EPA

PUTTING SITES TO WORK

How Superfund Redevelopment in the South Central Region Is Making a Difference in Communities

2018

Cover page photos:
Vertac, Inc. (Arkansas), Fruit Avenue Plume (New Mexico), Bayou Verdine (Louisiana),
RSR Corporation (Texas), Chevron Questa Mine (New Mexico)

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Figure 1. Eagle Rock Lake at the Chevron Questa Mine site (New Mexico).

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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 Initiative, the Agency contributes to these communities' economic vitality by supporting the return of sites to productive use.

EPA has established a renewed focus on accelerating work and progress at all Superfund sites across the country and has created the Superfund Task Force whose work includes promoting redevelopment and community revitalization. Working closely with communities, developers and property owners, EPA is leading the way to return these once-contaminated sites back 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 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 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 like the Superfund Redevelopment Initiative, EPA Region 6 helps communities reclaim cleaned-up Superfund sites. Factoring in 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 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 for communities.

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

Businesses:	*215*
Total Annual Sales:	*$668 million*
Number of People Employed:	*3,498*
Total Annual Employee Income:	*$159 million*

Figure 2. The Goodwill facility 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 Region 6 Superfund sites provide an estimated 3,498 jobs and contribute an estimated $159 million in annual employment income. Cleaned-up sites in use in Region 6 generate $4.2 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 25 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 and open space). In addition, there are 37 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 2018 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 following cleanup 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. Left: The Jim Collins Family Center at the RSR Corporation site (Texas). Right: Homewood Suites hotel at the Highway 71/72 Refinery 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 productive 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 at cleaned-up sites. 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 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.

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.

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 then 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 140 sites in Region 6 on the NPL.

Whenever possible, EPA seeks to integrate redevelopment priorities into site cleanup plans. In Region 6, 44 NPL sites and six 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. 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 6.

Figure 4. Slidell Municipal Marina constructed on the Bayou Bonfouca site (Louisiana).

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

BENEFICIAL EFFECTS OF SUPERFUND SITE REDEVELOPMENT IN REGION 6

Businesses and Jobs

EPA has collected economic data for 215 businesses, government agencies and civic organizations operating on 23 NPL sites and two non-NPL sites in reuse and continued use in Region 6.[3] (See the State Redevelopment Profiles for 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 earn about $668 million in estimated annual sales and employ about 3,498 people, earning an estimated $159 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. More detailed information is presented in Table 1.[4]

Table 1. Site and Business Information for Region 6 Sites in Reuse and Continued Use (2017)

	Sites[a]	Sites with Businesses[b]	Businesses[c]	Total Annual Sales[d]	Total Employees	Total Annual Employee Income
In Reuse	*28*	*12*	*30*	*$189 million*	*862*	*$52 million*
In Continued Use	*13*	*6*	*41*	*$205 million*	*662*	*$28 million*
In Reuse and in Continued Use	*9*	*7*	*144*	*$274 million*	*1,974*	*$79 million*
Total	***50***	***25[e]***	***215***	***$668 million***	***3,498***	***$159 million***

[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 Sources.

[e] See footnote 1, page 1.

3 See footnote 1, page 1.

4 For additional information on the collection of business, jobs and sales data, see Sources.

Figure 5. Left: Entergy administrative building located at the Gulf State Utilities-North Ryan Street site (Louisiana). Right: The bulk oil storage and distribution terminal located on the Tex Tin Corp Superfund 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.*	*Vertac, Inc. (Arkansas) – formerly the location of industrial facilities, the site now supports a range of public service uses.*
In Continued Use	*Historical uses at a site remain active; these uses were in place when the Superfund process started at the site.*	*Frit Industries (Arkansas) – Frit Industries has made micronutrients and additives for fertilizer on site since 1973.*
In Reuse and Continued Use	*Part of a site is in continued use and part of the site is in reuse.*	*Tar Creek (Ottawa County) (Oklahoma) – long-time residential, commercial and public uses remain on site; new land uses include agricultural uses as well as tribal cultural and historic preservation areas.*

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 South Cavalcade Street site in Texas are now valued at nearly $12 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: *$433 million*

Total Annual Property Taxes: *$4.2 million*

Figure 6. Extended Studio Suite Hotel at the Highway 71/72 Refinery site (Louisiana).

EPA has collected property value and tax data for 13 Superfund sites in reuse and continued use in Region 6.[5] These sites span 2,195 property parcels and 2,316 acres. They have a total property value of $433 million. The average total property value per acre is $187,000.

Land and improvement property value information is available for 12 sites. These properties have a total land value of $96 million and a total improvement value of $337 million.[6]

Property tax information is available for 13 sites. The properties generate a combined $4.2 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 (12 sites)[b]	*Total Improvement Value[c] (12 sites)*	*Total Property Value (13 sites)*	*Total Property Value per Acre (13 sites)[d]*	*Total Annual Property Taxes (13 sites)*
$96 million	*$337 million*	*$433 million*	*$187,000*	*$4.2 million*

[a] Results are based on an EPA Superfund Redevelopment Initiative effort in 2018 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 2016 to 2018 where date information was provided. For additional information, see Sources.

[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 of the sites is listed as $0.

[d] Based on total property value amount of $433 million divided by total acreage of 2,316.

5 There are 37 additional 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. Greenspace and habitat reuses help attract visitors and residents and indirectly contribute to local economies.

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 can 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 can serve 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 recreational activities can include outdoor recreation spending and reduced public costs related to healthcare and infrastructure. In 2012, outdoor recreation contributed $646 billion to the U.S. economy, supporting 6.1 million jobs and generating $39.9 billion in national tax revenue and $39.7 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. Cleanup of the AT & SF (Clovis) site in Clovis, New Mexico, included restoration of native grasses, providing habitat for migratory birds. Dredging and ecological restoration at the Bayou Verdine site in Lake Charles, Louisiana, established valuable habitat, including wildflowers that support pollinator species. A YMCA built on the RSR site in the late 1990s following cleanup provides recreational opportunities for the community in additional to community services.

Figure 7. Vegetation at the AT & SF (Clovis) site (New Mexico).

7 The Outdoor Recreation Economy. Outdoor Industry Association. Available at outdoorindustry.org/pdf/OIA_OutdoorRecEconomyReport2012.pdf.

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, has 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 an array of species. Cleanup actions at the Bailey Waste Disposal site in Bridge City, Texas site protected sensitive wetlands and made them safe for wildlife and recreation.

Figure 8: View of wetlands in Caddo Lake National Wildlife Refuge (Texas).

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*: nepis.epa.gov/Exe/ZyPDF.cgi/2000D2PF.PDF?Dockey=2000D2PF.PDF
- EPA's *Why Are Wetlands Important?*: www.epa.gov/wetlands/why-are-wetlands-important.

Beneficial Effects from Alternative Energy Projects

Alternative energy projects can also produce a range of beneficial effects. They can support construction and operations jobs, spur local investment for manufacturing and materials, create benefits for landowners in the form of land lease or right-of-way payments, lower energy costs, and reduce greenhouse gas emissions. They can also help hedge against energy price and supply volatility, help support local business competitiveness and technology supply chain development, provide outreach and public relations opportunities for site owners and local communities, and contribute to broader economic development planning.

Figure 9. Solar array at the Chevron Questa Mine site (New Mexico).

Several efforts in Region 6 have encouraged opportunities for alternative energy project development on Superfund and other impaired sites:

- In 2010, Chevron Technology Ventures built a 1-megawatt solar facility on a 20-acre portion of the **Chevron Questa Mine** site. The facility began operating in April 2011.
- 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, which 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.

REDEVELOPMENT IN ACTION

BAYOU BONFOUCA

New Waterfront Recreation Opportunities

The 54-acre Bayou Bonfouca site is located in the city of Slidell in St. Tammany Parish, Louisiana. Beginning in 1882, companies owned and ran a creosote plant on site. Spills and improper disposal practices contaminated the area and the surrounding bayou. EPA added the site to the NPL in 1983. EPA and the Louisiana Department of Environmental Quality (LDEQ) worked together on a cleanup and restoration plan. The cleanup decontaminated 170,000 cubic yards of sediments, treated 235 million gallons of contaminated groundwater and recovered 9.8 million gallons of creosote oil. During cleanup, EPA constructed buildings on site to house remedial components and installed a boat ramp to access the Bayou.

In 1997, following cleanup, the site owners donated the prime waterfront property to the city for redevelopment, including the area with EPA's buildings and boat ramp. Today, the city uses those buildings as offices and support structures for its public works department. The boat launch is available for public use, providing boat access to Bayou Bonfouca. The locality also coordinated with EPA and LDEQ on plans for nearby community green space and a city park. The city hosts annual Fourth of July festivities at Heritage Park with firework spectators viewing the show from the park and the bayou. Site cleanup resulted in the restoration of over 1 mile of Bayou Bonfouca's waterway.

In 2012, the city received a $1.5 million Boat Infrastructure Grant to promote boating access along Bayou Bonfouca on the site. Coordination among the city, LDEQ and EPA paved the way for the Slidell Municipal Marina. In April 2017, the city of Slidell held a groundbreaking ceremony for the start of the new marina on the site. The marina opened in summer 2018. The project includes floating docks, piers, pedestrian pathways and other amenities to encourage recreational boating on Bayou Bonfouca. The marina provides boaters access to Heritage Park and downtown Slidell from Lake Pontchartrain. In May 2018, EPA Region 6 recognized the city's efforts with its Excellence in Site Reuse Award. Region 6 established the award to celebrate people and organizations that have supported the reuse of Superfund sites through outstanding efforts that go above and beyond required cleanup.

Figure 10. Slidell Municipal Marina on the Bayou Bonfouca site (Louisiana).

REDEVELOPMENT IN ACTION

CHEVRON QUESTA MINE

Renewable Energy, Recreation and Ecological Restoration

The 4.5-square-mile Chevron Questa Mine site is located near Questa in Taos County, New Mexico. From 1920 to 2014, Chevron Mining Inc. (Chevron) operated a molybdenum mine and milling facility along the Red River. Mining operations and waste disposal contaminated soil, sediment, surface water and groundwater as well as sediments in nearby Eagle Rock Lake. EPA added the site to the NPL in 2011. Cleanup activities include excavating and disposing of contaminated soil, regrading, covering and revegetating waste rock piles, covering and revegetating tailing impoundments, installing groundwater recovery systems, treating groundwater, installing stormwater controls, dredging, providing a temporary alternate water supply, placing drilling restrictions, and dewatering the underground mine. Cleanup continues today.

In 2008, Chevron began focusing on development of new commercial opportunities, including solar technologies. With over 300 sunny days a year in Questa, Chevron recognized that a solar demonstration project could work well at the site. In coordination with EPA and New Mexico state agencies, Chevron began construction of a 21-acre concentrated photovoltaic (CPV) system. A CPV system follows the sun, concentrates its light and converts it into electrical energy. In April 2011, Chevron began operating the CPV system. At the time of its installation, the solar facility was one of the largest CPV installations in the world. The system continues to operate today and generates 1 megawatt of power annually, enough to power 150 homes. The Kit Carson Electric Cooperative purchases the electricity under a 20-year agreement.

The site has also provided opportunities for ecological restoration and recreation. Three-acre Eagle Rock Lake had been a community resource for decades. After contamination from the site impacted the lake, community members prioritized its restoration as part of plans focused on outdoor recreation and tourism. Cleanup of the lake began in 2015. The effort included excavating contaminated lake sediments, installing a clay liner to seal the lake bottom and installing an automatic gate at the Red River inlet to keep storm runoff from the lake. Chevron replaced lakeside recreation facilities and put in new walkways and bridges. In October 2015, community members and local organizations, Chevron, and EPA and state agencies came together to officially reopen Eagle Rock Lake. Today, residents enjoy fishing and explore lakeside trails, which are designed to be accessible for people with disabilities. In September 2017, EPA recognized project partners with its Greenovations Award for excellence and innovation in site restoration.

Figure 11. Questa village officials at the EPA Greenovations award ceremony (New Mexico). From left to right: Administrator Nicholas Maestas, Councilman Lawrence Ortega and Mayor Mark Gallegos.

REDEVELOPMENT IN ACTION

STATE MARINE OF PORT ARTHUR AND PALMER BARGE LINE

Business Expansion

From the 1970s to the 1990s, marine industrial activities took place at both the State Marine of Port Arthur (State Marine) and Palmer Barge Line (Palmer Barge) Superfund sites in Port Arthur, Texas. Improper waste disposal practices contaminated soil and sediment with metals and hazardous chemicals at both sites. EPA added the State Marine site to the NPL in 1998 and the Palmer Barge site to the NPL in 2000. From the 1956 to 1987, the city of Port Arthur operated a municipal landfill at the sites. Between 1982 and 1997, a barge-cleaning company also operated on both sites.

Cleanup of the State Marine site included removal and off-site disposal of waste materials, water treatment, oil/water separation, and stabilization and off-site disposal of sludge. In addition to those activities, cleanup of the Palmer Barge site also included excavation and off-site disposal of contaminated soil, backfilling of excavated areas, and removal and decontamination of wastewater sludge. Land use restrictions are in place for both sites.

The sites are ideally located – they have direct access to the Port of Port Arthur, are spacious and could accommodate varied industrial operations. Tubal-Cain, a marine steel fabrication and vessel-cleaning company, approached the site owners about leasing both sites. From 2009 to 2015, Tubal-Cain leased the site. In mid-2015, Tubal-Cain purchased the site properties and began construction of its Marine Services facility and headquarters on the Palmer Barge property. However, prior landfill operations and closure complicated construction efforts. Texas Municipal Solid Waste Regulations prohibit activities that could affect the integrity of the landfill cover. Working with Texas Commission on Environmental Quality, Tubal-Cain constructed its headquarters building so that it was raised one story above ground level. In addition to preventing disturbance of the cover and possible landfill gas contamination, the building's elevation also prevents damage during hurricanes and flooding events.

In early 2017, Tubal-Cain completed construction of the Marine Services facility and accompanying headquarters. Today, the sites are home to three Tubal-Cain subsidiaries – Tubal-Cain Marine Services, Tubal-Cain Gas Free Services and Tubal-Cain Industrial Services. Together, these businesses employ 150 people and provide about $8 million in estimated annual employment income. The combined value of site properties in 2017 was $548,000. On-site properties also generated nearly $16,000 in property taxes in 2017.

Figure 12. Tubal-Cain Marine Services Headquarters at the Palmer Barge Line site (Texas).

REDEVELOPMENT IN ACTION

HIGHWAY 71/72 REFINERY

Hotel Complex Development

The 215-acre Highway 71/72 Refinery site is located in Bossier City, near Shreveport, Louisiana. Between 1923 and 1967, site uses included an oil refinery and a petroleum storage and distribution facility. From the mid-1950s to the mid-1960s, property owners dismantled, removed and sold most of the refinery equipment. In 1966, the site owner began voluntary cleanup efforts. Those efforts included filling in ponds and bayous with soil, clearing structures, foundations and piping in planned residential areas, removing oil, product and gas lines, and burning or removing asphaltic refinery waste. Following these early cleanup efforts, residential and commercial development took place on site, beginning in 1968. Site investigations in 1985 found that the earlier cleanup activities had not adequately addressed contamination at the former refinery. Following this discovery, EPA and the site's potentially responsible party (PRP) implemented a cleanup approach that took the site's residential and business areas into account.

EPA did not finalize the site's listing on the NPL. The site's PRP addressed the cleanup using an alternative approach that requires the same investigations, cleanup process and standards required for sites listed on the NPL. Cleanup included a removal action to address lead-contaminated surface soil, an indoor air removal action to address indoor air contamination at eight locations, groundwater monitoring and treatment, monitoring of indoor air, and land and groundwater use restrictions. The site's remedy also requires cleanup of contaminated soil discovered during future sampling or uncovered during earthmoving activities, and periodic notifications for people living and working on site of the contamination and cleanup, available services, and groundwater use restrictions.

Large-scale demolition and excavation were not feasible cleanup options in the heavily developed area. The cleanup plan allows the site's PRP to address previously inaccessible waste during redevelopment. For example, the removal of a former Holiday Inn hotel on site allowed cleanup crews to access buried refinery waste, clearing the way for construction of a new hotel complex after cleanup. Construction of the hotel complex began in 2011 and finished in 2013. The complex includes a Hilton Garden Inn, a Homewood Suites, a swimming pool and a courtyard area.

Cooperation between EPA, business owners, developers and the site's PRP allows the many companies on site to remain open for business and helps make new uses possible. Today, site uses include single-family homes, hotels, restaurants and other commercial establishments. Site businesses employ over 500 people and contribute an estimated $12.6 million in annual employment income. In 2017, site businesses generated an estimated $51 million in sales revenue. The combined value of site properties is nearly $99 million. Together the properties generate over $1.3 million in annual property taxes.

Figure 13. Cleanup at the Highway 71/72 Refinery site made construction of this new hotel complex possible (Louisiana).

REDEVELOPMENT IN ACTION

FRUIT AVENUE PLUME

Green, Affordable Housing

The Fruit Avenue Plume Superfund site is located in downtown Albuquerque, New Mexico. Two laundry and dry-cleaning facilities operated above the contaminated area from 1924 to 1972, when a realty company and a development company purchased the properties. The companies demolished the former site buildings to construct a bank parking lot. Dry-cleaning operations and waste disposal practices contaminated groundwater. EPA added the site to the NPL in 1999. Cleanup included treatment of contaminated groundwater, long-term monitoring and groundwater use restrictions.

Collaboration between the New Mexico Environment Department, EPA and a local developer have helped return the site property to use as a green housing development. The development, known as Downtown @700-2nd, opened in March 2010. These affordable housing units exceed baseline Green Communities Criteria established by Enterprise Community Partners, a national non-profit organization focused on affordable housing issues. Green features include a water recycling system and rooftop rainwater collection systems. The building has a large outdoor courtyard with a community garden. A hospitality center operates a coffee shop on site and also provides job training to formerly homeless community members. EPA continues to work with the state and community members supporting reuse opportunities in the area.

Figure 14. Affordable housing development Downtown @700-2nd at the Fruit Avenue Plume site (New Mexico).

REDEVELOPMENT IN ACTION

TEX TIN CORP.

New Bulk Oil Storage Facility

The Tex Tin Corp. Superfund site is located on the banks of Galveston Bay in Texas City, Texas. Copper and tin smelting facilities operated on site from the beginning of World War II until the mid-1980s. A waste oil recovery facility also operated on the northwest corner of the property in the early 1980s. Historical operations and waste disposal practices contaminated soil, sediment and groundwater with hazardous chemicals. EPA added the site to the NPL in 1998. Cleanup actions addressed contaminated groundwater, soil and sediment, waste piles, wastewater treatment ponds, acid ponds and slag piles, and included land and groundwater use restrictions. Cleanup actions also focused on the nearby Swan Lake Salt Marsh Area and affected residential properties. The Swan Lake Salt Marsh Area continues to provide wildlife habitat and serve as a migratory bird flyway. The cleanup of arsenic-contaminated soil in residential areas enabled continued residential use of the site.

After cleanup to encourage community efforts to plan for the site's future use, EPA awarded Texas City a Superfund Redevelopment grant in 2001. After the community identified reuse priorities for the site, EPA issued the nation's first Ready for Reuse (RfR) determination in 2003. The RfR determination stated that as long as certain site conditions were met, the remedy would be protective for industrial uses.

In 2005, the cleaned-up former smelter property was transferred under an EPA prospective purchaser agreement (PPA) from a bankruptcy trust to Phoenix International Terminals (Phoenix). The PPA included covenants not to sue and provisions for subsequent transfer of the covenants to future property owners and site users. EPA's RfR determination and the PPA were both vital to the site's beneficial reuse. In 2010, the Texas City Terminal Railway Company purchased the property from Phoenix, received a transfer of the PPA covenants and pursued redevelopment opportunities at the site.

Figure 15. Tex Tin Corp. Superfund site Excellence in Site Reuse Award Recipients, in 2017 (Texas).[7]

7 From left to right: Carl Edlund, EPA Region 6 Superfund Division Director; Michael Dobbs and Theresa Harper, Port of Texas City, Texas City Terminal Railway Company; Jeff Gifford, VP of Health, Safety, Security and Environment, Genesis Energy, L.P.; Current Mayor Matthew T. Doyle, Texas City, Texas; Former Mayor Carlos Garza, Texas City, Texas; Former Mayor Charles T. "Chuck" Doyle, Texas City, Texas; Robert Piniewski, Project Coordinator, Project Navigator, Ltd.; Edgard Bertaut and Sarah Dalton, Co-Chairs, Tex Tin Settling Defendants; and Danny P. Brown, Project Manager, RECON Services, L.P.

In November 2015, Genesis Energy, L.P. (Genesis), an integrated midstream energy company, signed a long-term lease with Texas City Terminal Railway Company for a portion of the site property. The company chose the site for several reasons. The site was well located, providing direct connectivity with its existing pipeline infrastructure in the area as well as access to other key infrastructure and utilities. The site was also near many of Genesis' production and refining customers.

In May 2016, Genesis began building its Texas City Terminal on site. EPA, the Tex Tin Steering Committee and Genesis coordinated closely during facility planning and construction to ensure the protectiveness of the remedy and the full functionality of the oil terminal and transfer facility. Genesis and its construction contractor used several modified construction techniques to protect the remedy.

The Texas City Terminal opened in May 2017. The facility receives and stores several grades of crude oil produced in the Gulf of Mexico and distributes the oil via pipeline to Houston-area refineries, Texas City refineries and waterborne markets. This significant investment in the site serves a vital role, supporting offshore crude oil producers and oil refineries in the area. The Texas City Terminal and related infrastructure employ nine workers from Texas City and surrounding areas. Genesis also pays property taxes on this previously vacant property, providing revenues that benefit Texas City.

In November 2017, EPA Region 6 presented Excellence in Site Reuse awards to Genesis, the Tex Tin Steering Committee and its remedial contractors, the Texas City Terminal Railway Company, and local officials in recognition of their extensive collaboration, cooperation and leadership throughout the cleanup and redevelopment of the Tex Tin Corp. Superfund site.

REDEVELOPMENT IN ACTION

VERTAC, INC.

Police, Fire and Other Public Facilities Development

The 193-acre Vertac, Inc. site is located 15 miles northeast of Little Rock in Jacksonville, Arkansas. The federal government built the first industrial facilities at the site during the 1930s and 1940s as part of a sprawling munitions complex. Over the next four decades, various chemical manufacturing facilities produced insecticides and herbicides on site. Facility operations and improper waste disposal contaminated soil and groundwater. EPA placed the site on the NPL in 1983.

Cleanup included demolition of on-site buildings and equipment, consolidation and disposal of waste and debris in an on-site hazardous waste landfill, and the excavation and disposal of contaminated soil. Groundwater treatment is ongoing. As part of the cleanup, EPA built several drum storage sheds and other structures. The local government recognized early on that retaining the site's infrastructure could serve as the foundation for reuse. Following the use of the structures during cleanup, EPA determined they were safe for public use and officially released them for reuse. Shortly thereafter, in 2000, the locality acquired the northern part of the site property and began using several of the structures to house the local government's recycling center and Street Department. An EPA Superfund Redevelopment Initiative pilot grant enabled the city to evaluate several additional reuse options.

Today, site reuses include the recycling center and office space and storage for the city's Street Department as well as a fire department training facility, a driver training pad, a recycling education park, a police firing range and a public safety building. The public safety building includes a police and fire training center, Jacksonville Police Department facilities, and an emergency operations center and community safe room. The city's recycling center serves 10,000 residents and recycles 1.5 million pounds of materials each year. By diverting these materials from a landfill, the recycling center saves the city an estimated $50,000 annually. City government entities operating at the site employ 134 people and provide over $6 million in estimated annual employment income. The combined value of site properties exceeds $3.6 million.

Figure 16. This burn tower is part of the fire department training facility at the Vertac, Inc. site (Arkansas).

REDEVELOPMENT ON THE HORIZON IN REGION 6

TRANSFORMING A FORMER ZINC SMELTER INTO ECONOMIC DEVELOPMENT AND PUBLIC HEALTH

From 1916 to 1968, the Eagle-Picher Mining and Smelting company operated a smelter at the 70-acre Eagle-Picher Henryetta site in Henryetta, Oklahoma. The company donated the smelter property to the city of Henryetta in 1974. Unaware of metals contamination in the waste piles, the city used soil from the site as fill material at locations across the community, including neighborhoods, schools and parks.

Working in partnership with the Oklahoma Department of Environmental Quality (ODEQ), EPA's cleanup focused on removing contaminated soils and wastes and addressing residential areas affected by the site. Contaminated materials were consolidated on site. The remedy also included placement of a clay cap, cover soil and vegetation over the contaminated material to protect public health.

During cleanup, EPA and ODEQ made sure the remedy would be compatible with community reuse goals, grading the central 26-acre Central Plateau portion of the site and putting in clean utility corridors to facilitate future commercial and industrial uses. The city secured $465,000 in state transportation and environmental grants as well as federal economic development grants from the U.S. Department of Housing and Urban Development to support the development of Shurden Leist Industrial Park at the site. The first industrial tenant, a motorcycle manufacturing company, opened for business in 2006.

In 2015, the community sought to locate an additional use – new health care facilities – at the site. The rural health care clinic would provide primary health, dental health and behavioral health care services. EPA participated in community information sessions and issued a Ready for Reuse Determination to support community efforts to leverage resources for the clinic.

In May 2016, the U.S. Department of Health and Human Services (HHS) awarded the organization a $1 million grant for the project.[8] The organization worked closely with ODEQ and EPA on the construction of the health clinic to ensure the protectiveness of EPA's remedy. In October 2018, EPA, ODEQ and the city of Henryetta celebrated the clinic's opening.

Figure 17. Above: The Eagle-Picher Henryetta site before cleanup. Below: Color rendering of the planned rural health care center on site (Oklahoma).[9]

8 This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under C8DCS29734, Health Infrastructure Investment Program in the amount of $1 million; 24.46 percent of this project is funded through non-federal and local resources. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government. The total approximate cost for this project is $1.7 million.

9 Image used with permission of East Central Oklahoma Family Health Center.

CONCLUSION

EPA works closely with its partners at Superfund sites across Region 6 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 44 NPL sites and six 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.

Figure 18. Community lake at the RSR Corporation site (Texas).

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 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 Site Redevelopment Resources

EPA Region 6 Superfund Redevelopment Initiative 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-initiative/find-sites-reuse

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

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

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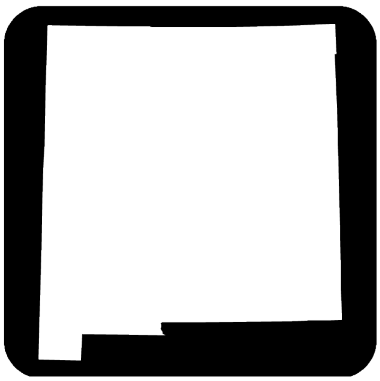
STATE REDEVELOPMENT PROFILES





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 and continued use in Arkansas.

Businesses and Jobs

EPA has collected economic data for six businesses and organizations operating on three sites in reuse and continued use in Arkansas.

Table 3. Detailed Site and Business Information for Sites in Reuse and Continued Use in Arkansas (2017)

	Sites	Sites with Businesses	Businesses[a]	Total Annual Sales[b]	Total Employees	Total Annual Employee Income
In Reuse	*4*	*2*	*5*	*$656,000*	*135*	*$6 million*
In Continued Use	*1*	*1*	*1*	*$12 million*	*30*	*$2 million*
In Reuse and in Continued Use	*0*	*0*	*0*	*$0*	*0*	*$0*
Total	*5*	*3*	*6*	*$13 million*	*165*	*$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 one Superfund site in reuse and continued use in Arkansas. This site spans six property parcels and 195 acres.

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

Total Land Value (1 site)	Total Improvement Value (1 site)	Total Property Value (1 site)	Total Annual Property Taxes (1 site)
$2 million	*$2 million*	*$4 million*	*$17,000*

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which was 2017 for tax data and not specified for property value data.

Figure 19. Aerial view of Frit Industries site. Imagery © 2018 Google.

Did You Know?

Since 1973, Frit Industries has made micronutrients and additives for fertilizer on site. This business employs 30 people and generates nearly $12 million in annual sales revenue. EPA deleted the site from the Superfund program's NPL in 1997.

LOUISIANA REDEVELOPMENT PROFILE

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

Businesses and Jobs

EPA has collected economic data for 63 businesses and organizations operating on five sites in reuse and continued use in Louisiana.

Table 5. Detailed Site and Business Information for Sites in Reuse and Continued Use in Louisiana (2017)

	Sites	Sites with Businesses	Businesses[a]	Total Annual Sales[b]	Total Employees	Total Annual Employee Income
In Reuse	7	3	7	$9 million	280	$20 million
In Continued Use	1	0	0	$0	0	$0
In Reuse and in Continued Use	2	2	56	$52 million	515	$13 million
Total	10	5	63	$61 million	795	$33 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 four Superfund sites in reuse and continued use in Louisiana. These sites span 591 property parcels and 281 acres.

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

Total Land Value (3 sites)	Total Improvement Value (3 sites)	Total Property Value (4 sites)	Total Annual Property Taxes (4 sites)
$24 million	$91 million	$115 million	$1 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 2016 to 2018.

Figure 20. The machine shop at the Delatte Metals site.

Did You Know?

During the 1960s, two battery recycling and smelting operations were active at the Delatte Metals site in Ponchatoula, Louisiana. After cleanup, EPA deleted the site from the Superfund program's NPL in 2005. A residence and machine shop are currently located on site.

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 eight 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 and continued use in New Mexico.

Businesses and Jobs

EPA has collected economic data for 13 businesses and organizations operating on two sites in continued use in New Mexico.

Table 7. Detailed Site and Business Information for Sites in Reuse and Continued Use in New Mexico (2017)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	*6*	*0*	*0*	*$0*	*0*	*$0*
In Continued Use	*2*	*2*	*13*	*$16 million*	*106*	*$4 million*
In Reuse and in Continued Use	*0*	*0*	*0*	*$0*	*0*	*$0*
Total	*8*	*2*	*13*	*$16 million*	*106*	*$4 million*

[a] Two sites are federal facilities. Federal facility sites are excluded from all other detailed site and business data presented above.
[b] Business information is not available for all businesses on all Superfund sites in reuse or continued use.

Property Values and Property Tax Revenues

Property value and tax data were not available for sites in reuse and continued use in New Mexico.

Figure 21. Univar USA continues to operate on the South Valley site.

Did You Know?

Past manufacturing practices at the South Valley site in Albuquerque, New Mexico, resulted in soil and groundwater contamination. The successful cleanup enabled Univar USA to continue to operate on site. When General Electric Aviation closed its plant at the site in 2011, the company recycled or reused all usable building materials, keeping 14,000 tons of materials out of local landfills. Bernalillo County has plans for a connector road between Interstate 25 and the Albuquerque airport that will cross the site.

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 four 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 and continued use in Oklahoma.

Businesses and Jobs

EPA has collected economic data for 18 businesses and organizations operating on two sites in reuse and continued use in Oklahoma.

Table 8. Detailed Site and Business Information for Sites in Reuse and Continued Use in Oklahoma (2017)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	1	1	4	$9 million	78	$4 million
In Continued Use	1	0	0	$0	0	$0
In Reuse and in Continued Use	2	1	14	$150 million	324	$21 million
Total	4	2	18	$159 million	402	$25 million

[a] One site is a federal facility. Federal facility sites are excluded from all other detailed site and business data presented above.
[b] Business information is not available for all businesses on all Superfund sites in reuse or continued use.

Property Values and Property Tax Revenues

EPA has collected property value data for two Superfund sites in reuse and continued use in Oklahoma. These sites span 40 property parcels and 235 acres.

Table 9. Property Value and Tax Information for Sites in Reuse and Continued Use in Oklahoma[a]

Total Land Value (2 sites)	Total Improvement Value (2 sites)	Total Property Value (2 sites)	Total Annual Property Taxes (2 sites)
$3 million	$17 million	$20 million	$252,000

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which was 2017 for all data collected.

Figure 22. Baker Hughes facility at the Sand Springs Petrochemical Complex site.

Did You Know?

Several companies continue to operate at the Sand Springs Petrochemical Complex site in Sand Springs, Oklahoma. After cleanup, EPA deleted the site from the Superfund program's NPL in 2000. A rail company and the city of Sand Springs plan to reuse about 5 acres of the site for a rail facility. New owners recently purchased an old lumberyard on the northern part of the site and plan to redevelop it.

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 23 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 and continued use in Texas.

Businesses and Jobs

EPA has collected economic data for 115 businesses and organizations operating on 13 sites in reuse and continued use in Texas.

Table 10. Detailed Site and Business Information for Sites in Reuse and Continued Use in Texas (2017)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	*10*	*6*	*14*	*$170 million*	*369*	*$22 million*
In Continued Use	*8*	*3*	*27*	*$178 million*	*526*	*$22 million*
In Reuse and in Continued Use	*5*	*4*	*74*	*$72 million*	*1,135*	*$45 million*
Total	*23*	*13*	*115*	*$420 million*	*2,030*	*$89 million*

[a] Five sites are federal facilities. Federal facility sites are excluded from all other detailed site and business data presented above.
[b] Business information is not available for all businesses on all Superfund sites in reuse or continued use.

Property Values and Property Tax Revenues

EPA has collected property value data for six Superfund sites in reuse and continued use in Texas. These sites span 1,558 property parcels and 1,605 acres.

Table 11. Property Value and Tax Information for Sites in Reuse and Continued Use in Texas[a]

Total Land Value (6 sites)	Total Improvement Value (6 sites)	Total Property Value (6 sites)	Total Annual Property Taxes (6 sites)
$66 million	*$228 million*	*$294 million*	*$3 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 2017 to 2018.

Figure 23. The car auction business at the South Cavalcade Street site.

Did You Know?

A wood-treating facility and coal tar distillation plant operated at the South Cavalcade Street site in Houston, Texas, for over 50 years. Commercial and industrial businesses, including a distribution company, a car auction and a pallet supplier, now operate on site. These businesses employ 82 people. They provide close to $4 million in estimated annual income and generate over $102 million in estimated annual sales.

SOURCES

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) (www.dnb.com) database. EPA also gathers information on businesses and corporations from D&B. D&B maintains a database of more than 225 million active and inactive businesses worldwide.

When Hoovers/D&B research was unable to identify employment and sales volume for on-site businesses, EPA used the ReferenceUSA database (resource.referenceusa.com). In cases where ReferenceUSA did not include employment and sales volume for on-site businesses, EPA used the Manta database (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 2017. Estimated annual employment income was calculated using 2017 jobs data and BLS average weekly wage data for those jobs from 2016 (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.

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 2016 to 2018 where date information was provided. All figures presented have been rounded for the convenience of the reader. Federal facility sites are excluded from all property value and tax calculations.

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 Initiative case studies as well as other resources. Links to EPA's Superfund Redevelopment Initiative case studies and other resources are included below.

EPA Resources

Bayou Bonfouca. 2014. Return to Use Initiative Demonstration Project. semspub.epa.gov/src/document/06/300140.

Highway 71/72 Refinery. 2015. Reuse and the Benefit to the Community, Highway 71/72 Refinery. semspub.epa.gov/src/document/06/100000020.

State Marine of Port Arthur and Palmer Barge Line. Reuse and the Benefit to the Community, State Marine of Port Arthur and Palmer Barge Line. semspub.epa.gov/src/document/HQ/100000619.

Vertac, Inc. 2012. Reuse and the Benefit to the Community, Vertac, Inc. semspub.epa.gov/src/document/06/300260.

Other Resources

Bob Warren. "Slidell boat launch closed for marina construction." The Times Picayune. Updated September 21, 2017. www.nola.com/northshore/index.ssf/2017/09/marina_construction_closes_sli.html.

Back cover photos: RSR Corporation (Texas), Fruit Avenue Plume (New Mexico), Bayou Verdine (Louisiana)



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October 2018
www.epa.gov/aboutepa/epa-region-6-south-central