design of the South Patrol police station encourages community interactions at the Kansas City Structural Steel site. (Kansas)

LINDSAY MANUFACTURING CO.
Coordinated Cleanup Efforts Enable Continued Industrial Use with Optimized Operations

In the 1960s, Lindsay Manufacturing began making agricultural irrigation systems at its facility, which was built on the site of a former gas station in Lindsay, Nebraska. The manufacturing process generated waste acids, which the company disposed of by releasing them directly into the ground. The releases contaminated soil and groundwater in the area. EPA added the site to the NPL in 1989. About 250 people live within a mile of the site.

Groundwater cleanup included installation of extraction, irrigation and interceptor wells, use of an innovative technology to enhance naturally occurring biodegradation of contamination, and installation of treatment systems in homes with wells affected by contamination. EPA has collaborated with Lindsay Manufacturing throughout the cleanup to minimize impacts on facility operations and has pursued cost-effective remedial strategies such as using the company's irrigation technology as part of the cleanup approach, to reuse groundwater.

Reuse of contaminated groundwater is an innovative practice at a growing number of sites nationwide. In recent years, EPA has prioritized the reuse and recycling of treated wastewater and groundwater for beneficial use at Superfund sites and other contaminated lands. These uses include agricultural and landscape irrigation, industrial processes, household utilities and drinking water supplies. In the summer, when agricultural demand for water is high, site groundwater irrigates crops at a nearby farm whose wells were affected by the contamination. This approach benefits the farmer and Lindsay Manufacturing, irrigating fields and reducing the groundwater cleanup system's annual operating costs by about $100,000. Today, Lindsay Manufacturing employs about 500 people at its facility on site.

Figure 17. Lindsay Manufacturing's facility has remained open during cleanup at the Lindsay Manufacturing Co. Superfund site. (Nebraska)

ORONOGO-DUENWEG MINING BELT
Lead Cleanup Opens the Door to New Business Opportunities

From the 1850s to the 1970s, mining, milling and smelting of lead and zinc took place at the 20-square-mile Oronogo-Duenweg Mining Belt site in Joplin, Missouri. These operations spread mine waste throughout the area, which contaminated groundwater, surface water and soil with metals, including lead. EPA added the site to the NPL in 1990 and led a time-critical removal action to address high blood lead levels in local children. EPA cleaned up over 3,000 residential properties and agricultural lands in surrounding communities. The City of Joplin cleaned up lead-contaminated soil, funded by EPA under a grant, at 440 more homes as part of the recovery from a tornado that impacted the area in 2011. Other cleanup actions completed by EPA included connecting 520 homes to public water supplies, removing mine waste from 25 million cubic yards of soil, addressing contaminated sediment in the Spring River and constructing wetlands.

EPA has worked closely with the state of Missouri, local governments, communities and companies to ensure the safe continued use and beneficial reuse of parts of the site. In 1995, EPA signed a Prospective Purchaser Agreement (PPA) with Missouri Metal Recycling, Inc., a scrap metal recycler, as part of its purchase of 40 acres of the site. The company agreed to clean up the area to speed its redevelopment.

In 2001, the Missouri Department of Transportation (MoDOT) entered into an agreement with EPA to enable its extension of a Route 249 highway bypass across part of the site. EPA's innovative waste disposal practices allowed for the redevelopment of former mine waste containment areas into over 3 miles of roads for Webb City. MoDOT reclaimed mine tailings as fill material and issued the Route 249 Development Plan to guide development of areas containing the fill. As part of its goals to support sustainable redevelopment and protect human health, the plan covers zoning, land uses and institutional controls to assist sustainable redevelopment and protect human health. About 91,000 people live within the site boundary.

In 2018, developers began building a 300-acre commercial business park on a property cleaned up by EPA. The facility – Centennial Park – hosts a variety of operations, including a farm and home goods retailer, restaurant and a hotel. Development of the business park is ongoing.

In 2021, a local utility provider, Liberty Utilities – Empire District, opened a 12-acre, 2-megawatt community solar farm pilot on part of the site. It is the first renewable energy generation program in southwest Missouri. The project provides electricity to low and moderate income households, enabling homeowners and renters to lower their monthly energy bills. The utility plans to expand the footprint of the solar farm by 48 acres if the initial pilot project is a success.

Figure 18. Commercial businesses located at Centennial Park at the Oronogo-Duenweg Mining Belt site (Missouri).

PCB INC. – MISSOURI

Mixed-Use Redevelopment Project Signals Areawide Development, Revitalization and Growth

This site is in the Crossroads Arts District in Kansas City, Missouri. From 1982 to 1987, PCB Treatment Inc. (PTI) managed and processed electrical equipment at the property. In total, over 25 million pounds of materials contaminated with polychlorinated biphenyls (PCBs) were sent to PTI for treatment and disposal. The process contaminated the building's floors and walls with PCBs. Cleanup took place in 2004 and 2005. The 7-story building was dismantled, floor by floor. More than 19,000 tons of debris and soil were taken off site for disposal.

Developers quickly noticed the site property's potential; real estate company Copaken Brooks acquired it in 2007. However, initial plans for a condominium project did not move forward because of the economic downturn. After a project redesign, new partners stepped forward to work with Copaken Brooks. The new plans for the Arterra KC high-rise apartment project called for a 116-unit building. Estimated construction costs were $27 million. Project partners then worked through several challenges, including contractor changes. To address rising project costs, the project team proposed a larger building with more apartments and ground-level retail space. The local Land Clearance for Redevelopment Authority helped by providing the developers, Copaken Brooks and St. Louis-based Altus Properties, with a sales tax exemption. The project broke ground in July 2017. The Arterra KC opened in 2019.

The Arterra KC is a 12-story luxury residential tower, the first high-rise apartment project built in the Crossroads Arts District in downtown Kansas City. Copaken Brooks and Altus Properties jointly developed the project, which serves as a visual beacon of the area's growth and vitality. Arterra KC offers 126 state-of-the-art residential units, first-floor retail, a parking garage, an infinity pool overlooking Liberty Memorial, Penn Valley Park and the Crossroads Arts District, and a 12th-floor amenity suite that offers a coffee bar and views of the Kansas City skyline.

Figure 19. The first luxury high-rise building in the Crossroads Arts District in downtown Kansas City, the Arterra KC was built on the former PCB Inc. – Missouri site (Missouri).

REDEVELOPMENT ON THE HORIZON IN REGION 7

CANEY RESIDENTIAL YARDS
Residential Soil Cleanup Facilitates Community Investments and Revitalization Planning

At this former lead smelter in Caney, Kansas, EPA has led several removal actions to address lead contamination associated with its operations. EPA added the site to the NPL in 2020. The site's remedial investigation and feasibility study were completed, and an interim Record of Decision was signed in September 2022. EPA has completed residential soil sampling at more than 1,000 homes and removed lead-contaminated soil from over 300 properties. EPA selected a short-term remedy in the site's 2022 Interim Record of Decision. It includes institutional controls and the removal and off-site disposal of contaminated soil. Excavated areas will be filled in with clean fill and revegetated. Continued uses at the site include homes, businesses, and schools.

The site is in a federal Opportunity Zone. Community leaders and the local government are pursuing downtown revitalization and neighborhood improvements alongside the anticipated residential yard cleanup. EPA's Brownfields program supported the city with community revitalization planning assistance in 2021, with a focus on non-residential properties. Outcomes to date include a grocery market, downtown streetscape improvements and a new pool. The Superfund Redevelopment Program (SRP) provided technical assistance in 2022 and 2023 to support community investments in new and revitalized housing to help complement ongoing investigation and cleanup activities.

The city has identified addressing a shortage of quality housing as a long-term priority. The city is working with regional, state and federal housing experts to identify residential development programs, funding resources and planning strategies to address the housing shortage. EPA's SRP prepared a housing market assessment for southeast Kansas. Building on the assessment, SRP then developed a community profile that highlights housing investment needs and opportunities and strategic opportunities for revitalization, along with an action plan to help guide the city's efforts to strengthen the local housing investment market.

These collaborative efforts have created opportunities for public and private investments to support sustainable, healthy growth that provides community-wide benefits. A variety of incentives and programs now support local housing investments at multiple levels, ranging from single-home projects to neighborhood-scale developments. Caney's pride shines through in the activism, support and care that community members share with each other and the place they call home. City leadership is eager to work with investors on future opportunities that will create more social and economic benefits, further enhancing quality of life in Caney.

Figure 20. Crowds at Friday night lights cheer on the local high school football team at the Caney Residential Yards Superfund site (Kansas). Images from Ashley Roper Photography used with permission of Caney Betterment Group Foundation, Inc.

OMAHA LEAD
Comprehensive Cleanup Approaches Remove Lead Legacy for a Brighter Future

From the early 1870s to 1997, there were two lead smelting plants on the banks of the Missouri River. The plant smokestacks released lead and other heavy metals into the air. The metals then settled out of the air, contaminating areas across eastern Omaha, Nebraska. In the 1990s, routine testing found that over 36% of children tested in eastern Omaha had elevated blood lead level concentrations. The concentrations exceeded the national average in children 7 years and younger. In March 1999, EPA began sampling soil from residential properties where children with the highest blood lead level concentrations lived. EPA started a time-critical removal action just five months later.

EPA then delineated a 27-square-mile area as the Omaha Lead Superfund site, adding it to the NPL in 2003. It is the largest residential Superfund site in the country. Many neighborhoods and communities within the site boundary have environmental justice concerns. About 53% of people living on site are considered low income, compared to the state poverty rate of 28%. The unemployment rate is 7%.

EPA continued sampling and cleanup of residential properties through 2015. EPA sampled 42,161 residential properties and cleaned up 13,090 of the properties where samples exceeded the lead action level (400 parts per million). In 2015, EPA built on its partnerships with the City of Omaha and the Douglas County Health Department, funding separate Cooperative Agreements with each entity. The City of Omaha committed to finishing remaining cleanup activities, including ongoing efforts to collect soil samples, clean up remaining eligible residential properties, conduct exterior lead-based paint stabilization, and develop a public-facing website and a broad public education program. Today, the Omaha Lead Registry is a comprehensive information resource, enabling easy public access to information about efforts to control lead hazards in Omaha. [7]

The Douglas County Health Department (DCHD) continues blood lead level screening of children and works with many local partners to provide accessible information about lead risks and the resources available to mitigate those risks. Omaha has a large refugee resettlement community as well as a diverse mix of immigrants. With over 109 languages spoken in Omaha, the DCHD tailors its outreach and education efforts using native languages and culturally appropriate approaches. It also educates local healthcare providers to be able to identify children who may have lead exposures at home and to work with DCHD to address the sources of the potential exposures.

Close collaboration among EPA, the City and the DCHD has made it possible for people across eastern Omaha to remain in their homes. It has also created opportunities for economic revitalization and growth. Thanks in part to years of site-related communication and education with developers, engineers and environmental professionals, Omaha's development community is open to pursuing projects at once-contaminated lead sites after cleanup. For example, there is significant demand for vacant lots owned by the City and the Omaha Municipal Landbank for the development of affordable housing.

Figure 21. Immigrant and refugee members of the community share diverse businesses and cultural goods with people living on the Omaha Lead site (Nebraska).

7 https://lead-registry.cityofomaha-ne.gov/en-US

CONCLUSION

EPA works closely with its partners at Superfund sites across Region 7 to make sure sites can safely be reused or remain in continued use during and following cleanup. EPA also works with businesses and organizations at Superfund sites throughout the cleanup process to make sure they can remain open.

The businesses and organizations at these sites provide jobs and income for communities and generate local and state taxes. Cleanup and redevelopment also helps stabilize and boost property values. There are 70 NPL sites and 28 non-NPL Superfund sites in Region 7 that have either new uses in place or uses that have remained in place since before cleanup. Future uses are planned for many more Superfund sites in Region 7. EPA remains committed to working with all stakeholders to support Superfund redevelopment opportunities in Region 7.

Figure 22. A fast food restaurant at the Armour Road site (Missouri).

The redevelopment of Superfund sites takes time and is often a learning process for project partners. Ongoing coordination among EPA, tribes, state agencies, local governments, communities, potentially responsible parties, site owners, developers, and nearby residents and business owners is essential. EPA tools, including reuse assessments and plans, comfort letters and partial deletions of sites from the NPL, often serve as the foundation for moving forward. At some sites, parties may need to take additional actions to ensure reuses are compatible with site remedies.

Across Region 7, Superfund sites are now home to major commercial and industrial facilities, mid-size developments and small businesses providing services to surrounding communities. EPA is committed to working with all stakeholders to support the restoration and renewal of these sites as long-term assets.

EPA Superfund Redevelopment Resources

EPA Region 7 Superfund Redevelopment Coordinator
Tonya Howell | (913) 551-7589 | howell.tonya@epa.gov

Superfund Sites in Reuse: find more information about Superfund sites in reuse
www.epa.gov/superfund-redevelopment/find-superfund-sites-reuse

EPA Superfund Redevelopment Program Website: tools, resources and more information about Superfund site reuse
www.epa.gov/superfund-redevelopment

EPA Office of Site Remediation Enforcement Website: tools that address landowner liability concerns
www.epa.gov/enforcement/landowner-liability-protections

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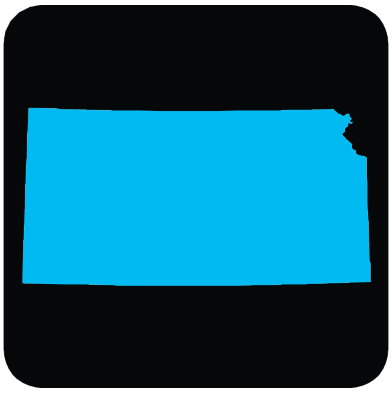
STATE REDEVELOPMENT PROFILES



IOWA REDEVELOPMENT PROFILE

EPA partners with the Iowa Department of Natural Resources to oversee the investigation and cleanup of Superfund sites in Iowa. Iowa has 26 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. The sections below present economic data, property values and tax data for sites in reuse or continued use in Iowa.

Businesses and Jobs

EPA has collected economic data for 22 businesses and organizations operating on 15 sites in reuse or continued use in Iowa.

Table 3. Detailed Site and Business Information for Sites in Reuse and Continued Use in Iowa (2022)

	Sites[a]	Sites with Businesses	Businesses	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	*15*	*10*	*12*	*$475 million*	*886*	*$58 million*
In Continued Use	*5*	*1*	*1*	*$3 million*	*23*	*$1 million*
In Reuse and in Continued Use	*6*	*4*	*9*	*$2.8 billion*	*3,422*	*$288 million*
Totals	***26***	***15***	***22***	***$3.3 billion***	***4,331***	***$347 million***

[a] One site is a federal facility. Federal facility sites are excluded from all other detailed site and business data presented above.

Property Values and Property Tax Revenues

EPA has collected property value data for seven Superfund sites in reuse or continued use in Iowa. These sites span 60 property parcels and 786 acres.

Table 4. Property Value and Tax Information for Sites in Reuse and Continued Use in Iowa[a]

Total Land Value (7 sites)	Total Improvement Value (7 sites)	Total Property Value (7 sites)	Total Annual Property Taxes (7 sites)
$9 million	*$43 million*	*$52 million*	*$2 million*

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2021 to 2022 for all data collected.

Figure 23. Electro-Coatings, Inc. (Iowa).

Did You Know?

Since 1947, metal-plating operations have occurred at the Electro-Coatings, Inc. site in Cedar Rapids, Iowa. Cleanup involved groundwater pumping and treatment and contaminated soil removal and off-site disposal, which allowed metal-plating operations to continue. The facility generates $3 million in estimated annual sales and provides over $1 million in estimated annual employee income. Plant operations include chromium, cadmium, nickel and zinc plating.

KANSAS REDEVELOPMENT PROFILE

EPA partners with the Kansas Department of Health & Environment to oversee the investigation and cleanup of Superfund sites in Kansas. Kansas has 22 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. The sections below present economic data, property values and tax data for sites in reuse or continued use in Kansas.

Businesses and Jobs

EPA has collected economic data for 274 businesses and organizations operating on 15 sites in reuse or continued use in Kansas.

Table 5. Detailed Site and Business Information for Sites in Reuse and Continued Use in Kansas (2022)

	Sites[a]	Sites with Businesses	Businesses	Total Annual Sales[b]	Total Employees	Total Annual Employee Income
In Reuse	*11*	*7*	*17*	*$35 million*	*373*	*$15 million*
In Continued Use	*5*	*2*	*5*	*$387,000*	*88*	*$3 million*
In Reuse and in Continued Use	*6*	*6*	*252*	*$1.5 billion*	*5,763*	*$318 million*
Totals	***22***	***15***	***274***	***$1.5 billion***	***6,224***	***$336 million***

[a] One site is a federal facility. Federal facility sites are excluded from all other detailed site and business data presented above.

[b] While sales values typically exceed estimated totals of annual income, sales can sometimes be lower than estimated income. This could be attributed to a number of business conditions and/or data reporting. In addition, annual sales figures are not available (or applicable for every organization that makes jobs data available.

Property Values and Property Tax Revenues

EPA has collected property value data for ten Superfund sites in reuse or continued use in Kansas. These sites span 8,356 property parcels and 89,781 acres.

Table 6. Property Value and Tax Information for Sites in Reuse and Continued Use in Kansas[a]

Total Land Value (10 sites)	Total Improvement Value (10 sites)	Total Property Value (10 sites)	Total Annual Property Taxes (10 sites)
$131 million	*$526 million*	*$657 million*	*$12 million*

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2021 to 2022.

Figure 24. Strother Field Industrial Park (Kansas).

Did You Know?

Until 1946, a military facility for aircraft construction and maintenance operated at the Strother Field Industrial Park site in Winfield, Kansas. Following its use as a military facility, the area became a municipal airport and Strother Field Industrial Park. Cleanup enabled the airport and industrial park's continued operations. A community mental health center is also located on site.

MISSOURI REDEVELOPMENT PROFILE

EPA partners with the Missouri Department of Natural Resources to oversee the investigation and cleanup of Superfund sites in Missouri. Missouri has 36 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. The sections below present economic data, property values and tax data for sites in reuse or continued use in Missouri.

Businesses and Jobs

EPA has collected economic data for 1,500 businesses and organizations operating on 16 sites in reuse or continued use in Missouri.

Table 7. Detailed Site and Business Information for Sites in Reuse and Continued Use in Missouri (2022)

	Sites[a]	Sites with Businesses	Businesses	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	*15*	*7*	*10*	*$11 million*	*79*	*$5 million*
In Continued Use	*7*	*1*	*1*	*$19 million*	*293*	*$18 million*
In Reuse and in Continued Use	*14*	*8*	*1,489*	*$6 billion*	*25,892*	*$1.6 billion*
Totals	***36***	***16***	***1,500***	***$6 billion***	***26,264***	***$1.6 billion***

[a] Three sites are federal facilities. Federal facility sites are excluded from all other detailed site and business data presented above.

Property Values and Property Tax Revenues

EPA has collected property value data for 11 Superfund sites in reuse or continued use in Missouri. These sites span 54,160 property parcels and 600,892 acres.

Table 8. Property Value and Tax Information for Sites in Reuse and Continued Use in Missouri[a]

Total Land Value (8 sites)	Total Improvement Value (8 sites)	Total Property Value (11 sites)	Total Annual Property Taxes (11 sites)
$603 million	*$2.5 billion*	*$3.8 billion*	*$63 million*

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2022 to 2023.

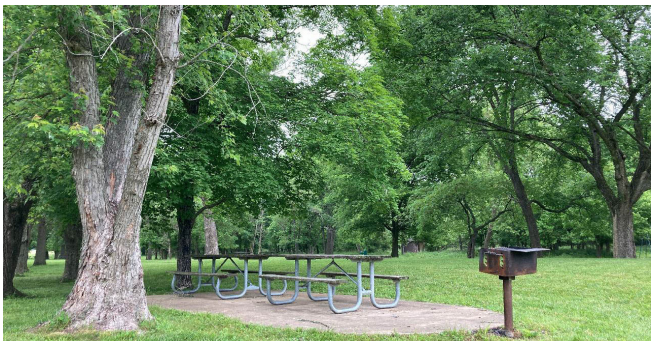


Figure 25. Times Beach (Missouri).

Did You Know?

The Times Beach site southwest of St. Louis, Missouri, is now home to the Route 66 State Park. The park provides more than 7 miles of trails for hiking, biking and equestrian use. Visitors can see a wide range of wildlife, including turkeys, geese, deer and more than 40 species of birds. The park also includes picnic areas and a boat ramp that provides access to the Meramec River. A visitor center provides information on the historic highway and the site's cleanup.

NEBRASKA REDEVELOPMENT PROFILE

EPA partners with the Nebraska Department of Environment and Energy to oversee the investigation and cleanup of Superfund sites in Nebraska. Nebraska has 14 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. The sections below present economic data, property values and tax data for sites in reuse or continued use in Nebraska.

Businesses and Jobs

EPA has collected economic data for 65 businesses and organizations operating on ten sites in reuse or continued use in Nebraska.

Table 9. Detailed Site and Business Information for Sites in Reuse and Continued Use in Nebraska (2022)

	Sites[a]	Sites with Businesses	Businesses	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	*4*	*3*	*6*	*$234 million*	*517*	*$31 million*
In Continued Use	*5*	*2*	*2*	*$25 million*	*128*	*$9 million*
In Reuse and in Continued Use	*5*	*5*	*57*	*$1.2 billion*	*1,858*	*$113 million*
Total	***14***	***10***	***65***	***$1.4 billion***	***2,503***	***$153 million***

[a] One site is a federal facility. Federal facility sites are excluded from all other detailed site and business data presented above.

Property Values and Property Tax Revenues

EPA has collected property value data for four Superfund sites in reuse or continued use in Nebraska. These sites span 528 property parcels and 49,673 acres.

Table 10. Property Value and Tax Information for Sites in Reuse and Continued Use in Nebraska[a]

Total Land Value (4 sites)	Total Improvement Value (4 sites)	Total Property Value (4 sites)	Total Annual Property Taxes (4 sites)
$38 million	*$80 million*	*$118 million*	*$2 million*

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which was 2022 for all data collected.

Figure 26. Cleburn Street Well (Nebraska).

Did You Know?

At the Cleburn Street Well Superfund site in downtown Grand Island, Nebraska, EPA traced contamination to three dry-cleaning facilities and a solvents distribution company. After remediation, businesses at the source areas employ about 10 people, generating over $2 million in annual sales.

REUSE INFORMATION SOURCES

Write-ups of sites in reuse or continued use included in this profile are based on available EPA resources, including Superfund Redevelopment Program case studies as well as other resources. Links to EPA's Superfund Redevelopment Program case studies and other resources are included below.

EPA Resources

Big River Mine Tailings/St. Joe Minerals Corp. 2018. Beneficial Effects Economic Case Study. semspub.epa.gov/src/document/HQ/100002113

Big River Mine Tailings/St. Joe Minerals Corp. EPA Site Profile. www.epa.gov/superfund/bigrivermine

Caney Residential Yards. EPA Site Profile. www.epa.gov/superfund/caneyresidentialyards

Caney Residential Yards. 2022. Interim Record of Decision. semspub.epa.gov/src/document/07/30821072

Caney Residential Yards. 2023. Community Investment Prospectus. semspub.epa.gov/src/document/HQ/100003157

Hastings Ground Water Contamination. EPA Site Profile. www.epa.gov/superfund/hastingsgroundwater

Kansas City Structural Steel. 2019. Site Redevelopment Profile. semspub.epa.gov/src/document/HQ/403554

Lindsay Manufacturing. 2017. Beneficial Effects Economic Case Study. semspub.epa.gov/src/document/HQ/100000769

Lindsay Manufacturing. EPA Site Profile. www.epa.gov/superfund/lindsaymanufacturingco

Lindsay Manufacturing. 2023. In-Depth Reuse Case Study. semspub.epa.gov/src/document/HQ/100003197

Omaha Lead. EPA Site Profile. www.epa.gov/superfund/omahalead

Omaha Lead. 2023. Cleanup and Redevelopment Guide to Lead Mining and Smelting Sites in Region 7. semspub.epa.gov/src/document/HQ/100003237

Oronogo-Duenweg Mining Belt. EPA Site Profile. www.epa.gov/superfund/oronogoduenwegmining

Oronogo-Duenweg Mining Belt. 2023. Site Redevelopment Profile. semspub.epa.gov/src/document/HQ/100003161

PCB Inc. – Kansas. 2019. Site Redevelopment Profile. semspub.epa.gov/src/document/HQ/403570

PCB Inc. – Kansas. 2020. In-Depth Reuse Case Study of Removal Action Sites in Kansas City. semspub.epa.gov/src/document/HQ/100002696

Other Resources

Hastings Ground Water Contamination. Reusing Contaminated Lands in Nebraska. nebraskapublicmedia.org/en/news/news-articles/reusing-contaminated-lands-in-nebraska/

Hastings Ground Water Contamination. Rainwater Basin Wetland Management District. www.fws.gov/refuge/rainwater-basin-wetland-management-district

Hastings Ground Water Contamination. Joint Venture Rainwater Basin. www.rwbjv.org/region/rainwater-basin/

Kansas City Structural Steel. Use of the Force: KC Debates Police Department Staffing. flatlandkc.org/news-issues/how-to-use-the-force-kc-debates-police-department-staffing/

BUSINESS, JOBS, SALES AND INCOME INFORMATION

Information on the number of employees and sales volume for on-site businesses comes from the Hoovers/Dun & Bradstreet (D&B) (https://www.dnb.com) database. EPA also gathers information on businesses and corporations from D&B. D&B maintains a database of over 330 million businesses worldwide.

When Hoovers/D&B research was unable to identify employment and sales volume for on-site businesses, EPA used the ReferenceSolutions database (https://thereferencegroup.com). In cases where ReferenceUSA did not include employment and sales volume for on-site businesses, EPA used the Manta database (https://www.manta.com). The databases include data reported by businesses. Accordingly, some reported values might be underestimates or overestimates. In some instances, business and employment information came from local newspaper articles and discussions with local officials and business representatives. While sales values typically exceed estimated totals of annual income, sales can sometimes be lower than estimated income. This can be attributed to a number of business conditions and/or data reporting.

EPA obtained wage and income information from the U.S. Bureau of Labor Statistics (BLS). Part of the U.S. Department of Labor, the BLS is the principal federal agency responsible for measuring labor market activity, working conditions and price changes in the economy. All BLS data meet high standards of accuracy, statistical quality and impartiality.

EPA used the BLS Quarterly Census of Employment and Wages database to obtain average weekly wage data for site businesses. Average weekly wage data were identified by matching the North American Industry Classification System (NAICS) codes for each type of business with weekly wage data for corresponding businesses in site counties. If weekly wage data were not available at the county level, EPA sought wage data by state or national level, respectively. In cases where wage data were not available for the six-digit NAICS code, EPA used higher-level (less-detailed) NAICS codes to obtain the wage data.

To estimate the annual income earned from jobs at site businesses, EPA multiplied the average weekly wage figure by the number of weeks in a year (52) and by the number of jobs (employees) for each business.

Business and employment data used for this profile were collected in 2022. Estimated annual employment income was calculated using 2022 jobs data and BLS average weekly wage data for those jobs from 2021 (the latest available wage data at the time of this profile). Federal facility sites are included in calculations of total sites in reuse or continued use only. Federal facility sites are excluded from all other calculations (i.e., number of sites with businesses, number of businesses, total jobs, total income and total annual sales). All sales and income figures presented have been rounded for the convenience of the reader. Throughout this report, sales and annual employee income may not sum exactly to the totals presented due to rounding.

PROPERTY VALUE AND TAX INFORMATION

EPA collected on-site property values and property taxes included in this profile for a subset of Superfund sites by comparing available site boundary information with available parcel boundary information and gathering information for selected parcels from county assessor datasets. The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which typically varied from 2021 to 2023. Throughout this report, property and tax values may not sum exactly to the totals presented due to rounding.

Back cover photos: ***Madison County Mines (Missouri), Cherokee County (Kansas), Times Beach (Missouri), Strother Field Industrial Park (Kansas), Southwest Jefferson County Mining (Missouri).***

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