



Superfund Sites Work for Communities:

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

Figure 1: Goodwill Industries of Dallas's main processing facility on the RSR Corporation site (Texas)



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Preface

Every day, EPA's Superfund program makes a visible difference in communities nationwide. The revitalization of communities affected by contaminated lands is a key part of Superfund's mission, delivering significant benefits one community at a time, all across the country. Through EPA's Superfund Redevelopment Initiative, the Agency contributes to the economic vitality of these communities by supporting the return of sites to productive use. These regional profiles highlight these community-led efforts in action, as EPA launches a new era of partnerships and works toward a sustainable future.

Introduction

EPA Region 6 (South Central) 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 Region 6 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 can often restore value to site properties and surrounding communities that have been negatively affected by contamination. For example, the cleanup of the RSR Corporation site in Dallas, Texas – which addressed a smelter, slag areas and contaminated residential properties – has played an important role in the ongoing revitalization of West Dallas. Site reuse can revitalize a local economy with jobs, new businesses, tax revenues and local spending. Reuse of Superfund sites can yield other important social and environmental benefits for communities as well. Through programs like the Superfund Redevelopment Initiative (SRI), EPA Region 6 helps communities reclaim cleaned up Superfund sites. Factoring in future use of Superfund sites as part of the cleanup process helps pave the way for their safe reuse. In addition, EPA Region 6 works closely with state agencies and local officials to remove barriers that have kept many Superfund sites vacant and underused for decades. EPA Region 6 also works to ensure that businesses on properties cleaned up under the Superfund program can continue operating safely during site investigations and cleanup. This continuity enables these businesses to remain as a source of jobs and income for communities.



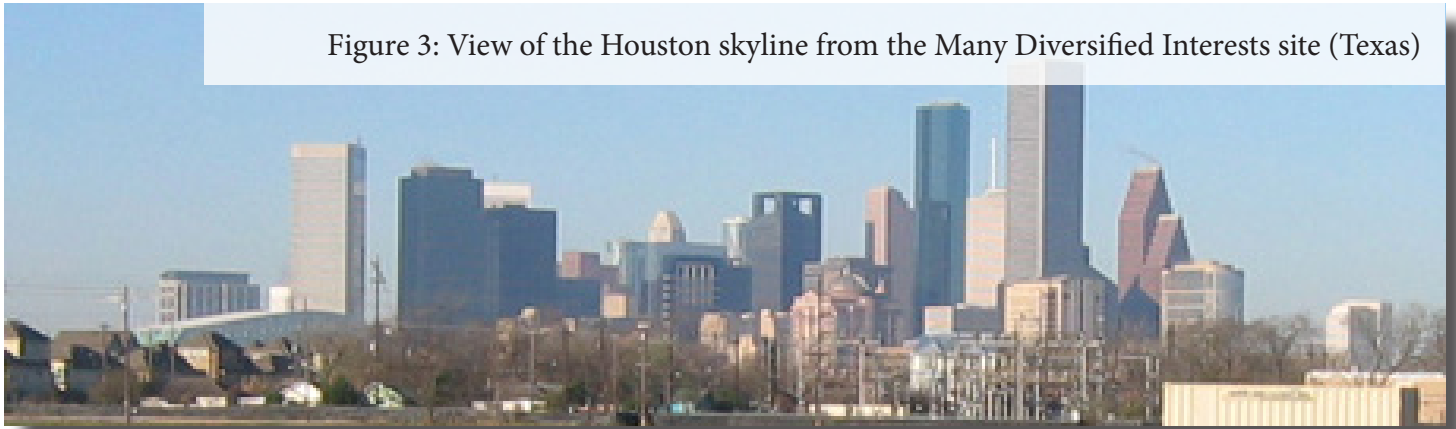
Superfund sites across Region 6 are now home to restaurants, car dealerships, hotels and a range of other uses. Public services at current and former Superfund sites in Region 6 offer housing assistance, recycling services, public health services, sanitation and safety training. A municipal airport is located at one site. People live in single-family homes and apartments on several sites; one apartment complex is green building certified for its sustainability, by Enterprise Community Partners, Inc., a national non-profit organization focused on affordable housing. Some sites are now locations for renewable energy projects harnessing wind and solar power; another site is part of an innovative pilot project that is converting landfill gas into liquid fuel and other products. Others host ecological preserves, wildlife habitat, a boat launch and a riverfront walkway. The on-site businesses and organizations on current and former Region 6 Superfund sites provide over 2,100 jobs and contribute \$66 million in annual employment income for residents in Region 6.¹

This profile looks at how reuse activities at Superfund sites make a difference in communities in Region 6. In particular, it describes some of the beneficial effects of reuse 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 approximately every two years. The reported beneficial effects may increase or decrease from previous profiles due to changes in the number of sites in reuse or continued use, changes in the number of on-site businesses, changes in data availability, and changes in individual-level business or property value data. Figures presented represent only a subset of all Superfund sites in reuse or continued use in Region 6.

¹ Business figures represent only a subset of the beneficial effects of sites in reuse or continued use in Region 6. There are 21 Superfund sites in reuse or continued use in Region 6 for which EPA does not have business data, including 6 NPL and two non-NPL federal facilities. Not all sites in reuse involve an on-site business or other land use that would employ people on the site. Several sites without businesses have beneficial effects that are not easily quantified, such as properties providing ecological or recreational benefits (parks, wetlands, ecological habitat, open space, etc.).

Support for Superfund Reuse

Figure 3: View of the Houston skyline from the Many Diversified Interests site (Texas)



EPA Region 6 is committed to making a visible difference in communities through the cleanup and reuse of Superfund sites. In addition to protecting the environment and human health through the Superfund program, Region 6 partners with stakeholders to encourage reuse opportunities at Superfund sites. EPA Region 6 helps communities and cleanup managers consider reuse during cleanup planning and evaluate remedies already in place to ensure appropriate reuse 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.

Reuse support efforts in EPA Region 6 include:

- Identifying and evaluating local land use priorities to align these priorities with site cleanup plans through the reuse planning process.
- Facilitating cleanup and reuse 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 reuse forward at sites.
- Making efforts to help address communities' and developers' liability, safety and reuse concerns related to Superfund site reuse through development of educational materials, comfort letters, developer agreements and environmental status reports – known as Ready for Reuse (RfR) Determinations – that provide information about the appropriate use of a site.
- Supporting partnerships with groups and agencies committed to putting Superfund sites back into use such as the U.S. Fish and Wildlife Service (USFWS).
- Developing reuse fact sheets, videos, websites, reuse case studies and Return to Use Demonstration Project summaries to share opportunities and lessons learned associated with Superfund redevelopment.

All of these efforts have helped build expertise across Region 6, making it easier to consider future use of Superfund sites prior to cleanup and to identify opportunities to remove reuse barriers. These efforts also help other communities, state agencies, potentially responsible parties and developers in better understanding potential future uses for Superfund sites. In addition, they facilitate early engagement in the cleanup process, ensuring 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.

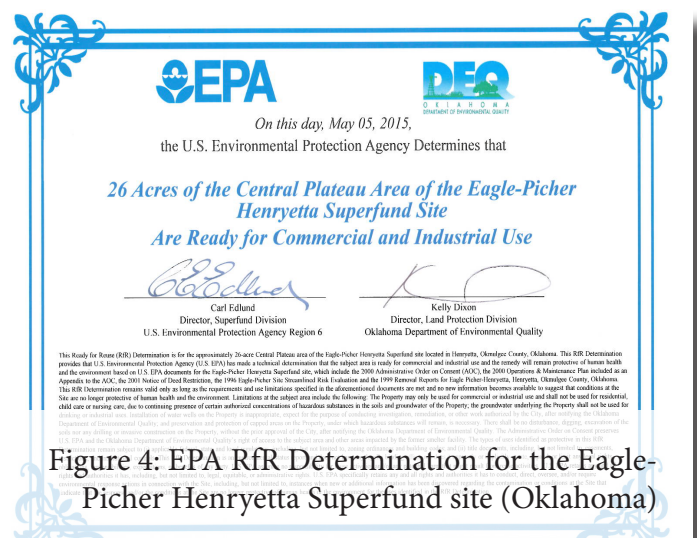


Figure 4: EPA RfR Determination for the Eagle-Picher Henryetta Superfund site (Oklahoma)

Superfund Reuse in Region 6 : The Big Picture

EPA takes immediate action at contaminated sites when warranted through short-term cleanup actions, also called removal actions. After these immediate actions, EPA refers sites warranting long term cleanup to EPA's remedial program or state programs for cleanup. EPA has placed 130 sites in Region 6 on the National Priorities List (NPL). The NPL is a list of the most serious sites EPA targets for further investigation and possible remediation through the Superfund program. Once EPA places a site on the NPL, the Agency studies the type and amount of contamination at the site, identifies technologies that could address the contamination, and evaluates the alternative cleanup approaches. EPA next proposes a cleanup plan. After collecting public input, the Agency issues a final cleanup plan. EPA then cleans up the site or oversees the cleanup activities.²



Figure 5: Vertac, Inc. site (Arkansas)

Whenever possible, EPA seeks to integrate reuse priorities into site cleanup plans. In EPA Region 6, 36 NPL sites and five non-NPL Superfund sites have either new uses in place or uses that have remained in place since before cleanup.³ Many of these sites have been redeveloped for commercial, industrial and recreational purposes. Others have been redeveloped for residential, public service and ecological uses. Businesses and other organizations also use all or parts of other sites for stores, hotels and renewable energy projects.

Redevelopment of Superfund sites in Region 6 has not only provided jobs and income to the neighborhoods and cities affected by the sites, but also turned areas that were community burdens into a source of local pride. The reuse and continued use of many sites has increased quality of life for nearby residents as well as provided local services. The following sections take a closer look at the impacts of businesses located at current and former Superfund sites in Region 6.

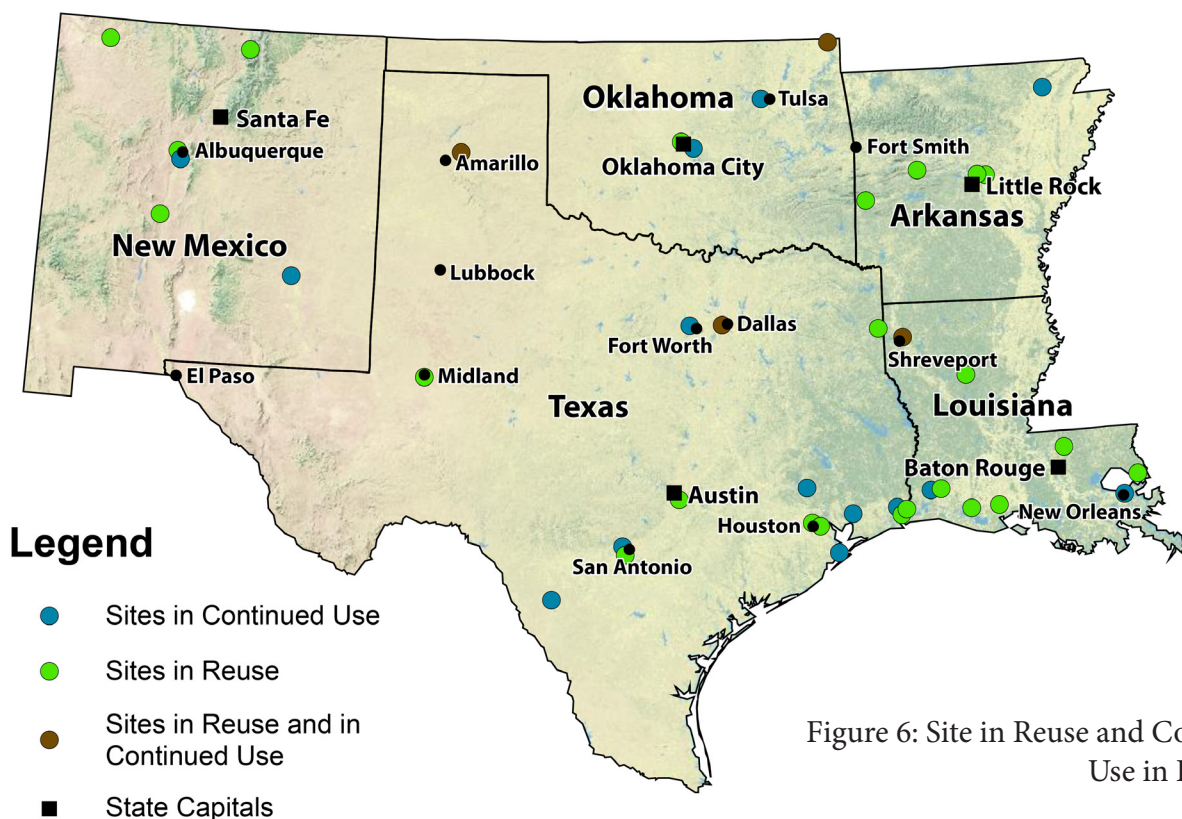


Figure 6: Site in Reuse and Continued Use in Region 6

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

³ Two of the non-NPL Superfund sites are proposed NPL sites. EPA proposed these two sites for the NPL in 1995. EPA provides oversight of the sites' cleanups.

Beneficial Effects of Superfund Site Reuse in Region 6

Businesses and Jobs

EPA collected economic data for 130 businesses, government agencies and civic organizations operating on 18 NPL sites and two non-NPL Superfund sites in reuse and continued use in Region 6.⁴ See the State Reuse Profiles (pp. 13-17) for each Region 6 state’s reuse details. Businesses and organizations located on these sites fall within a number of different sectors, including hotels, professional trade, industrial trade and retail trade. Businesses and organizations located on current and former Region 6 Superfund sites include hotels, schools, grocery stores, restaurants, civic and social organizations, freight transportation facilities, and health care centers and manufacturing facilities.

In total, businesses and organizations located on these sites employ over 2,100 people, contributing an estimated \$66 million in annual employment income with about \$117 million in estimated annual sales. Employee income earned helps inject money into local economies. It also helps generate state revenue through personal state income taxes. In addition to helping local communities by providing employment opportunities, these businesses 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. In addition, most businesses operating on sites in Region 6 generate tax revenues through payment of state corporate income or related taxes. More detailed information is presented in Table 1.⁵

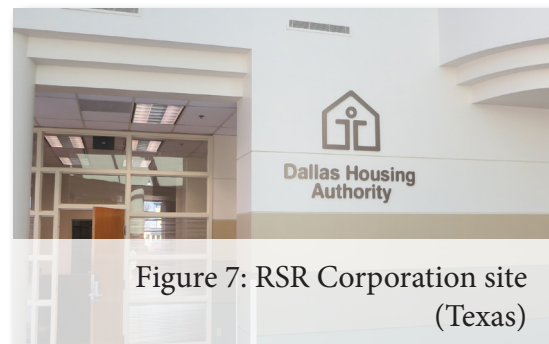


Figure 7: RSR Corporation site (Texas)



Table 1. Site and business information for Region 6 sites in reuse and continued use (2014)

	Sites	Sites with Businesses ^a	Businesses ^b	Total Annual Sales ^c	Total Employees	Total Annual Employee Income
In Reuse	23	10	22	\$40 million	416	\$15 million
In Continued Use	14	8	35	\$24 million	257	\$12 million
In Continued Use and In Reuse	4	2	73	\$53 million	1,456	\$39 million
Total	41	20^d	130	\$117 million	2,129	\$66 million

^a Also includes other organizations such as government agencies, nonprofit organizations and civic institutions.
^b Business information is not available for all businesses on all Superfund sites in reuse or continued use.
^c For information on the collection of businesses, jobs and sales data, see the “Sources” section of this profile.
^d Business figures represent only a subset of the beneficial effects of sites in reuse or continued use in Region 6. There are 21 additional Superfund sites in reuse or continued use in Region 6 for which EPA does not have business data, including six NPL and two non-NPL federal facilities. Several sites without businesses have beneficial effects that are not easily quantified, such as properties providing ecological or recreational benefits (parks, wetlands, ecological habitat, open space, etc.).

⁴ Business figures represent only a subset of the beneficial effects of sites in reuse or continued use in Region 6. There are 21 additional Superfund sites in reuse or continued use in Region 6 for which EPA does not have business data, including six NPL and two non-NPL federal facilities. Several sites without businesses have beneficial effects that are not easily quantified, such as properties providing ecological or recreational benefits (parks, wetlands, ecological habitat, open space, etc.).

⁵ For additional information on the collection of businesses, jobs and sales data, see the “Sources” section of this report.

Property Values and Property Tax Revenues

Properties cleaned up under the Superfund program and returned to use may increase in value. This increased value can boost property tax revenues, which help pay for local government operations, public schools, transit systems and other public services.

Identifying increases in property values and property taxes following cleanup and reuse is challenging due to insufficient data on historical property values and the difference in timing of events at sites and frequency and timing of property value assessments by local agencies. Likewise, many factors affect property values, including external economic and neighborhood factors not related to a site's contamination or Superfund site status. It is also difficult to isolate the effects of Superfund cleanup and reuse using current property values. However, these values give insight into the current value of Superfund properties and the potential loss in economic value if these properties were not cleaned up and available for reuse or continued use.

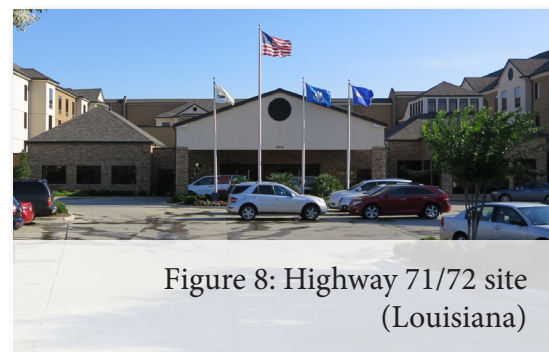


Figure 8: Highway 71/72 site
(Louisiana)

EPA has collected property value tax data for four sites in reuse or continued use in Region 6: the RSR Corporation and South Cavalcade sites in Texas, the Highway 71/72 Refinery site in Louisiana and the Vertac, Inc. site in Arkansas. The RSR Corporation site, for example, spans over 1,500 property parcels and 900 acres and has a total property value of \$235 million. The properties at the RSR Corporation site have a total land value of \$178 million and a total improvement value of \$57 million. Properties at the RSR Corporation site generate a combined \$2 million in local property taxes annually. Results for the RSR Corporation site are presented below.

Table 2. Property value and tax information for the RSR Corporation site^a

Total Land Value	Total Improvement Value	Total Property Value	Total Annual Property Taxes
\$178 million	\$57 million	\$235 million	\$2 million

^a Results are based on an EPA SRI effort in 2015 to collect on-site property value and property taxes. The property value and tax amounts reflect the latest property value year and tax data year available in county assessor data sets. For additional information, see the "Sources" section of this profile.

Sites in Reuse and Continued Use: A Closer Look

In Reuse: There is a new land use or uses on all or part of a site; either the land use has changed (e.g., from industrial use to commercial use) or the site is now in use after being vacant.

In Continued Use: Historical uses at a site remain active; these uses were in place when the Superfund process started at the site.

In Reuse and Continued Use: Part of a site is in continued use and part of the site is in reuse.

Region 6 Site Examples

- ***In Reuse:*** Vertac, Inc. (Arkansas) – formerly the location of industrial facilities, the site now supports a range of public service uses.
- ***In Continued Use:*** Sand Springs Petrochemical Complex (Oklahoma) – industrial operations have continued to operate at the site since before cleanup.
- ***In Reuse and Continued Use:*** Tar Creek (Ottawa County) (Oklahoma) – long-time residential, commercial and public uses are ongoing across various parts of the site; new land uses include agricultural uses.

Recreational and Ecological Benefits

In addition to serving as locations for commercial developments, retail centers and industrial facilities, some Region 6 sites in reuse provide recreational and ecological benefits. Recreational and ecological reuses help attract visitors and residents, and indirectly contribute to local economies. The Longhorn Army Ammunition Plant site in Karnack, Texas, for example, is now part of a national wildlife refuge. In 2016, construction of a multi-million dollar marina will begin on the Bayou Bonfouca site in Slidell, Louisiana. The project includes floating docks, piers, new sidewalks and more to encourage recreational boating on Bayou Bonfouca. Other sites, such as the Bayou Verdine site in Lake Charles, Louisiana, the Bailey Waste Disposal site in Bridge City, Texas, and the Tex-Tin Corp. site in Texas City, Texas, also support wetlands.



Figure 9: Bayou Verdine site (Louisiana)

Benefits from Alternative Energy Projects

Alternative energy projects provide a range of economic benefits. They generate 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 opportunities for site owners and communities; and contribute to broader economic development planning. Several efforts in Region 6 have encouraged opportunities for alternative energy project development on Superfund and other impaired sites. In 2014, EPA Region 6 awarded Waste Management of Oklahoma the first Superfund “Greenovations Award” for the company’s efforts to pilot an innovative landfill gas-to-fuel project at the Mosley Road Sanitary Landfill site in Oklahoma as well as other site-related efforts.



Figure 10: Methane gas-to-energy plant near the Mosley Road Sanitary Landfill site (Oklahoma)

Why Are Wetlands Economically Important?

Wetlands provide a wide variety of benefits. The combination of shallow water, high levels of nutrients and primary productivity is ideal for the development of 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 act as filters for future drinking water. They 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 fact sheet.

See also: EPA. Why are wetlands important? Web page.
www.epa.gov/wetlands/why-are-wetlands-important

See also: National Oceanic and Atmospheric Administration. Carbon Sequestration 101.
www.habitat.noaa.gov/coastalcarbonsequestration.html

Reuse in Action

RSR Corporation – Jobs, Housing and Area Revitalization

The RSR Corporation site is located in a residential and commercial area of West Dallas, Texas. The site spans a former lead smelter, related industrial properties, a long-time neighborhood, a former public housing area and several landfills. RSR Corporation operated a lead smelter on site from the 1920s until 1984. The company disposed of waste materials on site and in area landfills. Contamination of the surrounding community resulted from the fallout of air emissions from the lead smelter. Studies confirmed high blood-lead levels for residents and children living near the smelter. RSR Corporation undertook initial cleanup actions in the early 1980s. EPA, with support from the state, undertook cleanup actions in residential areas northwest of the smelter in the early 1990s. During this time, the Dallas Housing Authority (DHA) removed lead-contaminated soil and buildings from a large DHA public housing area northeast of the smelter. EPA placed the site on the NPL in 1995 for the cleanup of remaining areas.

Cleanup of these areas resulted in lowered blood-lead levels for children and residents in West Dallas. It also facilitated redevelopment. Portions of the DHA area now include new affordable housing, commercial businesses, social service organizations, and agencies and schools. In 2002, Goodwill Industries of Dallas completed its 275,000-square-foot headquarters on site. In 2013, Goodwill Industries of Dallas placed over 1,000 people into jobs that provided \$15 million in income and benefits.⁶ Cleanup of other portions of the site, including the former smelter facility and disposal areas, is now complete. EPA issued RfR Determinations for the smelter facility and disposal areas in 2006 to facilitate future redevelopment.

Ongoing uses include churches, parks, primary and secondary schools, commercial businesses and a community YMCA. Together, site businesses and organizations employ over 960 people and contribute over \$27 million in annual employment income to the local community. The extensive investigations and cleanup overseen by EPA, in cooperation with the State of Texas and the City of Dallas, have also played an important part in ongoing efforts by local agencies, community development organizations, business leaders and residents to revitalize greater West Dallas. In November 2015, EPA recognized the efforts of the Dallas Housing Authority and Goodwill Industries of Dallas with its “Excellence in Site Reuse” award.

Vertac, Inc. – New and Expanded Municipal Facilities

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. Improper waste disposal and production control by various chemical manufacturers led to soil and groundwater contamination. EPA placed the site on the NPL in 1983.

The City of Jacksonville recognized early on that retaining the site’s infrastructure could serve as the foundation for reuse. Following surface cleanup activities, the City acquired the northern part of the site property in 2000. An EPA SRI pilot



Figure 11: RSR Corporation site (Texas)

“The Superfund cleanup has been critical to the revitalization of the area.”

**- Tim Lott, Vice President of
Capital Development,
Dallas Housing Authority**

“This project shows the dramatic transformations that happen when the Superfund program meets a strong and engaged community committed to redevelopment. Innovative and beneficial reuse of Superfund sites, such as this one, supports economic growth and a more sustainable community.”

**- Ron Curry,
EPA Regional Administrator**

⁶ Goodwill Industries of Dallas. Organization Highlights. www.goodwilldallas.org.

grant enabled the City to evaluate several reuse options. Today, site reuses include a 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, police firing range and a public safety building. The public safety building includes a police and fire training center, City of Jacksonville Police Department facilities, and an emergency operations center and community safe room. The City's new 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. One hundred forty-six people are employed on site, providing annual employment income of over \$3.6 million. The City is also exploring opportunities to turn part of the site into community green space with sidewalks and picnic tables.



Figure 12: Vertac, Inc. site (Arkansas)

"We're very proud of what's been accomplished at the site. It is a success story for our community. We turned lemons into lemonade."

**-Gary Fletcher,
Jacksonville Mayor**

Highway 71/72 Refinery – New Hotel Complex

The 215-acre Highway 71/72 Refinery site is located in Bossier City, near Shreveport, Louisiana. Between 1923 and 1948, site uses included an oil refinery and a petroleum storage and distribution facility. Following dismantling and sale of the refinery in the mid-1950s, on-site construction began for the I-20 interstate highway corridor. The site owner began voluntary cleanup efforts in 1966. Soon after initial cleanup and construction of the I-20 corridor, redevelopment of the site increased.

After the discovery of additional contamination in the mid-1980s, EPA and community leaders implemented a cleanup approach that took the site's residential and business areas into account. The cleanup plan included the removal of contaminated material, groundwater cleanup, monitoring and use restrictions, indoor air pollution mitigation, and any necessary corrective action for all site-related contamination discovered during future earthmoving operations. EPA is addressing the site through an alternative approach, which uses the same investigation and cleanup process and standards used for sites listed on the NPL. EPA allows structures protective of human health and the environment to remain on site. EPA requires additional soil cleanup only if parties discover buried waste during construction. For example, the removal of the former hotel on site allowed cleanup crews to access buried refinery waste, clearing the way for construction of the new hotel complex after cleanup. Cooperation between EPA, business owners, developers and the site's responsible party allows the many companies on site to remain open for business, and helps make possible the construction of new uses.



Figure 13: Highway 71/72 Refinery site (Louisiana)

Today, site uses include single-family homes, hotels, restaurants and other commercial establishments. More than 50 on-site businesses employ nearly 500 people and contribute an estimated \$12 million in annual employment income. Site uses also help generate property tax revenues. The property previously occupied by a Holiday Inn hotel, had an estimated total property value of about \$2 million and generated just over \$31,000 in annual tax revenues in 2011. After cleanup and redevelopment of the property, there was a significant increase in both property and tax values. Today, the new hotel complex and surrounding property has an estimated value of over \$16 million, generating over \$290,000 in annual property tax revenue.

Bayou Bonfouca – New Waterfront Recreation Opportunities

The 54-acre Bayou Bonfouca Superfund site is located in the City of Slidell in St. Tammany Parish, Louisiana. Beginning in 1882, various 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 worked together on a cleanup and restoration plan. The cleanup decontaminated 170,000 cubic yards



Figure 14: Bayou Bonfouca site (Louisiana)

of sediments, treated 17.6 million gallons of contaminated groundwater, and recovered 44,500 gallons of creosote oil. Today, project outcomes include 1.5 miles of restored bayou wetlands, waterfront recreation and a public boat launch on Lake Ponchartrain. In 2012, the City of Slidell received funding from the United States Fish and Wildlife Service (USFWS) to build a multi-million-dollar marina that will include docks, boat slips and new walkways. Construction of the marina is expected to begin in 2016. Site owners also donated 54 acres of waterfront property to the City. Buildings on the property now host offices for the Slidell Sewer and Public Works departments.

Fruit Avenue Plume – New Affordable Housing

The Fruit Avenue Plume Superfund site consists of contaminated groundwater under part of downtown Albuquerque, New Mexico. Between 1924 and 1958, a local business owner operated Sunshine Laundry above the contaminated area. In 1940, the owner expanded laundry services to include dry cleaning services. In April 1989, routine sampling at a nearby supply well by the City of Albuquerque found groundwater contamination. Site investigators determined that dry cleaning processes were the cause of the contamination. EPA added the site to the NPL in October 1999. The cleanup plan included soil and hot spot treatment and groundwater restoration. Cleanup crews completed work in 2006.



Figure 15: Fruit Avenue Plume site (New Mexico)

Since then, 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. These affordable housing units exceed baseline Green Communities Criteria established by Enterprise Community Partners, Inc., a national non-profit organization focused on affordable housing issues.⁷ Green features include solar power, 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.

Beneficial Effects of Affordable Housing

Affordable housing developments are located on both the RSR Corporation and Fruit Avenue Plume sites in Region 6. Affordable housing provides renters and homebuyers with a variety of benefits. It can make it easier for individuals and families to pay for priority goods and services such as healthy meals and medical care. It can strengthen child development and school performance. More broadly, new affordable housing can boost local spending, create jobs, reduce foreclosures and provide a regional competitive advantage in efforts to bring new businesses to town.

For more information, see: Center for Housing Policy. The Role of Affordable Housing in Creating Jobs and Stimulating Local Economic Development: A Review of the Literature. 2011. www2.nhc.org/media/files/Housing-and-Economic-Development-Report-2011.pdf.

⁷ Learn more about the Enterprise Community Partners' Green Communities Criteria. www.enterprisecommunity.com/solutions-and-innovation/enterprise-green-communities

State Reuse Profile: Arkansas

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. EPA has collected economic data for five businesses and organizations operating on three sites in reuse and continued use in Arkansas. The businesses and organizations employ over 175 people and contribute an estimated \$5.5 million in annual employment income.

Table 3. Detailed site and business information for Superfund sites in reuse and continued use in Arkansas (2014)

	Sites	Sites with Businesses	Businesses	Total Annual Sales ^a	Total Employees	Total Annual Employee Income
In Reuse	4	2	4	\$140,000	146	\$3.7 million ^a
In Continued Use	1	1	1	\$5 million	30	\$1.8 million ^a
In Continued Use and In Reuse	0	0	0	\$0	0	\$0
Total	5	3	5	\$5.1 million	176	\$5.5 million^a

Note: Business information is not available for all businesses on all Superfund sites in reuse or continued use.

^a While sales values typically exceed estimated totals of annual income, sales can sometimes be lower than estimated income. This difference 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 collected property value data for one Superfund site in reuse in Arkansas. The Vertac, Inc. site in Jacksonville spans four property parcels and 157 acres and has a total property value of \$1.3 million. The properties at the site have a total land value of \$989,000 and a total improvement value of \$285,000. Properties at this site generate a combined \$14,000 in local property taxes.

Table 4. Property value and tax information for sites in reuse in Arkansas^a

Total Land Value (1 sites)	Total Improvement Value (1 sites)	Total Property Value (1 sites)	Total Annual Property Taxes (1 sites)
\$989,000	\$285,000	\$1.3 million	\$14,000

^a The property value and tax amounts reflect the latest property value year and tax data year available in county assessor data sets, which varied from 2013 to 2015.

Did You Know?

The 193-acre Vertac, Inc. site is home to several municipal uses for the City of Jacksonville. These include a fire department training facility, a recycling center, office space and storage for the City's Street Department, a driver training pad, a recycling education park, a police firing range and a public safety building. One hundred forty-six people are employed on site.



Figure 16: Vertac, Inc. site (Arkansas)

State Reuse Profile: Louisiana

EPA partners with the Louisiana Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Louisiana. Louisiana has nine Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 58 businesses and organizations operating on four sites in reuse and continued use in Louisiana. The businesses and organizations employ 596 people and contribute an estimated \$16 million in annual employment income.

Table 5. Detailed site and business information for Superfund sites in reuse and continued use in Louisiana (2014)

	Sites	Sites with Businesses	Businesses	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	6	2	5	\$0	102	\$4 million ^a
In Continued Use	2	1	1	\$83,000	2	\$116,000
In Continued Use and In Reuse	1	1	52	\$36 million	492	\$12 million
Total	9	4	58	\$36 million	596	\$16 million

Note: Business information is not available for all businesses on all Superfund sites in reuse or continued use.

^a While sales values typically exceed estimated totals of annual income, sales can sometimes be lower than estimated income. This difference 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 collected property value data for one site in reuse and continued use in Louisiana – the Highway 71/72 Refinery site in Bossier City. Property value data were only available for two on-site parcels that had recently undergone redevelopment as part of a new hotel complex. These two parcels span 6 acres and have a total property value of \$16 million. Together, the two properties have a total land value of \$1 million and a total improvement value of \$15 million. The properties generate a combined \$290,000 in local property taxes.

Table 6. Property value and tax information for sites in reuse and continued use in Louisiana^a

Total Land Value (1 sites)	Total Improvement Value (1 sites)	Total Property Value (1 sites)	Total Annual Property Taxes (1 sites)
\$1 million	\$15 million	\$16 million	\$290,000

^a The property value and tax amounts reflect the latest property value year and tax data year available in county assessor data sets, which varied from 2013 to 2015.

Did You Know?

The Gulf State Utilities-North Ryan site is home to the Lake Charles Division Service Center of Entergy Gulf States Louisiana, L.L.C., an electrical power production and retail distribution company. The center generates about \$2.5 million in annual employment income.



Figure 17: Gulf State Utilities-North Ryan site (Louisiana)

State Reuse Profile: New Mexico

EPA partners with the New Mexico Environment Department to oversee the investigation and cleanup of Superfund sites in New Mexico. New Mexico has six Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 13 businesses and organizations operating on three sites in reuse and continued use in New Mexico. The businesses and organizations employ about 40 people and contribute an estimated \$1.5 million in annual employment income.

Table 7. Detailed site and business information for Superfund sites in reuse and continued use in New Mexico (2014)

	Sites ^a	Sites with Businesses	Businesses	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	4	1	4	\$240,000	3	\$80,000
In Continued Use	2	2	9	\$4.5 million	38	\$1.4 million
In Continued Use and In Reuse	0	0	0	\$0	0	\$0
Total	6	3	13	\$4.7 million	41	\$1.5 million

Note: Business information is not available for all businesses on all Superfund sites in reuse or continued use.

^a Two sites are federal facilities. Data for federal facilities are not included in calculations of total sites with businesses, businesses, sales, employees, or income.

Property Values and Property Tax Revenues

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

Did You Know?

The Regional Housing Authority of Region VI, New Mexico, Inc. is located on the McGaffey and Main Groundwater Plume site in Roswell, New Mexico. The Housing Authority helps build partnerships with a range of stakeholders in order to develop more affordable housing. The Housing Authority provides an estimated \$446,000 in annual employment income.

Figure 18: New Mexico housing



State Reuse Profile: Oklahoma

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. EPA has collected economic data for 16 businesses and organizations operating on two sites in reuse and continued use in Oklahoma. The businesses and organizations employ 166 people, contribute an estimated \$8 million in annual employment income and have about \$14 million in estimated annual sales.

Table 8. Detailed site and business information for Superfund sites in reuse and continued use in Oklahoma (2014)

	Sites ^a	Sites with Businesses	Businesses	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	1	1	1	\$1 million	5	\$288,000
In Continued Use	2	1	15	\$13 million	161	\$8 million
In Continued Use and In Reuse	1	0	0	\$0	0	\$0
Total	4	2	16	\$14 million	166	\$8 million

Note: Business information is not available for all businesses on all Superfund sites in reuse or continued use.

^a One site is a federal facility. Federal facility sites are not included in calculations of total sites with businesses, businesses, jobs, income or annual sales.

Property Values and Property Tax Revenues

Property value and tax data were not available for sites in reuse in Oklahoma.

Did You Know?

The Tinker Air Force Base (Soldier Creek/Building 3001) site is located at Tinker Air Force Base on the southeastern edge of the Oklahoma City metropolitan area. EPA has coordinated closely with the Air Force and the Oklahoma Department of Environmental Quality throughout the cleanup process to make sure the base remains operational. The base is one of the state's largest employers.

Figure 19: Tinker Air Force Base (Soldier Creek/Building 3001) site (Oklahoma)

Source: U.S. Air Force



Did You Know?

The Tar Creek Superfund site spans about 12,600 acres in the northeastern Oklahoma, southeastern Kansas and southwestern Missouri. In 2013, the Quapaw Tribe became the first tribe to lead cleanup of contaminated property at a Superfund site. The tribe's initiative has led to groundbreaking environmental research, the preservation of historic community resources, and an approach that can guide similar efforts on other tribal lands and at former mine sites across the United States.

Figure 20: Tar Creek site (Oklahoma)



State Reuse Profile: Texas

EPA partners with the Texas Commission on Environmental Quality to oversee the investigation and cleanup of Superfund sites in Texas. Texas has 17 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 38 businesses and organizations operating on eight sites in reuse and continued use in Texas. The businesses and organizations employ 1,150 people and contribute an estimated \$35 million in annual employment income.

Table 9. Detailed site and business information for Superfund sites in reuse and continued use in Texas (2014)

	Sites ^a	Sites with Businesses	Businesses	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	8	4	8	\$38 million	160	\$7 million
In Continued Use	7	3	9	\$1 million	26	\$1 million ^b
In Continued Use and In Reuse	2	1	21	\$18 million	964	\$27 million ^b
Total	17	8	38	\$57 million	1,150	\$35 million

Note: Business information is not available for all businesses on all Superfund sites in reuse or continued use.

^a Five sites are federal facilities. Data for federal facilities are not included in calculations of total sites with businesses, businesses, sales, employees, or income.

^b While sales values typically exceed estimated totals of annual income, sales can sometimes be lower than estimated income. This difference 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 collected property value data for two Superfund sites in reuse or continued use in Texas, the RSR Corporation site in Dallas and the South Cavalcade Street site in Houston. These sites span almost 1,560 property parcels and nearly 1,000 acres and have a total property value of \$245 million. Both sites have property value details. Together, the properties at these sites have a total land value of \$181 million and a total improvement value of \$64 million. Properties at these sites generate a combined \$2.2 million in local property taxes.

Table 10. Property value and tax information for sites in reuse and continued use in Texas^a

Total Land Value (2 sites)	Total Improvement Value (2 sites)	Total Property Value (2 sites)	Total Annual Property Taxes (2 sites)
\$181 million	\$64 million	\$245 million	\$2.2 million

^a The property value and tax amounts reflect the latest property value year and tax data year available in county assessor data sets, which varied from 2013 to 2015.

Did You Know?

A five-turbine, 11.5-megawatt wind energy project operates on the Pantex Plant (USDOE) site near Amarillo, Texas. The wind farm will reduce carbon dioxide emissions by 35,000 metric tons annually and provide \$2.8 million in annual cost savings to the federal government over the next 18 years. The National Nuclear Security Administration and EPA held an opening dedication ceremony in June 2014. At the ceremony, EPA presented the DOE Pantex Plant with Region 6's Greenovations Award for innovative reuse.



Figure 21: Pantex Plant (USDOE) site (Texas)

Reuse on the Horizon in Region 6

Turning the Big Tex Grain Co. Site into a Vibrant Commercial and Residential Center

Between 1961 and 1989, the 7.5-acre Big Tex Grain Co. Superfund removal site in San Antonio, Texas, was a hive of industrial activity – vermiculite exfoliation, grain production and sawdust warehousing. Plant operations resulted in contamination of dust, air and soil with asbestos. EPA cleaned up the site, removing contaminated soil, disposing of contaminated materials and cleaning on-site structures. Cleanup finished in late 2008.

The site property is located next to the Blue Star Contemporary Art Center, which hosts art exhibitions, events and education programs. Early on in the cleanup process, the site owner expressed interest in converting the vacant industrial property into a mixed-use residential, arts and entertainment destination, combining the site with the neighboring Blue Star complex. The site's riverfront area also provided an ideal location for continued development of the popular San Antonio River Walk. At the request of the site owner, EPA issued an RfR Determination in November 2008. It clearly communicates to current and future users of the site that EPA has not placed any limitations on its use and that it is ready for reuse. In 2012, the City of San Antonio approved \$5 million in tax incentives and an economic development grant to help fund development of the mixed-use complex.

Referred to as Blue Star II, the \$42.7 million development will transform the site into a 334-unit multi-family residential development in the heart of San Antonio. Plans also include 6,000 square feet of retail space and \$2.2 million in public improvements. Blue Star II will also include walkways matching those in San Antonio's historic district and will connect to the Blue Star Contemporary Art Center. Grain silos and industrial features at the site will be part of the development as well. Construction is now underway, with opening of the development scheduled for the spring of 2016.⁸

Figure 22: The Big Tex Grain Co. site (Texas)



⁸ LeFor more information, see: the NRP group LLC. Big Tex. www.nrpgroup.com/Community.aspx?id=0A2DE8A9-B742-4954-B687-84BF75837A9A.

Conclusion

EPA's Region 6 works closely with its partners at Superfund sites across the south-central United States to make sure that sites can be used safely following cleanup. Region 6 also works with businesses and organizations located at Superfund sites prior to and during investigations and cleanup to make sure these businesses can remain open during the cleanup process. Businesses and organizations at these sites provide substantial numbers of jobs and income for communities, and generate local and state taxes. Cleanup and redevelopment of these areas also helps stabilize and boost property values. In EPA Region 6, 36 NPL sites and five non-NPL Superfund sites 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 23: RSR Corporation site (Texas)

The reuse of Superfund sites takes time and is often a learning process for project partners. Ongoing coordination among EPA, state agencies, local governments, potentially responsible parties, site owners, developers, and nearby residents and business owners is essential. EPA tools, including reuse assessments or plans, comfort letters or 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.

Results from across Region 6 indicate that these efforts are well worth it. Across the south-central United States, Superfund sites are now home to large hotel and commercial developments, mid-sized developments providing services to surrounding communities, and diverse small businesses. EPA is committed to working with all stakeholders, using both “tried-and-tested” tools as well as new and innovative approaches, to support the restoration and renewal of these sites as long-term assets for communities in Arkansas, Louisiana, New Mexico, Oklahoma and Texas.

EPA Resources for Superfund Site Reuse

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

EPA Region 6 Superfund Redevelopment Coordinator
Casey Lockett Snyder | 214-665-7393 | lockett.casey@epa.gov

SRI Website: tools, resources and more information about Superfund Redevelopment
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

Sources

Business, Job and Sales Information

Information on the number of employees and sales volume for on-site businesses comes from the Hoovers/Dun & Bradstreet (D&B) database. EPA also gathers information on businesses and corporations from D&B. D&B maintains a database of over 225 million active and inactive businesses worldwide. Database data include public records, financials, private company insights, extensive global information, telephone numbers and physical addresses. When Hoovers/D&B database research cannot identify employment and sales volume for on-site businesses, EPA uses the [Manta](#) database. Both databases include data reported by businesses. Accordingly, some reported values might be underestimates or overestimates. In some instances, business and employment information also comes from local newspaper stories/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. Data included in this Technical Appendix are obtained directly from reputable sources, and reported as presented by those sources.

EPA obtains wage and income information from the U.S. Bureau of Labor Statistics (BLS). EPA uses the BLS Quarterly Census of Employment and Wages database to obtain average weekly wage data for the identified businesses. Average weekly wage data are identified by matching the North American Industry Classification System (NAICS) codes corresponding with each type of business with weekly wage data for corresponding businesses. If weekly wage data are not available at the county level, EPA uses wage data by state or national level, respectively. In cases where wage data are not available for the six-digit NAICS code, EPA uses higher-level (less-detailed) NAICS codes to obtain the wage data. To determine the annual wages (mean annual) earned from jobs generated by each of the identified businesses, EPA multiplies 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 2014 and 2015. Annual employment income is based on job data estimated in 2014 using BLS average weekly wage data for those jobs from 2013 (the latest available wage data at the time of this profile). All figures presented have been rounded for the convenience of the reader. Federal facility sites are not included in calculations of total businesses, jobs, income or annual sales.

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 data sets. The property value and tax amounts reflect the latest property value year and tax data year available in county assessor data sets, which varied from 2013 to 2015. All figures presented have been rounded for the convenience of the reader.

Reuse in Action

Write-ups of sites in reuse or continued use included in this study are based on available EPA resources, including SRI case studies. Links to EPA's SRI case studies are included below.

[SRI Redevelopment Beneficial Effects Case Studies](#)

Vertac, Inc. 2012. [Reuse and the Benefit to Community](#).

RSR Corporation. 2015. [Reuse and the Benefit to Community](#).

[SRI In-Depth Case Studies](#)

Vertac, Inc. 2012. [Public-Sector Land Uses and Superfund Redevelopment: The Vertac, Inc. Site in Jacksonville, Arkansas](#).

[SRI Reuse Awards](#)

[Mosley Road Sanitary Landfill Superfund Site](#). 2014.

[Pantex Plant \(USDOE\) Superfund Site](#). 2014.



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