PUTTING SITES TO WORK

How Superfund Redevelopment in Region 6 Is Making a Difference in Communities

REGION 6 ECONOMIC PROFILE

2020 DATA

EPA

Cover page photos:
Chevron Questa Mine (New Mexico), Tex-Tin Corp. (Texas), Bayou Bonfouca (Louisiana), Bayou Verdine (Louisiana), San Jacinto River Waste Pits (Texas).

Figure 1. Solar panels at the Chevron Questa Mine site (New Mexico).

TABLE OF CONTENTS

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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 has made historic investments to tackle the climate crisis and to ensure all communities have safe places to live and work. Working closely with communities, developers and property owners, EPA is leading the way to return these once-contaminated sites back to safe and beneficial 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 6 (South Central) office serves Arkansas, Louisiana, New Mexico, Oklahoma, Texas and 66 tribes. This part of the country includes some of the nation's fastest-growing cities as well as small towns, farmland, ranches and public lands. Urban and rural communities alike across the Region 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 6 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.

Through programs such as the Superfund Redevelopment Program, EPA Region 6 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 6 works closely with state and local officials to remove barriers that have kept many Superfund sites vacant or underused. EPA Region 6 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 communities.

Region 6 Sites in Reuse and Continued Use: Business and Job Highlights

Businesses:	*293*
Total Annual Sales:	*$795 million*
Number of People Employed:	*4,647*
Total Annual Employee Income:	*$239 million*

Figure 2. The Parkland Lakewest Women's Health Clinic at the RSR Corporation site (Texas).

Superfund sites across Region 6 are home to manufacturers, financial service providers, computer system specialists, freight transportation logistics companies, restaurants, hotels and a range of other uses. Public services at Superfund sites in Region 6 offer housing assistance, recycling facilities, public health assistance, sanitation support and safety training. One site supports a plant that converts landfill gas into clean-burning diesel fuel and other products. Another site hosts a state-of-the-art municipal marina. Sites also host ecological preserves and wildlife habitat. On-site businesses and organizations at current and former Superfund sites in Region 6 provide an estimated 4,647 jobs and contribute an estimated $239 million in annual employment income. Sites in reuse and continued use in Region 6 generate $7.7 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 6. There are 28 Superfund sites in reuse or continued use in Region 6 for which EPA does not have business data, including eight 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, open space). In addition, there are 30 sites in reuse or continued use in Region 6 for which EPA does not have property value or tax data, including eight NPL federal facilities.

This profile looks at how redevelopment activities at Superfund sites make a difference in communities across Region 6. 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 6.

Figure 3. Top: A business at the Fruit Avenue Plume site (New Mexico). Bottom: A community garden at the Bayou Bonfouca site (Louisiana).

SUPPORT FOR SUPERFUND REDEVELOPMENT

EPA Region 6 is committed to improving the health and livelihood of Americans by cleaning up and returning land to beneficial use. In addition to protecting human health and the environment through the Superfund program, Region 6 partners with stakeholders to encourage redevelopment opportunities at Superfund sites. Region 6 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 6 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 6 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 such as the U.S. Fish and Wildlife Service that are committed to putting Superfund sites back into use.
- Developing reuse fact sheets, websites, webinars and reuse case studies to share opportunities and lessons associated with Superfund Redevelopment.

EPA

DEQ

On this day, May 05, 2015,

the U.S. Environmental Protection Agency Determines that

26 Acres of the Central Plateau Area of the Eagle-Picher Henryetta Superfund Site

Are Ready for Commercial and Industrial Use

Carl Edlund
Director, Superfund Division
U.S. Environmental Protection Agency Region 6

Kelly Dixon
Director, Land Protection Division
Oklahoma Department of Environmental Quality

Figure 4. EPA Ready for Reuse certificate indicating that part of the Eagle-Picher Henryetta site (Oklahoma) is ready for reuse.

These efforts have helped build expertise across Region 6, 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.

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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 targeted by the Agency 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 contaminants and evaluates alternative cleanup approaches. EPA then proposes a cleanup plan and, after collecting public input, issues a final cleanup decision. The Agency then cleans up the site or oversees cleanup activities. EPA has placed 146 sites in Region 6 on the NPL.

Whenever possible, EPA seeks to integrate redevelopment priorities into site cleanup. In Region 6, 56 NPL sites and seven 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 support culturally and historically significant uses on site 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 at current and former Superfund sites in Region 6.

Figure 5. Goodwill Industries of Dallas, Inc.'s central processing facility for donated goods at the RSR Corporation site (Texas).

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

Figure 6. Left: A Winn Parish Fire District water truck at the American Creosote Works, Inc. (Winnfield Plant) site (Louisiana). Right: A loading bay at the engine component facility at the North Cavalcade Street site (Texas).

Sites in Reuse and Continued Use: A Closer Look

Reuse Type	Description	Region 6 Example
In Reuse	*There is a new land use or uses on all or part of a site. This is because either the land use has changed (e.g., from industrial use to commercial use) or the site is now in use after being vacant.*	*American Creosote Works, Inc. (Winnfield Plant). (Louisiana) – part of this former wood-treating facility now supports a joint fire response training facility for the city of Winnfield and Winn Parish.*
In Continued Use	*Historical uses at a site remain active; these uses were in place when the Superfund process started at the site.*	*North Cavalcade Street (Texas) – an engine component manufacturing and distribution facility has been on site since the 1980s.*
In Reuse and Continued Use	*Part of a site is in continued use and part of the site is in reuse.*	*RSR Corporation (Texas) – Goodwill Industries of Dallas, Inc.'s central processing facility for donated goods is on site after cleanup; long-time residential, commercial, industrial and public service areas remain active on site.*

BENEFICIAL EFFECTS OF SUPERFUND SITE REDEVELOPMENT IN REGION 6

Businesses and Jobs

EPA has collected economic data for 293 businesses, government agencies and civic organizations operating on 31 NPL sites and four non-NPL sites in reuse and continued use in Region 6.[3] The State Redevelopment Profiles provide more information on each state's reuse details. Businesses and organizations at these sites are part of several different sectors, including hotels, professional trade, industrial trade and health care services.

Businesses and organizations at Region 6 Superfund sites include hotels, schools, grocery stores, restaurants, civic and social organizations, freight transportation facilities, health care centers and manufacturing facilities.

The businesses and organizations at these sites generate about $795 million in estimated annual sales and employ an estimated 4,647 people who earn an estimated $239 million 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 presents more detailed information.[4]

Table 1. Site and Business Information for Region 6 Sites in Reuse and Continued Use (2020)

	Sites[a]	Sites with Businesses[b]	Businesses[c]	Total Annual Sales[d]	Total Employees	Total Annual Employee Income
In Reuse	*32*	*16*	*31*	*$120 million*	*571*	*$35 million*
In Continued Use	*20*	*9*	*42*	*$198 million*	*958*	*$72 million*
In Reuse and in Continued Use	*11*	*10*	*220*	*$477 million*	*3,118*	*$132 million*
Totals	***63***	***35[e]***	***293***	***$795 million[f]***	***4,647***	***$239 million[f]***

[a] Eight 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.
[c] Business information is not available for all businesses on all Superfund sites in reuse or continued use.
[d] For information on the collection of business, jobs and sales data, see the Sources section.
[e] See footnote 1, page 1.
[f] Throughout this report, sales and annual employee income may not sum exactly to the totals presented due to rounding.

3 See footnote 1, page 1.
4 For more information on the collection of business, jobs and sales data, see the Sources section.

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 Highway 71/72 Refinery site in Louisiana, for example, are now valued at nearly $79 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 6 Sites in Reuse and Continued Use: Property Value and Tax Highlights

Total Property Value: *$733 million*

Total Annual Property Taxes: *$7.7 million*

Figure 7. Hotel at the Highway 71/72 Refinery site (Louisiana).

EPA has collected property value and tax data for 33 Superfund sites in reuse and continued use in Region 6.[5] These sites span 3,123 property parcels and 5,556 acres. They have a total property value of $733 million. The average total property value per acre is $132,000.

Land and improvement property value information is available for 32 sites. These properties have a total land value of $192 million and a total improvement value of $541 million.[6]

Property tax information is available for 31 sites. The properties generate a combined $7.7 million in local property taxes annually.

Table 2. Property Value and Tax Information for Sites in Reuse and Continued Use in Region 6[a]

Total Land Value (32 sites)[b]	*Total Improvement Value (32 sites)[c]*	*Total Property Value (33 sites)*	*Total Property Value per Acre (34 sites)[d]*	*Total Annual Property Taxes (31 site)*
$192 million	*$541 million*	*$733 million*	*$132,000*	***$7.7 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 2020 to 2021. For more information, see the Sources section. Throughout this report, property and tax values may not sum exactly to the totals presented due to rounding.

[b] Detailed (land and improvement) property value data as well as tax data were not available for every site.

[c] Land and improvement value for one site is listed as $0.

[d] Based on total property value amount of $733 million divided by total acreage of 5,556.

5 There are 30 more sites in reuse or continued use in Region 6 for which EPA does not have property value or tax data, including eight NPL federal facilities. See footnote 1, page 1.

6 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 6 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.

Careful planning enables the integration of green spaces and habitat into site cleanup, 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 2017, outdoor recreation contributed $887 billion to the U.S. economy, supporting 7.6 million jobs and generating $63.5 billion in national tax revenue and $59.2 billion in state and local tax revenue.[7] 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 6 provide recreational and ecological benefits.

Figure 8. Aerial view of the Swan Lake Salt Marsh at the Tex-Tin Corp. site in Texas. The restoration project uses clean dredge material from a waterway maintenance project. (Source: National Oceanic and Atmospheric Administration, Office of Response and Restoration)

7 The Outdoor Recreation Economy. Outdoor Industry Association. Available at https://outdoorindustry.org/wp-content/uploads/2017/04/OIA_RecEconomy_FINAL_Single.pdf.

TEX-TIN CORP.
Salt Marsh Restoration Provides Vital Habitat

A copper and tin smelter operated at the 170-acre Tex-Tin Corp. Superfund site from the 1940s to 1991. A waste oil recovery facility was also on site in the early 1980s. EPA added the site to the Superfund program's National Priorities List (NPL) in 1998. Cleanup focused on soil, sediment and groundwater at the site, as well as affected homes and the nearby Swan Lake Salt Marsh Area.

In 2001, Natural Resource Trustees for the State of Texas, including the Texas Commission on Environmental Quality, General Land Office, Texas Parks and Wildlife Department, National Oceanic and Atmospheric Administration, and U.S. Fish and Wildlife Service on behalf of the Department of the Interior (the Trustees), led an environmental assessment of contaminated marsh sediments and created a restoration plan. The Trustees used Natural Resource Damage settlement funds from Tex-Tin together with other funding sources to restore more than 70 acres of marsh in Swan Lake in 2007 and more than 70 acres of marsh in nearby Pierce Marsh in 2016.

"The opportunity to leverage remaining Tex-Tin settlement funds with those from another regional case, and the use of maintenance dredging materials from the Gulf Intracoastal Waterway by the U.S. Army Corps of Engineers, dramatically increases the benefits realized from Trustees' restoration efforts. The public will be compensated for the injuries to estuarine habitats that resulted from a half-century of contaminant releases during operations at the site, and will gain ecosystem services – from fish and wildlife production to storm surge mitigation – for the communities around lower Galveston Bay."

– Kristopher Benson, National Oceanic and Atmospheric Administration Restoration Center

Figure 9. The marsh serves as an aquatic nursery, a migratory bird stopover, and a barrier against coastal erosion and storm surges.

LONGHORN ARMY AMMUNITION PLANT
Conservation-minded Wildlife Refuge with Ecotourism

The Longhorn Army Ammunition Plant opened in 1941. It produced TNT for the U.S. Army during World War II and made munitions for the military until 1997. EPA added the site to the NPL in 1990. The Army began investigations and cleanup in 1991. EPA and the state provided oversight. The Army closed the facility in 1997. With the loss of a major employer, the community planned for the site's beneficial reuse. The 8,146-acre site's location near the 40-square-mile Caddo Lake, the only natural lake in Texas, had led to earlier wildlife preservation initiatives, so ecotourism emerged as an economic development opportunity.

While working on closing the facility, the Army approached the U.S. Fish and Wildlife Service (FWS) about purchasing much of the property for a wildlife refuge. Local organizations such as the Caddo Lake Institute (CLI) and the Greater Caddo Lake Association of Texas jumped at the opportunity. They met with several federal agencies to advocate for the project. As interest in conservation increased, CLI leased over 1,300 acres of cypress wetlands from the Army. CLI facilitated education, research and conservation activities to demonstrate the site's ecological potential to FWS. CLI's project was successful. In 2000, the Army and FWS established an agreement to transfer over 5,000 acres of the site for a wildlife refuge. To date, more than 7,000 acres have been transferred.

To prepare the refuge for ecotourism, FWS restored the biodiversity of the upland forests and worked with local organizations to establish visitor infrastructure. FWS collaborated with community groups to preserve an Army guardhouse from World War II, transforming it into a wetland education center. In September 2009, hundreds of people celebrated the opening of the Caddo Lake National Wildlife Refuge. Today, the refuge includes internationally recognized wetlands with pristine mature flooded bald cypress forest, one of the best-preserved ecosystems of its kind in the United States. Many local organizations work together to support resource conservation, education and community outreach. Visitors participate in hiking, biking, horseback riding and birdwatching. There are over 200 species of birds at the refuge, as well as nearly 50 species of mammals and 90 species of reptiles and amphibians. EPA and the Texas Commission on Environmental Quality continue to provide oversight for the Army's cleanup of the site. The Army plans to transfer the remaining 1,200 acres of the site to FWS after cleanup ends.

"Our goal is to create a place for the public with activities and assets that build stewardship and an appreciation for the natural system that's there – an understanding of its uniqueness and sensitivity"

– Gary Endsley, President, Friends of Caddo Lake National Wildlife Refuge

Figure 10. The Caddo Lake National Wildlife Refuge, located on the western shore of Caddo Lake, Texas, is part of a bird migration corridor.

Why Are Wetlands Economically Important?

Superfund site reuse can support wetland habitat, as seen at several sites in Region 6. At the Longhorn Army Ammunition Plant site in Karnack, Texas, the Caddo Lake National Wildlife Refuge includes internationally recognized wetlands with pristine mature flooded bald cypress forest, one of the best-preserved such ecosystems in the United States. Bayou dredging and ecological rehabilitation at the Bayou Verdine site in Lake Charles, Louisiana, enabled continued use of the bayou as a habitat and wetland area. A containment cell area designed to contain contaminated sediments also allowed an innovative ecological revitalization that benefits a diverse array of species.

Figure 11. An egret at the Bayou Verdine site (Louisiana).

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.

These benefits also have economic value. Replacing wetlands' water treatment services with manmade facilities, for example, would be expensive. Worldwide, wetlands provide an estimated $14.9 trillion in ecosystem services. To learn more, see:

- EPA's *Economic Benefits of Wetlands*: www.epa.gov/sites/production/files/2016-02/documents/economicbenefits.pdf.
- EPA's *Why Are Wetlands Important?*: www.epa.gov/wetlands/why-are-wetlands-important.

Figure 12. The Caddo Lake National Wildlife Refuge is home to some of the most pristine old-growth bottomland hardwood forest in the United States.

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.

Several efforts in EPA Region 6 have encouraged opportunities for alternative energy projects at Superfund sites and other contaminated lands:

- In 2010, Chevron Technology Ventures built a 1-megawatt solar facility on a 21-acre part of the ***Chevron Questa Mine*** site. The facility began operating in April 2011. It uses a concentrated photovoltaic (CPV) system. At the time of its installation, the facility was one of the largest CPV systems in the world.
- Waste Management of Oklahoma developed a commercial facility for a renewable biogas and natural gas joint venture project at the ***Mosley Road Sanitary Landfill*** site in Oklahoma City, Oklahoma. It converts methane gas from the site into clean-burning diesel fuel and wax. Waste Management of Oklahoma pioneered the use of this kind of technology by first building and operating a demonstration unit at the neighboring East Oak Landfill.
- The ***Pantex Plant (USDOE)*** site in Pantex Village, Texas, became the nation's largest federally owned wind farm in 2013. The 11.5-megawatt facility, called the Pantex Renewable Energy Project, consists of five 2.3-megawatt turbines. It supplies more than 60% of the energy needed by the U.S. Department of Energy (USDOE) Pantex Plant. In June 2014, EPA Region 6 presented the plant with its Greenovations Award for its innovative reuse of the site.
- EPA is working with interested parties at the ***Agriculture Street Landfill*** site in New Orleans, Louisiana, and at the ***Goodrich Asbestos*** site in Miami, Oklahoma, to better understand site capacities to host solar arrays. Early investigations are underway to help inform future discussions about solar project feasibility.

Figure 13. Left: Construction of the solar array at the Chevron Questa Mine site (New Mexico). Right: Wind turbines at the Pantex Plant (USDOE) site (Texas).

Opportunity Zone Tax Incentives as a Superfund Redevelopment Tool

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 8,756 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 6, there are 38 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.

Learn more about Superfund Redevelopment and Opportunity Zones: https://www.epa.gov/superfund-redevelopment/superfund-redevelopment-using-opportunity-zone-tax-incentives

Environmental Justice and Economic Revitalization

Communities with environmental justice concerns are disproportionately affected by environmental pollution and hazards and typically include marginalized 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.

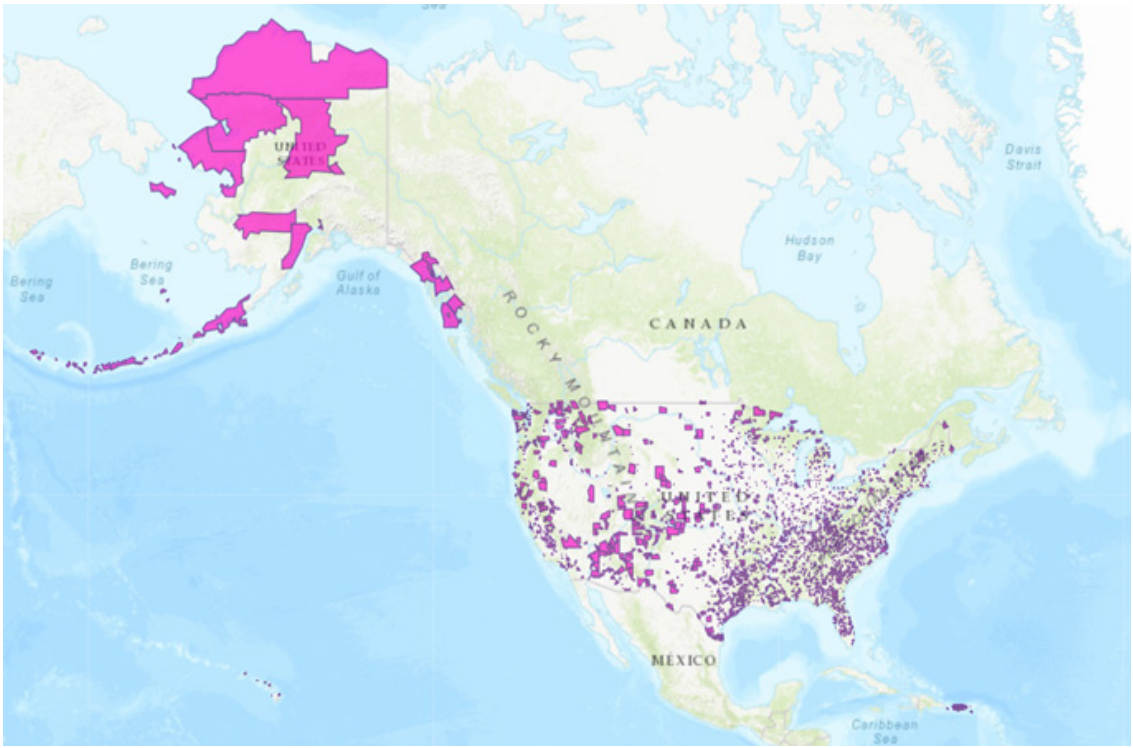

Figure 14. Map of Opportunity Zones in the United States. (Source: U.S. Department of Housing and Urban Development, Map of Opportunity Zones)

GULF STATE UTILITIES – NORTH RYAN STREET
Essential Energy Infrastructure

The 19-acre Gulf State Utilities – North Ryan Street site is in Lake Charles, Louisiana. From 1916 to 1932, several different owners ran a manufactured gas plant and disposed of coal tar in a 6-acre wetland area next to the plant. Gulf State Utilities (GSU) took ownership of the property and closed the plant in 1932. GSU used the same wetland area as a landfill to dispose of waste materials until 1980. These materials included electrical poles and equipment, debris and appliance casings. Utility workers found site contamination in 1988. After investigating the site in the early 1990s, EPA proposed listing it on the NPL in 1995.

EPA and GSU developed a cleanup plan that enabled the site to remain in industrial and commercial use. Cleanup included removal of contaminated soil and sediment, soil dewatering, and off-site disposal and capping of contamination. A mat of concrete blocks stabilizes the shoreline and protects the restored area on the southern bank of the Calcasieu River. EPA determined that the groundwater cleanup is protective of human health and continues to monitor groundwater.

Today, GSU – now the Entergy Corporation – operates a service center at the site. The facility provides essential electricity infrastructure services to customers in the Lake Charles Area. In 2020, Entergy provided nearly $18 million in annual employment income and generated an estimated $1.2 million in annual sales.

Figure 15. Left: Restoration efforts included stabilizing the shoreline using concrete mats. Right: Entergy stores utility-related items in the West Yard on site.

MCGAFFEY AND MAIN GROUNDWATER PLUME

Supporting Essential Public Services and Community Businesses

The 550-acre McGaffey and Main Groundwater Plume Superfund site is in Roswell, New Mexico. From 1956 to 2012, several dry-cleaning businesses operated on South Main Street. The daily operations of these businesses contaminated soil, soil vapor, indoor air and groundwater with tetrachloroethene (PCE) and trichloroethene (TCE). The New Mexico Environment Department (NMED) discovered the groundwater contamination in 1994 and linked it to the former dry-cleaning operations. NMED led immediate cleanup actions, connected affected residences to the public water supply and installed groundwater monitoring wells. EPA added the site to the NPL in 2002.

Cleanup addresses the risks of soil vapor intrusion and exposure to contaminated groundwater in area homes and businesses. NMED is investigating groundwater contamination beyond the source area and regularly reaches out to the community to inform public well users to not use groundwater for drinking water. The source-area groundwater cleanup is a high priority because the plume has affected water quality in the Roswell alluvial aquifer, which supplies domestic and irrigation wells. After funding approval, NMED will begin groundwater cleanup of the source area.

Commercial and industrial buildings as well as agricultural fields and two homes remain in use within the 7-acre groundwater contamination source area. Site businesses fulfill essential needs for the Roswell area. They include a family medicine practice, financial service providers, a housing authority and food production facilities. In 2020, businesses at the site employed 55 people and provided an estimated $2.3 million in annual employment income. Site businesses also generated an estimated $8.2 million in annual sales.

Figure 16. The front entrance and parking lot of the Eastern Regional Housing Authority facility (New Mexico).

TAR CREEK (OTTAWA COUNTY)
Recreational Reuse

The Tar Creek (Ottawa County) Superfund site is located in northeast Oklahoma. It consists of areas affected by historical mining operations. The site is also a part of the Tri-State Mining District, which spans parts of Oklahoma, Kansas and Missouri. The mining era left a legacy of open mine shafts, acid mine water, and large volumes of mining and milling wastes contaminated with lead, zinc and cadmium. EPA added the site to the NPL in 1983. EPA then led a series of targeted removal actions to make sure people could continue to live, work and farm safely in the area. To date, cleanup has included the relocation of four affected communities, the excavation of lead-contaminated soil from nearly 3,000 residential yards and high-access areas, and the remediation of over 6 million tons of mining waste and contaminated soil. Other efforts have included surface water management through constructed wetlands and the plugging of abandoned wells.

One of EPA's partners, the Quapaw Nation, successfully cleaned up the Catholic 40, a 40-acre area with significant cultural and historic meaning for the Quapaw Nation. This is the first NPL site cleanup led by a Native American tribe. In late December 2013 and early January 2014, workers dug up about 108,000 tons of contaminated mining waste for off-site disposal. Workers preserved historic structures, artifacts and landscape features during the cleanup. Recovered artifacts are now housed and on display at the tribal museum in Oklahoma. The Quapaw Nation's plans for the future at the Catholic 40 site include archeological research, tourism, education, historic preservation and grazing. The area is an important part of the Quapaw Nation's cultural and religious practices.

The Quapaw Nation, in cooperation with EPA and the state of Oklahoma, continues to plan, design and lead cleanup activities at other contaminated areas of the site. These efforts have set the stage for several redevelopment projects that reflect the Quapaw Nation's reuse priorities, including cultural preservation, agricultural use and the expansion of the Quapaw Nation's traditional economic focus on ranching. In response to stakeholder interests, EPA released a solar reuse assessment in 2019 that identified the potential for a 1,115-acre solar project area on part of the site that is contaminated with mining waste and located on Quapaw Nation tribal lands.

Redevelopment is also underway at non-tribal areas. Recently, the city of Miami partnered with the state of Oklahoma and EPA on the cleanup of the Eagle Picher office complex, located in the heart of Miami. It originally served as the local headquarters for the Eagle Picher Mining Company. For many years, the office complex sat abandoned with several environmental challenges, including the presence of mining waste on the property. The city acquired the property, coordinated cleanup efforts with the state and EPA, and converted the site into a family-friendly splash pad and park in summer 2020.

Cleanup across this large site has enabled widespread continued agricultural, commercial, public service and residential use and facilitated new development. Today, site businesses employ nearly 1,300 people and contribute more than $50 million in estimated annual employment income. In 2020, site businesses generated an estimated $148 million in combined sales.

Figure 17. Families using the 66 Miami Splash Pad in Miami, Oklahoma. (Source: Used with permission of photographer Gary Crow.)

TULSA FUEL AND MANUFACTURING
Honeybee Habitat and Restored Grasslands

The 61-acre Tulsa Fuel and Manufacturing site is in Collinsville, Oklahoma, just north of Tulsa. A zinc smelter operated at the site from 1914 to 1925. It helped meet the demand for zinc during World War I. The smelting operation used nine furnaces, which were believed to be fueled by nearby natural gas wells. During smelter operations, large amounts of ore were stored on site. Historical smelting operations contaminated soil, sediment and surface water with arsenic, cadmium and lead. EPA added the site to the NPL in 1999.

Cleanup, which took place between 2015 and 2016, included demolition of site structures, implementation of institutional controls, and consolidation and capping of 186,000 cubic yards of smelter waste and contaminated soil and sediment in a 10-acre containment cell on site. Fencing and signage around the perimeter of the cell prevent unauthorized access. The Oklahoma Department of Environmental Quality (ODEQ) continues to monitor groundwater and establishment of vegetation on the cap at the site. EPA took the site off the NPL in 2020.

ODEQ revegetated the cap of the containment cell as well as the remainder of the site with a mix of smooth brome grass, annual ryegrass, tall fescue, and red and white clovers. The restored area has attracted the attention of local beekeepers. After learning about the importance of bees and other pollinators for the environment and food supply, James and Courtney Deming became interested in honeybee rescue. In 2013, they purchased two beehives and started the Shadow Mountain Honey Company. In 2014, they rescued their first bee swarm and began a campaign to educate the public about how to identify and protect bee swarms. In 2016, the company partnered with a fellow beekeeper, Jay Ide, of Ide's Gary Avenue Gold Honey, to set up the Tulsa Swarm Hotline. The hotline has enabled the rescue of nearly 100 honeybee swarms a year. The partners provide free honeybee swarm rescue and removal, and relocate the bees to one of their apiaries. The rescued bees produce honey, which the companies sell in small batches. Most of the proceeds go to the preservation of the honeybee population and to the rescue and relocation of Tulsa bee swarms. In 2019, EPA presented its Greenovations Award to the beekeepers and the ODEQ for excellence in supporting safe, innovative and sustainable cleanup and reuse.

Today, Shadow Mountain Honey Company and Ide's Gary Avenue Gold Honey continue to expand their operations at the site. The site is now home to about 30 honeybee hives, all of which are swarms rescued from extermination. Native grasses and clovers planted during site restoration create an ideal habitat for bees. Cleanup resulted in the transformation of this once-contaminated smelter property into restored ecological habitat, one well suited to supporting the protection of bees and the production of high-quality honey.

Figure 18. Left: Jay Ide collecting honey from hives on site during the Greenovations Award presentation. Right: Jay and Sheryl Ide with a honeycomb at the site.

REDEVELOPMENT ON THE HORIZON IN REGION 6

CONROE CREOSOTING
Transforming a Former Wood-Treating Facility into a Home Improvement Distribution Center

The 147-acre Conroe Creosoting site is in Conroe, Texas, about 40 miles north of Houston. From 1946 to 1997, a wood-treating facility processed lumber, railroad crossties, poles and fence posts on site. These operations and waste management practices contaminated soil, sediment and groundwater with phenols, naphthalene, polycyclic aromatic hydrocarbons (PAHs) and pentachlorophenol (PCP). EPA added the site to the NPL in 2003.

To protect public health, EPA removed contaminated soil and sediment and placed the material in a special containment vault. Land use restrictions prohibit residential land uses. EPA also put in monitoring wells and continues to monitor the naturally attenuating groundwater contamination plume. In 2008, EPA issued a Ready for Reuse Determination indicating that the site is ready to support commercial and industrial land uses.

East Davis Development acquired the site property in 2011 and made infrastructure improvements to prepare the area for use as an industrial park. Pre-existing railroad infrastructure – with nearby access to the BNSF and Union Pacific railways – offers significant transportation and capacity benefits for prospective companies. In 2020, EPA and Conroe Logistics Center, LLC entered into a Bona Fide Prospective Purchaser Doing Work Agreement for the company's purchase of 42 acres of the site from East Davis Development. The company is building a distribution center on site for a national home improvement company. The $51 million facility is under construction. It will provide jobs, income, tax revenue and services for the surrounding community. About 100 acres of railroad-accessible land remain available for development at the industrial park.

Figure 19. Left: After Conroe Logistics Center, LLC's property acquisition, land remains available in East Davis Development's industrial park. Right: Sign advertising available space for industrial development at the site.

SOUTH VALLEY
Transforming a Former Jet Engine Plant into Essential Infrastructure and Businesses

The South Valley site covers about a square mile of land in an industrial area in Albuquerque, New Mexico. Univar USA has operated an industrial chemical distribution facility on part of the site since 1965, generating $12 million in annual revenue. A U.S. Air Force plant made jet engine components on the other part of the site beginning in the 1950s. EPA added the site to the NPL in 1983. General Electric Aviation (GEA) took ownership in 1985 and demolished the plant in 2011.

Operations on both parts of the site contaminated soil and groundwater with volatile organic compounds (VOCs). Univar began treating its groundwater contamination plume in the 1990s. The cleanup is ongoing. GEA removed and treated contaminated soil and concrete beginning in 1992. It continues to treat and monitor groundwater. In 2019, EPA and the New Mexico Environment Department determined that three of the six site areas, known as operable units, had achieved construction completion status. EPA took those operable units off the NPL in 2019.

When GEA demolished the jet engine component plant in 2011, the company committed to recycling or reusing all usable building materials. This “green demolition” kept nearly 20,000 tons of building and related materials out of local landfills and reduced demolition costs. The effort also supported 75 jobs and made the property available for redevelopment.

In 2019, EPA issued two comfort letters to prospective developers planning to transform the former GEA plant area into a disinfectant manufacturing facility and a heavy equipment repair business. Bernalillo County also plans to build a connector road between Interstate 25 and Albuquerque International Airport across the site. The county anticipates that the infrastructure project will ease traffic congestion and attract new businesses to the area.

Figure 20. Top: Concrete pads at the GE South Plant 83 area of the site. Bottom: Aerial view of the Univar USA facility at the site. Imagery © 2021 Google.

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CONCLUSIONS

EPA works closely with its partners at Superfund sites across Region 6 to make sure sites can be reused safely 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.

Figure 21. A wind turbine at the Pantex Plant (USDOE) site (Texas).

The businesses and organizations at these sites provide jobs and income for communities and generate local and state taxes. Cleanup and redevelopment also help stabilize and boost property values. There are 56 NPL sites and seven non-NPL Superfund sites in Region 6 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 6. EPA remains committed to working with all stakeholders to support Superfund Redevelopment opportunities in Region 6.

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 more actions to make sure reuses are compatible with site remedies.

Across Region 6, 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 6 Superfund Redevelopment Program Coordinator
Casey Luckett Snyder | 214-665-7393 | luckett.casey@epa.gov

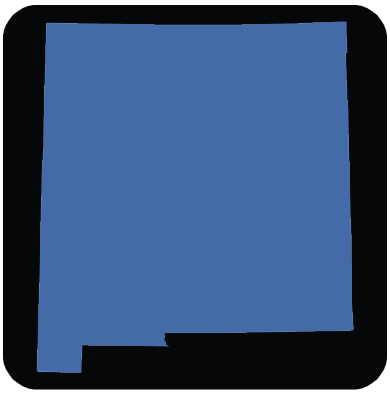
Superfund Sites in Reuse: find more information about Superfund sites in reuse.
www.epa.gov/superfund-redevelopment/find-superfund-sites-reuse

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

STATE REDEVELOPMENT PROFILES





ARKANSAS REDEVELOPMENT PROFILE

EPA partners with the Arkansas Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Arkansas. Arkansas has five 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 Arkansas.

Businesses and Jobs

EPA has collected economic data for seven businesses and organizations operating on four sites in reuse or continued use in Arkansas.

Table 3. Detailed Site and Business Information for Sites in Reuse and Continued Use in Arkansas (2020)

	Sites	Sites with Businesses	Businesses[a]	Total Annual Sales[b]	Total Employees	Total Annual Employee Income
In Reuse	*4*	*3*	*6*	*$573,000*	*100*	*$6 million*
In Continued Use	*1*	*1*	*1*	*$12 million*	*30*	*$2 million*
In Reuse and in Continued Use	*0*	*0*				
Totals	***5***	***4***	***7***	***$13 million***	***130***	***$8 million***

[a] Business information is not available for all businesses on all Superfund sites in reuse or continued use.
[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 two Superfund sites in reuse or continued use in Arkansas. These sites span 18 property parcels and 291 acres.

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

Total Land Value (2 sites)	Total Improvement Value (2 sites)	Total Property Value (2 sites)	Total Annual Property Taxes (2 sites)
$2 million	*$1 million*	*$3 million*	*$7,000*

[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 2020 to 2021.

Figure 22. Entrance to the drive-through recycling center at the Vertac, Inc. site.

Did You Know?

Reuse planning efforts for the Vertac, Inc. site in Jacksonville, Arkansas, led to remarkable reuse outcomes that support various Jacksonville public services. Today, site uses include a drive-through recycling center, office space and storage for the city's Street Department, a fire department training facility, a driver training pad, a recycling education park, a police department shooting range and a public safety building. The city's recycling center serves 10,000 residents.

LOUISIANA REDEVELOPMENT PROFILE

EPA partners with Louisiana Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Louisiana. Louisiana has 11 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 Louisiana.

Businesses and Jobs

EPA has collected economic data for 55 businesses and organizations operating on seven sites in reuse or continued use in Louisiana.

Table 5. Detailed Site and Business Information for Sites in Reuse and Continued Use in Louisiana (2020)

	Sites	Sites with Businesses	Businesses[a]	Total Annual Sales[b]	Total Employees	Total Annual Employee Income
In Reuse	*7*	*3*	*3*	*$41,000*	*13*	*$431,000*
In Continued Use	*1*	*1*	*1*	*$1 million*	*150*	*$18 million*
In Reuse and in Continued Use	*3*	*3*	*51*	*$57 million*	*618*	*$18 million*
Totals	***11***	***7***	***55***	***$58 million***	***781***	***$36 million***

[a] Business information is not available for all businesses on all Superfund sites in reuse or continued use.
[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 eight Superfund sites in reuse or continued use in Louisiana. These sites span 599 property parcels and 365 acres.

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

Total Land Value (7 sites)	Total Improvement Value (7 sites)	Total Property Value (8 sites)	Total Annual Property Taxes (8 sites)
$19 million	*$97 million*	*$116 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 from 2020 to 2021 for all data collected.

Figure 23. A walking path and stream at the Bayou Bonfouca site.

Did You Know?

Close collaboration among EPA, the Louisiana Department of Environmental Quality, the city of Slidell, Louisiana, and site owners have transformed the Bayou Bonfouca site. Wood-treating operations were active for over 100 years. The site is now a recreational gem featuring Heritage Park and the Slidell Municipal Marina. The city of Slidell uses part of the site for public operations offices and other city services. Other parts of the site, including the bayou, are set aside for aquatic habitat conservation.

NEW MEXICO REDEVELOPMENT PROFILE

EPA partners with the New Mexico Environment Department to oversee the investigation and cleanup of Superfund sites in New Mexico. New Mexico has 10 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 New Mexico.

Businesses and Jobs

EPA has collected economic data for 14 businesses and organizations operating on four sites in reuse or continued use in New Mexico.

Table 7. Detailed Site and Business Information for Sites in Reuse and Continued Use in New Mexico (2020)

	Sites	Sites with Businesses	Businesses[a]	Total Annual Sales[b]	Total Employees	Total Annual Employee Income
In Reuse	*7*	*2*	*2*	*$0*	*0*	*$0*
In Continued Use	*3*	*2*	*12*	*$20 million*	*76*	*$3 million*
In Reuse and in Continued Use	*0*	*0*				
Totals	***10***	***4***	***14***	***$20 million***	***76***	***$3 million***

[a] Business information is not available for all businesses on all Superfund sites in reuse or continued use. Two sites are federal facilities. 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 five Superfund sites in reuse or continued use in New Mexico. These sites span 26 property parcels and 287 acres.

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

Total Land Value (5 sites)	Total Improvement Value (5 sites)	Total Property Value (5 sites)	Total Annual Property Taxes (5 sites)
$5 million	*$3 million*	*$8 million*	*$121,000*

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which was from 2020 to 2021 for all data collected.

Figure 24. Vegetation at the AT & SF (Clovis) site.

Did You Know?

The 140-acre AT & SF (Clovis) site in Clovis, New Mexico, was an area contaminated by stormwater and wastewater discharge from a nearby railyard. Cleanup and remediation have resulted in the restoration of native grasses, providing habitat for migratory birds. The site also includes Santa Fe Lake and is located over the Ogallala Aquifer, which is a source of drinking water for the city of Clovis.

OKLAHOMA REDEVELOPMENT PROFILE

EPA partners with the Oklahoma Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Oklahoma. Oklahoma has nine 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 Oklahoma.

Businesses and Jobs

EPA has collected economic data for 99 businesses and organizations operating on six sites in reuse or continued use in Oklahoma.

Table 9. Detailed Site and Business Information for Sites in Reuse and Continued Use in Oklahoma (2020)

	Sites	Sites with Businesses	Businesses[a]	Total Annual Sales[b]	Total Employees	Total Annual Employee Income
In Reuse	*4*	*3*	*7*	*$17 million*	*89*	*$5 million*
In Continued Use	*3*	*1*	*1*	*$228,000*	*3*	*$84,000*
In Reuse and in Continued Use	*2*	*2*	*91*	*$340 million*	*1,559*	*$74 million*
Totals	***9***	***6***	***99***	***$357 million***	***1,651***	***$79 million***

[a] Business information is not available for all businesses on all Superfund sites in reuse or continued use. 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 three Superfund sites in reuse or continued use in Oklahoma. These sites span 57 property parcels and 362 acres.

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

Total Land Value (3 sites)	Total Improvement Value (3 sites)	Total Property Value (3 sites)	Total Annual Property Taxes (3 sites)
$3 million	*$23 million*	*$26 million*	*$336,000*

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which was from 2020 to 2021 for all data collected.

Figure 25. Pipe yard for a pipe manufacturing facility at the Fourth Street Abandoned Refinery site.

Did You Know?

A waste oil reclamation facility contaminated the Fourth Street Abandoned Refinery site. Today, four industrial and commercial businesses operate on site and there is room for more development. On-site businesses generate $3.7 million in annual employment income for nearly 70 people. Annual sales are just over $14.5 million.

TEXAS REDEVELOPMENT PROFILE

EPA partners with the Texas Commission on Environmental Quality to oversee the investigation and cleanup of Superfund sites in Texas. Texas has 28 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 Texas.

Businesses and Jobs

EPA has collected economic data for 118 businesses and organizations operating on 14 sites in reuse or continued use in Texas.

Table 11. Detailed Site and Business Information for Sites in Reuse and Continued Use in Texas (2020)

	Sites	Sites with Businesses	Businesses[a]	Total Annual Sales[b]	Total Employees	Total Annual Employee Income
In Reuse	*10*	*5*	*13*	*$102 million*	*369*	*$24 million*
In Continued Use	*12*	*4*	*27*	*$165 million*	*699*	*$49 million*
In Reuse and in Continued Use	*6*	*5*	*78*	*$79 million*	*941*	*$40 million*
Totals	***28***	***14***	***118***	***$346 million***	***2,009***	***$113 million***

[a] Business information is not available for all businesses on all Superfund sites in reuse or continued use. Five sites are federal facilities. 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 15 Superfund sites in reuse or continued use in Texas. These sites span 2,423 property parcels and 4,251 acres.

Table 12. Property Value and Tax Information for Sites in Reuse and Continued Use in Texas[a]

Total Land Value (15 sites)	Total Improvement Value (15 sites)	Total Property Value (15 sites)	Total Annual Property Taxes (13 sites)
$162 million	*$416 million*	*$578 million*	*$5 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 2018 to 2021.

Figure 26. Marine support services at the State Marine of Port Arthur site include barge cleaning.

Did You Know?

The State Marine of Port Arthur Superfund site is an industrial tract of land in Port Arthur, Texas. Municipal landfill and barge-cleaning facilities operated on site. Since 2015, two marine support service businesses have operated at the site, bringing 120 jobs to the area. Annual sales for the two businesses are about $27 million. They generate almost $8 million in annual employment income.

REUSE INFORMATION SOURCES

Summaries of sites in reuse or continued use 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

Conroe Creosoting Company. 2018. Third Five-Year Review Report. https://semspub.epa.gov/src/document/06/100010626.

Conroe Creosoting Company. 2020. Bona Fide Prospective Purchaser Administrative Settlement Agreement. https://semspub.epa.gov/src/document/06/100021374.

Gulf State Utilities – North Ryan Street. 2015. Second Five-Year Review Report. https://semspub.epa.gov/src/document/06/500020010.

McGaffey and Main Groundwater Plume. 2017. First Five-Year Review Report. https://semspub.epa.gov/src/document/06/100003795.

South Valley. 2019. NPL Partial Deletion Narrative. https://semspub.epa.gov/src/document/HQ/199593.

South Valley. 2020. Sixth Five-Year Review Report. https://semspub.epa.gov/src/document/06/100020260.

Tar Creek (Ottawa County). 2019. EPA Releases Final Tar Creek Strategic Plan To Improve Cleanup Progress. https://www.epa.gov/newsreleases/epa-releases-final-tar-creek-strategic-plan-improve-cleanup-progress.

Tar Creek (Ottawa County). 2019. Tar Creek Superfund Site Strategic Plan: Cleanup Progress & Plans For Future. https://semspub.epa.gov/src/document/06/100017221.

Tar Creek (Ottawa County). 2020. Site Redevelopment Profile. https://semspub.epa.gov/src/document/HQ/100002539.

Tulsa Fuel & Manufacturing. 2019. EPA Celebrates 20 Years Of Superfund Redevelopment; Recognizes Restored Site In Collinsville, Okla., For Reuse As Honeybee Habitat. https://www.epa.gov/newsreleases/epa-celebrates-20-years-superfund-redevelopment-recognizes-restored-site-collinsville.

Tulsa Fuel & Manufacturing. 2020. EPA Deletes Tulsa Fuel & Manufacturing Site From National Priorities List Of Contaminated Sites. https://www.epa.gov/newsreleases/epa-deletes-tulsa-fuel-manufacturing-site-national-priorities-list-contaminated-sites.

Other Resources

Entergy Lake Charles Power Station. Gulf States Utilities—North Ryan Street. Entergy Lake Charles Power Station: https://www.entergy.com/brightfuturela/lakecharles/ and https://www.entergynewsroom.com/news/lake-charles-power-station-achieves-commercial-operation.

EPA Acclaims Former Collinsville Zinc Smelting Site Repurposed As Honeybee Habitat. https://tulsaworld.com/communities/owasso/news/epa-acclaims-former-collinsville-zinc-smelting-site-repurposed-as-honeybee-habitat/article_3cb78aa2-4744-5618-a86b-96508bd90618.html.

Home Depot Eyes Conroe For New Distribution Center. https://www.houstonchronicle.com/neighborhood/moco/news/article/Home-Depot-eyes-Conroe-for-new-distribution-center-14829529.php.

Montgomery County Growing With A New Lowes And A New Home Depot. http://montgomerycountypolicereporter.com/montgomery-coutny-growing-with-a-new-lowes-and-a-new-home-depot.

Other Resources (continued)

Route 66 Miami Splash Pad. http://www.miamiokla.net/Facilities/Facility/Details/Route-66-Miami-Splash-Pad-51.

Sunport Boulevard Extension & Interchange Project. https://www.bernco.gov/public-works/blog/2021/04/16/sunport-boulevard-extension-interchange-project/.

Tar Creek's 'Bird Dog' Property May Be The Future Site Of A Solar Farm: EPA States It's Perfect For Solar Power Generation. https://www.koamnewsnow.com/tar-creeks-bird-dog-property-may-be-the-future-site-of-a-solar-farm.

Photos

Map of Opportunity Zones. https://opportunityzones.hud.gov/resources/map.

Tar Creek. Route 66 Miami Splash Pad. Image from http://www.miamiokla.net/Facilities/Facility/Details/Route-66-Miami-Splash-Pad-51 used with permission of photographer Gary Crow.

Tex-Tin Corporation. Damage Assessment, Remediation and Restoration Program. 2020. https://darrp.noaa.gov/hazardous-waste/tex-tin-corporation.

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 active and inactive businesses worldwide.

When Hoovers/D&B research was unable to identify employment and sales information for on-site businesses, EPA used the Reference Solutions database, formerly known as ReferenceUSA (https://www.data-axle.com/what-we-do/reference-solutions/). In cases where Reference Solutions did not include employment and sales information 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 2020. Estimated annual employment income was calculated using 2020 jobs data and BLS average weekly wage data for those jobs from 2019 (the latest available wage data at the time of this profile). Federal facility sites were included in calculations of total sites in reuse or continued use only. Federal facility sites were 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 ease of reading. 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 2020 to 2021 where date information was provided. Throughout this report, property and tax values may not sum exactly to the totals presented due to rounding.

Back cover photos: Chevron Questa Mine (New Mexico), Highway 71/72 (Louisiana), RSR Corporation (Texas), San Jacinto River Waste Pits (Texas), Bayou Verdine (Louisiana).

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