June 2016

Superfund Sites Work for Communities:

How Superfund Redevelopment in EPA Region 8 Is Making a Difference in Communities

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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 8 states – Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming – are widely known for their striking scenery and recreation resources as well as deep ties to farming and ranching, timber production, mining, railroads, and tourism. The region's beauty, history and economic strength continue to attract residents and visitors from across the country. Local governments, state agencies and organizations across these western states work hard to help smaller communities remain vibrant and plan carefully for growth in large cities and suburbs. A key part of this work focuses on finding new uses for old industrial and mining sites, including Superfund sites. The Superfund program in EPA Region 8 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 reuse can revitalize a local economy with jobs, new businesses, tax revenues and local spending. Through programs like the Superfund Redevelopment Initiative (SRI), EPA Region 8 helps communities reclaim cleaned up Superfund sites. Factoring in future use of Superfund sites into the cleanup process promotes their safe reuse. In addition, EPA Region 8 works closely with state and local officials to remove barriers that have kept many Superfund sites underused. EPA Region 8 works to ensure that businesses operating on properties being cleaned up under Superfund can continue operating in a manner that protects both human health and the environment while site investigations and cleanup work continue. This continuity enables these businesses to remain as a source of jobs for communities.

Region 8 Sites in Reuse and in Continued Use: Business and Job Highlights

Businesses
346
Estimated Annual Sales
$3.9 billion
Number of People Employed
14,870
Total Annual Employee Income
$861 million

Figure 2: Vasquez Boulevard & I-70 site (Colorado)

Superfund sites across the Rocky Mountain and Plains Region are now the location of industrial parks, shopping centers, hospitals and neighborhoods. Many sites continue to host industrial operations such as large-scale manufacturing facilities. Others are now ecological preserves, parks and recreation complexes. The on-site businesses and organizations at current and former Region 8 Superfund sites provide an estimated 14,870 jobs and contribute $861 million in annual employment income for Region 8 residents. Cleaned-up sites in use in Region 8 generate an estimated $33 million in annual property tax revenues for local governments.[1]

This profile looks at how reuse activities at Superfund sites make a difference in communities in Region 8. It updates the information presented in the 2014 profile. 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 about every two years. The beneficial effects may increase or decrease over time 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 business or property value data. Figures presented represent only a subset of all Superfund sites in reuse or continued use in Region 8.

[1] Business and property value tax figures represent only a subset of the beneficial effects of sites in reuse or continued use in Region 8. There are 29 Superfund sites in reuse or continued use in Region 8 for which EPA does not have business data, including ten 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 (parks, wetlands, ecological habitat, open space, etc.). There are 44 sites in reuse or continued use in Region 8 for which EPA does not have property value or tax data, including ten NPL federal facilities.

Support for Superfund Reuse

EPA Region 8 is committed to making a visible difference in communities through the cleanup and reuse of Superfund sites. In addition to protecting human health and the environment through the Superfund program, Region 8 partners with stakeholders to encourage reuse opportunities at Superfund sites. Region 8 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.

Figure 3: Bingham Junction Reuse Master Plan for the Midvale Slag site (Utah)

Specific reuse support efforts in EPA Region 8 include:

- Identifying and evaluating local land use priorities to align 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 8 communities and EPA find the right tools to move site reuse 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 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. Soccer Foundation, the Trust for Public Land and the Rails-to-Trails Conservancy.
- Developing reuse fact sheets, videos, websites, reuse case studies and Return to Use Demonstration Project summaries to share opportunities and lessons associated with Superfund redevelopment.

These efforts have helped build expertise across the Rocky Mountain and Plains Region, making it easier to consider future use of Superfund sites prior to cleanup and identify opportunities to remove reuse barriers. These efforts also help other communities, state agencies, potentially responsible parties (PRPs) and developers better understand potential future uses for Superfund sites. This understanding 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.

Figure 4: Planning for recreational soccer fields at the California Gulch site (Colorado)

Superfund Reuse: The Big Picture

EPA takes immediate action at contaminated sites through short-term cleanup actions, also called removal actions. Then EPA refers sites to its remedial program or to state programs. The National Priorities List (NPL) is a list of the most serious sites that EPA focuses on 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 the alternative cleanup approaches. EPA then proposes a cleanup plan, and after collecting public input, it issues a final cleanup plan. EPA then cleans up the site or oversees cleanup activities.[2] EPA has placed 70 sites in Region 8 on the NPL. The Agency also oversees investigation and cleanup at one Superfund Alternative Approach site in the region, and performs or oversees removal actions as well.

Figure 5: Silver Bow Creek/Butte Area site (Montana)

Whenever possible, EPA seeks to integrate reuse priorities into cleanup plans. In Region 8, 49 NPL sites and nine non-NPL Superfund sites are in use. These sites have either new uses in place or uses that remain in place from before cleanup.[3] Many of these sites have been redeveloped for commercial, industrial and public service purposes. Others are in residential, recreational, ecological or agricultural reuse. Businesses and other organizations also use some sites for storage and parking facilities. The following sections take a closer look at the beneficial effects of businesses operating on current and former Superfund sites.

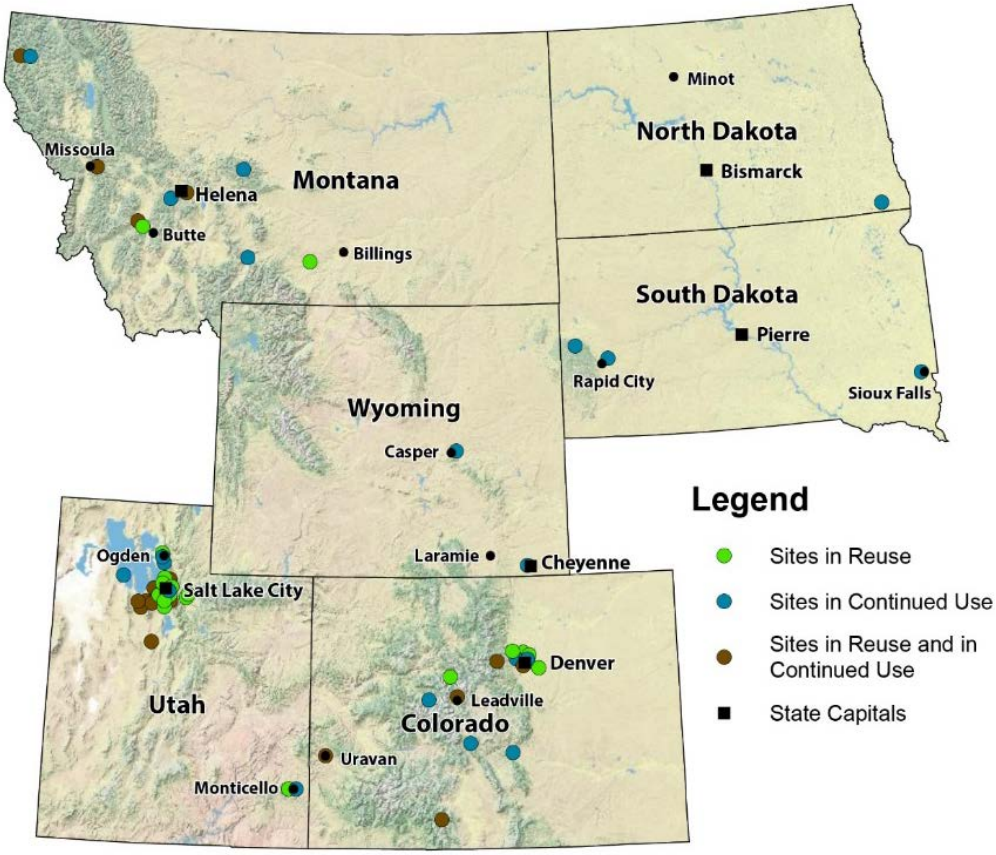

Figure 6: Sites in Reuse and Continued Use in Region 8

[2] Removal actions may be taken at sites on and not on the NPL.
[3] Five of these non-NPL Superfund sites are long-time proposed NPL sites.

Beneficial Effects of Superfund Site Reuse in Region 8

Businesses and Jobs

EPA has collected economic data for 346 businesses, government agencies and civic organizations at 22 NPL sites and seven non-NPL Superfund sites in reuse and continued use in Region 8.[4] See the State Reuse Profiles (pages 14-19) for each Region 8 state's reuse details. Businesses and organizations at these sites fall within several different sectors, including wholesale and retail trade, construction, manufacturing, transportation and warehousing, professional, scientific and technical services, health care and social services, and educational services.

Figure 7. Mouat Industries site (Montana)

Businesses, facilities and organizations at these sites include international engineering company FL Smidth, warehouse club and superstore Costco, home improvement center Home Depot, and hospital and health care provider Intermountain Medical Center.

The businesses and organizations located on these sites earn about $3.9 billion in estimated annual sales, and employ an estimated 14,870 people, earning an estimated $861 million in annual employment income. This income injects money into local economies and generates revenue through personal state income taxes. These businesses also help local economies through direct purchases of local supplies and services. On-site businesses that produce retail sales and services also generate tax revenues through the collection of sales taxes, which support state and local governments. Table 1 provides more detailed information.[5]

Table 1. Site and business information for Region 8 sites in reuse and continued use (2015)

	Sites	Sites with Businesses[a]	Businesses[b]	Total Annual Sales[c]	Total Employees	Total Annual Employee Income
In Reuse	18	8	54	$1.3 billion	7,522	$403 million
In Continued Use	22	11	149	$411 million	2,684	$156 million
In Reuse and in Continued Use	18	10	143	$2.2 billion	4,664	$302 million
Total	**58**	**29[d]**	**346**	**$3.9 billion**	**14,870**	**$861 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 report.
[d] See footnote 1, page 3.

[4] See footnote 1, page 3.
[5] For additional information on the collection of businesses, jobs and sales data, see the "Sources" section of this report.

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. 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.

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 8 Site Examples

- ***In Reuse:*** Rocky Mountain Arsenal (Colorado) – remediated areas at this former U.S. Army weapons manufacturing facility are now part of the Rocky Mountain Arsenal Wildlife Refuge. Facilities include a visitors center.

- ***In Continued Use:*** Mystery Bridge Rd/U.S. Highway 20 (Wyoming) – the site continues to host a natural gas processing and compressing facility, which provides natural gas to neighboring states.

- ***In Reuse and Continued Use:*** Eureka Mills (Utah) – many long-time businesses and homes remain in place; following cleanup, new homes are under construction.

Figure 8: Rocky Mountain Arsenal (Colorado)

Figure 9: Mystery Bridge Rd/U.S. Highway 20 site (Wyoming)

Figure 10: Eureka Mills site (Utah)

Property Values and Property Tax Revenues

Properties cleaned up under the Superfund program and returned to use may increase in value. For example, at the Midvale Slag site in Utah, Salt Lake County assessed the total value of the project area at $3.9 million in 2004; in 2015, its total estimated assessed value was over $309 million. 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 do provide 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.

EPA has collected property value tax data for 14 Superfund sites in reuse and continued use in Region 8.[6] These sites span 7,036 property parcels and 1,564 acres. They have a total property value of $3.1 billion. Thirteen of the 14 sites have both land and improvement property value data available; these properties have a total land value of $813 million and a total improvement value of nearly $2.3 billion.[7] Property tax information is available for all 14 sites with property value data. The properties generate a combined $33 million in local property taxes.

Region 8 Sites in Reuse: Property Value and Tax Highlights

Total Property Value
$3.1 billion

Total Annual Property Taxes
$33 million

Figure 11: Midvale Slag site (Utah)

Table 2. Property value and tax information for sites in reuse and continued use in Region 8[a]

Total Land Value (13 sites)[b]	Total Improvement Value (13 sites)	Total Property Value (14 sites)	Total Annual Property Taxes (14 sites)
$813 million	$2.3 billion	$3.1 billion	$33 million

[a] Results are based on an EPA SRI effort in 2015 and 2016 that calculated the 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 data sets, which varied from 2013 to 2015. For additional information, see the "Sources" section of this report.
[b] Detailed (land and improvement) property value data as well as tax data were not available for every site.

[6] There are 44 additional sites in reuse or continued use in Region 8 for which EPA does not have property value or tax data, including ten NPL federal facilities.
[7] Property values consist of land value and the value of any improvements (buildings and infrastructure) on a property. When sites are reused, some or all of these improvements may be new or already be in place. In some cases, the breakdown showing both the land value and improvement value is not always available; instead, only the total property value may be available.

Finding Value in Old Smelter Sites

Historically, Region 8 has been home to many former mines and smelters. The legacy of those operations – slag piles, contaminated structures, polluted soil and groundwater – left behind large areas in need of remediation. Despite the size and complexity of these sites, EPA, state and local governments, and community partners have proven that, with careful planning and collaboration, successful redevelopment is possible. Once-contaminated, underused lands across the region now provide long-term social, economic and environmental benefits. These sites are also helping to revitalize surrounding areas.

In Region 8, 145 businesses currently operate on 10 different Superfund smelter sites. The businesses and organizations on these sites employ more than 10,500 people, contributing an estimated $620 million in annual employment income, with about $3.2 billion in estimated annual sales. A few of these former smelter sites include Murray Smelter in Utah, Silver Bow Creek/Butte Area and Anaconda Co. Smelter in Montana, and Smeltertown in Colorado.

Figure 12: Old Works Golf Course at the Anaconda Co. Smelter site (Montana)

Smelter Redevelopment Success Story: Murray Smelter

Thanks to innovative partnerships and local leadership, the Murray Smelter Superfund site in Murray City, Utah, is now a valuable community resource. Once the world's largest primary lead smelter, the site is now home to the state-of-the-art Intermountain Medical Center, a light rail station, a commercial retail warehouse, a police training center, a school, several small businesses and a cement company.

From the outset, Murray City emphasized the area's strong redevelopment potential – its size, location and visibility in the community, access to major roadways, future light rail access and existing utility infrastructure. EPA and the Utah Department of Environmental Quality worked closely with Murray City and the responsible party to identify opportunities to coordinate the site's cleanup and redevelopment.

The site was idle for nearly 50 years. Located in an old industrial area in need of economic revitalization, its redevelopment has helped address Murray City's need for regional health care facilities, public transit access and diversified economic development. The site is home to several businesses that employ over 5,400 workers and contribute an estimated $282 million in annual employment income. The combined assessed value of the parcels in 2015 (the most recent year valued) reached nearly $572 million. Reuse at the site has also helped foster development in the surrounding area. Additionally, public transit ridership at the Murray Utah Transit Authority station has significantly reduced pollution emissions in the community.

Figure 13: Intermountain Medical Center in Murray City (Utah)

Figure 14: Utah Transit Authority light rail station in Murray City (Utah)

Beneficial Effects from Enhanced Recreational, Ecological and Cultural Tourism Amenities

In addition to hosting office buildings, shopping centers and manufacturing facilities, many Region 8 sites in reuse provide recreational, ecological and cultural tourism resources. While beneficial effects from some of these reuses, such as new hiking trails or a park, are highly visible, others – such as improved wetland health or increased biodiversity – may become more evident over the long term. These cleanups also create, restore and protect ecosystems, both on site and off site, across Region 8.

Figure 15: Silver Bow Creek/Butte Area site (Montana)

Mountain Con Park at the Silver Bow Creek/Butte Area site in Butte, Montana, spans 50 acres. Park trails – Montana's Copperway – run across the park and other parts of the site, linking historic preservation areas in Butte and Walkerville. These features have helped Butte attract state and national festivals, including the National Folk Festival from 2008 to 2010. Recreational trails are also located on parts of other remediated Region 8 sites, including the California Gulch, International Smelting and Refining, Ogden Railroad Yard, Milltown Reservoir Sediments and Midvale Slag sites.

Figure 16: International Smelting and Refining site (Utah)

Four Region 8 sites are now golf courses, providing the communities with green space and beneficial economic effects as well as recreation opportunities. Following cleanup of the Anaconda Co. Smelter in Montana, for example, 250 acres were revegetated and developed into a 21-hole golf course. Designed by golf legend Jack Nicklaus, the course combines beautiful landscaping with historic mining artifacts. The design also includes an interpretive trail that winds around the golf course.

Figure 17: Rocky Mountain Arsenal site (Colorado)

Cleaned-up Superfund sites in Region 8 also host wetlands, meadows, pastures, streams and ponds, where they provide habitat for plants and animals. The Rocky Mountain Arsenal and Rocky Flats Plant sites, for example, are now home to national wildlife refuges and support a range of plant and animal species. Cleanup of the Silver Bow Creek/Butte Area site in Montana included the restoration of wetlands that now serve as key habitat for Osprey and migrating Canadian Geese. At the Monticello Mill Tailings site in Utah, the City of Monticello restored three backwater wetlands along Montezuma Creek, recreating a meandering creek channel and planting it with willows to support wetlands and riparian habitat for wildlife. These recreational and ecological reuses help attract visitors and residents, and indirectly contribute to local economies.

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 the National Oceanic and Atmospheric Administration's website feature on Carbon Sequestration.

Reuse in Action

Midvale Slag – Thriving Mixed-Use, Mixed-Income Development

The 446-acre Midvale Slag site is a former smelter in Midvale City, located 12 miles south of Salt Lake City in northern Utah. From 1871 to 1958, five smelters processed lead and copper ore at the site, contaminating groundwater and soils, including residential properties. EPA listed the site on the NPL in 1991. Cleanup included soil removal, groundwater monitoring and institutional controls. Throughout the cleanup process, EPA, state agencies, Midvale City, local citizens and the site's owner worked together to link cleanup and redevelopment with land revitalization goals.

In 1999, Midvale City became the first community in Region 8 selected as an EPA Superfund Redevelopment pilot project, which provided support for development of the community's Bingham Junction Reuse Assessment and Master Plan. Today, Bingham Junction has become the thriving mixed-use development envisioned by the community. There are over 1,800 residences on the site, including dedicated units for moderate- and low-income residents. FL Smidth, an international engineering company, has Gold and Silver LEED-certified offices and laboratories on site and contributes an estimated $31 million in annual employment income. In 2012, Intermountain Healthcare opened a Gold LEED-certified medical distribution center and office complex on site near Bingham Junction's light rail station. In 2014, Progressive Insurance and Savage Services, a service and supply chain management business, completed construction of large-scale facilities on site.

"The community's vision of successful redevelopment, and its vision of a site where people and the environment are kept safe, is coming to pass … Bingham Junction has been a remarkable undertaking to be part of."

– Ray Limb, Former Midvale City Development Site Coordinator

Figure 18: Midvale Slag site (Utah)

Together, the on-site businesses employ over 1,100 workers and generate an estimated $68 million in employee income each year. There are other projects currently in the planning stages or underway at Bingham Junction, including a new headquarters building for Overstock.com. These projects will add about 400,000 square feet of new office space to the development. In 2015, EPA Region 8 recognized the project with its Excellence in Site Reuse Award, celebrating the City of Midvale's leadership in returning the site to beneficial use.

Lowry Landfill – Landfill Gas-to-Energy Plant

This 507-acre area is located in Aurora, Colorado, 15 miles southeast of Denver. Starting in the 1960s, the City and County of Denver operated a municipal landfill on site. It accepted a variety of wastes until 1984 and municipal solid waste until 1990. Landfill operations contaminated groundwater and soils. Gases from the buried wastes also contaminated air spaces in subsurface soil. EPA added the site to the NPL in 1984. The site's remedy included groundwater treatment, a landfill cover and a gas collection system. Following cleanup, the City of Denver, Waste Management and local utility Xcel Energy collaborated to productively reuse the site's landfill gas. In July 2007, construction began on a landfill gas-to-energy plant at Lowry Landfill and the adjoining Denver Arapahoe Disposal site.

Figure 19: Lowry Landfill site (Colorado)

The plant started operating in September 2008. It uses four combustion engines to convert 630 million cubic feet of methane gas annually from both sites into 3.2 megawatts of electrical power. This process reduces greenhouse gases and provides electricity for about 3,000 households. The plant minimizes methane emissions that could contribute to climate change. The plant also destroys hazardous substances in extracted landfill gas, offsets the use of non-renewable resources for the generation of electricity, and reduces the emission of sulfur dioxide, nitrogen oxide, carbon dioxide and particulate matter from the use of non-renewable resources. When fully operational, the plant will remove about 5,000 tons of methane from the landfill annually, equivalent to removing 22,000 cars from the road each year. In addition to these beneficial effects, the

plant provides local employment opportunities. Waste Management employees working on site earn an estimated total annual income of over $1.5 million.

California Gulch – Recreational Amenities for a Historic Mining Community

The historic city of Leadville sits higher than any other incorporated city in the United States, at an elevation of over 10,000 feet. The 18-square-mile California Gulch site in Lake County, Colorado, includes Leadville and its surroundings. For over 100 years, prospectors and companies mined the area for lead, gold, silver, copper, zinc and manganese. Mining operations left slag and other materials contaminated with heavy metals in soils and waterways like the Arkansas River. EPA placed the site on the NPL in 1983. Following cleanup, EPA deleted much of the site from the NPL.

Figure 20: California Gulch site (Colorado)

Today, Leadville's economy includes a vibrant sector focused on recreation. EPA, the state, the community and the site's potentially responsible parties worked together to make reuse possible and enhance the area's recreational amenities. In 1998, EPA and the state signed agreements to provide public access to open space near the Arkansas River. The community incorporated remaining slag into the design of the Mineral Belt Trail, a 12.5-mile, nationally-recognized recreation trail that highlights the community's history and heritage. The U.S. Soccer Foundation awarded a grant to support planning for a $1.5 million public sports complex built on a former zinc smelter in 2009. A community-led initiative called the Huck Finn Park Project included a 21,000-square-foot skate park that opened in the fall of 2013. In 2014, a 100-mile stretch of the Upper Arkansas River once contaminated with heavy metals received a Gold Medal Trout Waters listing for the size and number of trout in the river. The recovery of the Arkansas River has the potential to expand the length of the area's tourism season during the fall and spring each year. In 2014, EPA Region 8 celebrated the project with its Excellence in Site Reuse Award, recognizing several parties for their leadership and sustained involvement with key reuse projects at the site.

Benefits of Green Space at Superfund Sites

Green spaces at Superfund sites support many reuse activities, from recreation areas and wildlife habitat to agricultural uses. Green spaces are integral components of sustainable communities – they help protect the environment and public health while also providing other social and economic benefits. Parks, community gardens and other public green spaces create opportunities for people to meet up, exercise and connect with nature. They provide areas to re-introduce ecosystems and biodiversity into urban and suburban landscapes, creating corridors for migrating species and preserving habitat. Green spaces can also help mitigate stormwater runoff problems – their absorption and filtration of stormwater results in improved water quality and reduces runoff and erosion.

Parks, natural areas and scenic landscapes also have significant economic value. The economic impacts of recreation activities include outdoor recreation spending and public cost savings related to healthcare and infrastructure. Protected green spaces can also increase the property values of nearby homes, providing amenities that draw people to live and work in a community.

Careful planning can make sure cleanups take potential green space locations into account. To learn more, see EPA's Green Infrastructure: Thinking Regionally website and EPA's Smart Growth website.

Milltown Reservoir/Clark Fork River – Milltown State Park

The remarkable natural resources surrounding the Clark Fork and Blackfoot Rivers in western Montana have sustained communities, including the Bitterroot Salish, Pend d'Oreille and Kootenai tribes, for generations. From the 1860s until the late 20th century, the area was also part of one of the richest mining regions in the world. These operations generated wastes and caused widespread metals contamination. EPA listed two separate areas on the NPL in 1983 and 1995. Together, these areas comprise the Milltown Reservoir/Clark Fork River Superfund site. Cleanup has included the removal of contaminated reservoir sediments and the historic Milltown Dam in 2010.

Throughout the project, EPA, local communities, and federal, state and tribal partners have collaborated on a coordinated approach to address cleanup, restoration and redevelopment. Assisted by an EPA Superfund Redevelopment pilot grant, area communities developed a reuse plan in 2005 that focused on creation of a state park with trails, river access, wildlife habitat and interpretive areas celebrating the region's history and heritage. In 2010, the State of Montana acquired 415 acres of the site and allocated $2.7 million for the park's development. Today, a scenic overlook in Milltown State Park is now open; it provides a panoramic view of the Blackfoot and Clark Fork Rivers. Future work will add new trails, parking areas, viewpoints, river access ramps and other facilities.

"We started out committing to six meetings and now it has been six years. It has definitely been worth it. The project's results have turned out to be much bigger than we ever dreamed they would be."

– Judy Matson, Milltown Superfund Redevelopment Working Group

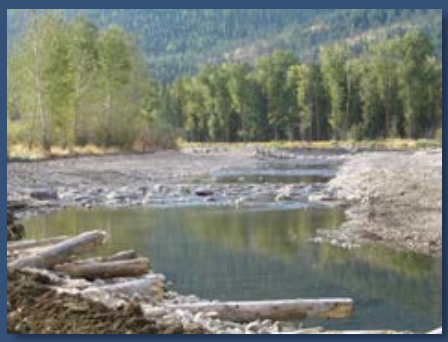

Figure 21: Milltown Reservoir/Clark Fork River site (Montana)

State Reuse Profile: Colorado

EPA partners with the Colorado Department of Public Health and Environment to oversee the investigation and cleanup of Superfund sites in Colorado. Colorado has 17 Superfund sites with either new uses in place or uses remaining in place since before cleanup. EPA has collected economic data for 211 businesses and organizations operating on 10 sites in reuse and continued use in Colorado. The businesses and organizations employ 3,395 people and contribute an estimated $180 million in annual employment income.

Table 3. Detailed site and business information for Superfund sites in reuse and continued use in Colorado (2015)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	5	2	3	$10 million	37	$2 million
In Continued Use	6	5	121	$302 million	1,772	$98 million
In Reuse and in Continued Use	6	3	87	$330 million	1,586	$80 million
Total	**17**	**10**	**211**	**$642 million**	**3,395**	**$180 million**

[a] Three sites are federal facilities. Data for federal facilities are not included in calculations of total sites with businesses, businesses, sales, employees or income.
[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 four Superfund sites in reuse and continued use in Colorado. The sites span 6,154 property parcels and 883 acres and have a total property value of $1.9 billion. The total land value of the site properties is $595 million. Their total improvement value is about $1.4 billion. The site properties generate $27 million in annual local property taxes.

Table 4. Property value and tax information for sites in reuse and continued use in Colorado[a]

Total Land Value (4 sites)	Total Improvement Value (4 sites)	Total Property Value (4 sites)	Total Annual Property Taxes (4 sites)
$595 million	$1.4 billion	$1.9 billion	$27 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?

Gold and silver mines operated at the Central City, Clear Creek site in Idaho Springs, Colorado, for almost a decade. Today, cleanup of the site and surrounding watershed supports casinos, hotels and restaurants while also making possible recreation opportunities – kayaking, rafting, fishing – for the community.

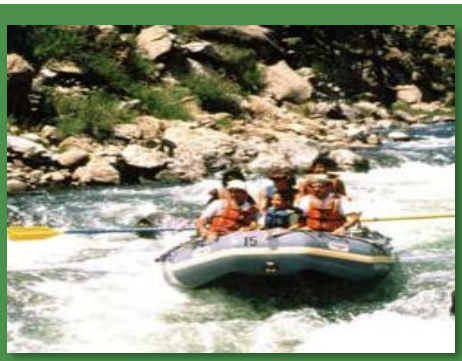

Figure 22: Central City, Clear Creek site (Colorado)

State Reuse Profile: Montana

EPA partners with the Montana Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Montana. Montana has 10 Superfund sites with either new uses in place or uses remaining in place since before cleanup. EPA has collected economic data for eight businesses and organizations operating on five sites in reuse and continued use in Montana. The businesses and organizations employ 487 people and contribute an estimated $41 million in annual employment income.

Table 5. Detailed site and business information for Superfund sites in reuse and continued use in Montana (2015)

	Sites	Sites with Businesses	Businesses[a]	Total Annual Sales[b]	Total Employees	Total Annual Employee Income
In Reuse	2	2	3	$0	352	$34 million
In Continued Use	4	1	1	$0	13	$630,000
In Reuse and in Continued Use	4	2	4	$1 million	122	$6 million
Total	**10**	**5**	**8**	**$1 million**	**487**	**$41 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 in Montana. The site spans 4 property parcels and 4.5 acres and has a total property value over $393,000. The site property generates about $5,300 in annual local property taxes.

Table 6. Property value and tax information for sites in reuse in Montana[a]

Total Land Value (1 site)	Total Improvement Value (1 site)	Total Property Value (1 site)	Total Annual Property Taxes (1 site)
$393,000	$0	$393,000	$5,300

[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 Libby Asbestos Superfund site is located in the communities of Libby and Troy in northern Montana. Vermiculite mining took place in the area from the 1920s until 1990. Through the collaborative efforts of EPA, state agencies and local partners, the community now enjoys new boating facilities, pavilions, a memorial, parking facilities, picnic areas and a restored fishery. Current efforts are focused on cleanup of a golf course and creation of a recreation trail and fishing pond.

Figure 23: Libby Asbestos site (Montana)

State Reuse Profile: North Dakota

EPA partners with the North Dakota Department of Health to oversee the investigation and cleanup of Superfund sites in North Dakota. North Dakota has one Superfund site in continued use. The site is in use for agricultural purposes. The site spans several hundred square miles and includes small towns and farmland.

Table 7. Detailed site and business information for Superfund sites in continued use in North Dakota (2015)

	Sites	Sites with Businesses	Businesses[a]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	0	0	0	$0	0	$0
In Continued Use	1	0	0	$0	0	$0
In Reuse and in Continued Use	0	0	0	$0	0	$0
Total	1	0	0	$0	0	$0

[a] 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 the site in continued use in North Dakota.

Did You Know?

The Arsenic Trioxide Superfund site in southeastern North Dakota experienced massive grasshopper infestations in the early 1990s. Arsenic was used as a control measure, resulting in the site's contamination. Today, the site's remedy includes a geothermal heating and cooling system, which reduces the use of fossil fuels and lowers operation and maintenance costs.

Figure 24: Arsenic Trioxide site (North Dakota)

State Reuse Profile: South Dakota

EPA partners with the South Dakota Department of Environment and Natural Resources to oversee the investigation and cleanup of Superfund sites in South Dakota. South Dakota has three Superfund sites with uses remaining in place since before cleanup. EPA has collected economic data for one business on one site in continued use in South Dakota. The business employs 10 people and contributes an estimated $551,000 in annual employment income.

Table 8. Detailed site and business information for Superfund sites in continued use in South Dakota (2015)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	0	0	0	$0	0	0
In Continued Use	3	1	1	$2.5 million	10	$551,000
In Reuse and in Continued Use	0	0	0	$0	0	$0
Total	**3**	**1**	**1**	**$2.5 million**	**10**	**$551,000**

[a] One site is a federal facility. Data for federal facilities are not included in calculations of total sites with businesses, businesses, sales, employees or income.
[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 continued use in South Dakota.

Did You Know?

The Whitewood Creek Superfund site included an 18-mile stretch of Whitewood Creek in Lawrence, Meade and Butte counties in South Dakota. Former mining operations released mining-related contaminants into Whitewood Creek. Following cleanup, native woodlands cover most of the site. The rest is in residential or agricultural use. EPA took the site off the NPL in 1996. Whitewood Creek is a water source for irrigation, watering livestock and recreation.

Figure 25: Whitewood Creek site (South Dakota)

State Reuse Profile: Utah

EPA partners with the Utah Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Utah. Utah has 25 Superfund sites with either new uses in place or uses remaining in place since before cleanup. EPA has collected economic data for 120 businesses and organizations operating on 12 sites in reuse and continued use in Utah. The businesses and organizations employ over 10,900 people and contribute an estimated $635 million in annual employment income.

Table 9. Detailed site and business information for Superfund sites in reuse and continued use in Utah (2015)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	11	4	48	$1.3 billion	7,133	$367 million
In Continued Use	6	3	20	$82 million	838	$52 million
In Reuse and in Continued Use	8	5	52	$1.8 billion	2,956	$216 million
Total	**25**	**12**	**120**	**$3.2 billion**	**10,927**	**$635 million**

[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] 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 nine Superfund sites in reuse and continued use in Utah. These sites span 878 property parcels and 676 acres.[8] They have a total property value over $1.1 billion. Eight of the nine sites have both land and improvement property value data available; together, these properties have a total land value of $218 million and a total improvement value of $911 million. Property tax information is available for all nine sites. The site properties generate a combined $6 million in local property taxes.

Table 10. Property value and tax information for sites in reuse and continued use in Utah[a]

Total Land Value (8 sites)	Total Improvement Value (8 sites)	Total Property Value (9 sites)	Total Annual Property Taxes (9 sites)
$218 million	$911 million	$1.1 billion	$6 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?

The Wasatch Chemical Co. (Lot 6) site in Salt Lake City, Utah, remains in active industrial use following treatment of contaminated soil and groundwater. Today, the site includes several office buildings, a steel warehouse and a plumbing supply company.

Figure 26: Wasatch Chemical Co. (Lot 6) site (Utah)

[8] Acreage data was not available for one site.

State Reuse Profile: Wyoming

EPA partners with the Wyoming Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Wyoming. Wyoming has two Superfund sites with uses remaining in place since before cleanup. EPA has collected economic data for 6 businesses and organizations operating on one site in continued use in Wyoming. The businesses and organizations employ over 50 people and contribute an estimated $4 million in annual employment income.

Table 11. Detailed site and business information for Superfund sites in continued use in Wyoming (2015)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales[a]	Total Employees	Total Annual Employee Income
In Reuse	0	0	0	$0	0	$0
In Continued Use	2	1	6	$25 million	51	$4 million
In Reuse and in Continued Use	0	0	0	$0	0	$0
Total	**2**	**1**	**6**	**$25 million**	**51**	**$4 million**

[a] One site is a federal facility. Data for federal facilities are not included in calculations of total sites with businesses, sales, employees or income.
[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 continued use in Wyoming.

Did You Know?

The Mystery Bridge Rd/U.S. Highway 20 site in Evansville, Wyoming, is home to a natural gas processing facility and a 40-home subdivision. Following cleanup, both areas remain in continued use.

Figure 27: Mystery Bridge Rd/ U.S. Highway 20 site (Wyoming)

Reuse on the Horizon in Region 8

Transforming Smelter Sites for Urban Growth in Denver

The Vasquez Boulevard & I-70 Superfund site spans a 4.5-square-mile mixed-use area in the north-central section of the City and County of Denver, Colorado. Historically, the site was one of the major smelting centers in the western United States. As early as 1870, three smelting plants operated in the area, refining gold, silver, copper, lead and zinc. Smelter operations contaminated plant facilities and nearby residential areas with heavy metals. EPA placed the site on the NPL in 1999. ASARCO, the site's potentially responsible party, started work on the cleanup in the 1990s. Today, cleanup is ongoing.

In 2003, EPA selected a final remedy for part of the site – nearly 800 lead- and arsenic-contaminated residential yards. EPA worked closely with community members and local nonprofits to inform residents, address concerns, provide technical assistance and put institutional controls in place. The effort, which finished in 2008, ensured the safe continued use of homes, neighborhoods, schools and parks. Many businesses – including several commercial and industrial complexes – are also located in the area. Looking forward, the City of Denver and several educational institutions are working on a revitalization project that will transform part of the area, called the National Western Complex, into a state-of-the-art facility for agricultural research, business and education. The project will create thousands of new jobs.

EPA is currently developing final cleanup plans for remaining smelter facilities and other affected areas. EPA is working with the community to identify land use priorities for these areas, making sure that final remedies will be compatible with existing land uses and the community's redevelopment goals. The City of Denver is also planning an extensive redevelopment project within the site's boundaries. Infrastructure improvements for roads and rail lines will expand commuter and public transit options. Green infrastructure and stormwater drainage area improvements will include new wildlife habitat and recreation areas. The City's River North Plan will support new commercial, industrial and residential developments along three major transportation corridors. EPA will conduct further sampling to demonstrate the area's suitability for redevelopment.

Figure 28: Vasquez Boulevard & I-70 site (Colorado)

Conclusion

EPA works closely with its partners at Superfund sites across Region 8 to make sure that sites can safely be reused or remain in continued use following cleanup. EPA also works with businesses and organizations operating on Superfund sites prior to and during Superfund investigations and cleanup to enable these businesses to remain open during the cleanup process. The businesses and organizations operating on these sites provide substantial jobs and income for communities. They help generate local and state taxes. Cleanup and redevelopment of these areas also helps stabilize and boost property values. There are 49 NPL sites and nine non-NPL Superfund sites in Region 8 that have either new uses in place or uses that have remained in place since before cleanup. Many other Superfund sites in Region 8 have reuse plans in place for the future. EPA is committed to working with stakeholders at all sites to foster outcomes that protect public health and the environment and make redevelopment possible in the Rocky Mountain and Plains Region.

Figure 29: Midvale Slag site (Utah)

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.

Across Region 8, Superfund sites are now home to large commercial and residential developments, mid-sized developments providing services to surrounding communities, and diverse businesses. EPA is committed to working with all stakeholders to support the restoration and renewal of these sites as long-term assets.

EPA Superfund Site Reuse Resources

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

EPA Region 8 Superfund Redevelopment Initiative Coordinator
Fran Costanzi |303-312-6571 | costanzi.frances@epa.gov

SRI 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

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 more than 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 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 are obtained directly from the aforementioned 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 is not available at the county level, EPA uses wage data by state or national level, respectively. In cases where wage data is 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 report were collected in 2015. Annual employment income is based on job data estimated in 2015 using BLS average weekly wage data for those jobs from 2014 (the latest available wage data at the time of this report). All income and sales figures presented have been rounded for the convenience of the reader. Federal facility sites are not included in calculations of total sites with businesses, businesses, jobs, income or annual sales.

Property Value and Tax Information

EPA collected on-site property values and property taxes included in this report 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 datasets, 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

California Gulch. 2014. Recreation and Tourism Reuse and the Benefit to Community.

Midvale Slag. 2015. Reuse and Benefit to the Community. Draft.

Murray Smelter. 2012. Reuse and Benefit to Community.

SRI In-Depth Case Studies

Libby Asbestos Superfund Site. 2014. Out of the Dust: Recreational Reuse After Vermiculite Mining: The Libby Asbestos Superfund Site in Libby, Montana.

Midvale Slag Superfund Site. 2011. Cleanup and Mixed-Use Revitalization on the Wasatch Front: The Midvale Slag Superfund Site and Midvale City, Utah.

Milltown Reservoir Sediments/Clark Fork River Superfund Site. 2011. Integrating the "3 Rs" – Remediation, Restoration and Redevelopment: The Milltown Reservoir Sediments Site and Missoula County, Montana.

Silver Bow Creek/Butte Area Superfund Site. 2014. Building on Mining History: Cleanup, Reuse and Community Resilience at the Silver Bow Creek/Butte Area Superfund Site in Butte, Montana.

Other Resources

Midvale Slag

Marjorie Cortez. "Intermountain's high-tech medical warehouse expected to lower costs, enhance patient care." *Deseret News*. September 12, 2012.

Redevelopment Agency of Midvale. 2014 Annual Report.

Toby Gooley. "Intermountain man: interview with Brent Johnson." *DC Velocity*. October 28, 2013.

Milltown Reservoir/Clark Fork River

Rob Chaney. "Update 2015: Milltown State Park assembly required, but opening in sight." *Missoulian*. December 27, 2015.

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