



Superfund Redevelopment



20th Anniversary Report

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Superfund Redevelopment *in Action*

Blackburn & Union Privileges (Walpole, Massachusetts)

This Superfund site was once a manufacturing facility for tires, insulation and cotton and fabric production. EPA worked with the community on a comprehensive remedy for the site. With Superfund Redevelopment assistance, the community also developed reuse plans for the area. In 2018, years of hard work by local leaders paid off. A new police station provides space for the department and includes safety equipment and emergency response technology and training space. The new Walpole Co-operative Bank South Street Center is the first stand-alone senior center facility in the community. Strong community support for the project included a \$6.8 million contribution from the town, \$1.4 million raised by private donors and substantial support from a local bank.

EPA recognized the community's leadership with Excellence in Site Reuse awards in December 2018.

Introduction to Superfund Redevelopment

For nearly 40 years, EPA's Superfund program has been a cornerstone of the work EPA performs for communities across the country. Helping people participate in the Superfund cleanup process and supporting community efforts to safely reuse sites are vital parts of the program's mission to protect public health and the environment.

2019 marks the 20th anniversary for Superfund Redevelopment. This program develops cutting-edge tools and resources to address evolving community priorities and tackle new challenges. Recent projects have integrated cleanups and reuse to save taxpayer dollars, accelerate cleanups, restore access to vital services, including health care in urban areas, and enabled infrastructure projects that address community priorities. Each of these projects generates new perspectives and lessons learned that Superfund Redevelopment shares nationwide.



Superfund Redevelopment has provided reuse support for more than 350 projects, assisting communities, developers, local governments and other stakeholders.



Reuse planning and facilitation services bring people together to discuss community priorities, address concerns and develop plans for the future.



Partnerships with communities, states, tribal and local governments, nonprofits, and private-sector organizations have removed unnecessary reuse barriers.



Superfund Redevelopment's information resources – case studies, videos, success stories, awards, trainings – continue to build capacities and highlight new reuse directions.



Innovative tools such as Ready for Reuse Determinations provide site owners, businesses, local governments and lenders with the tools they need to make reuse happen.

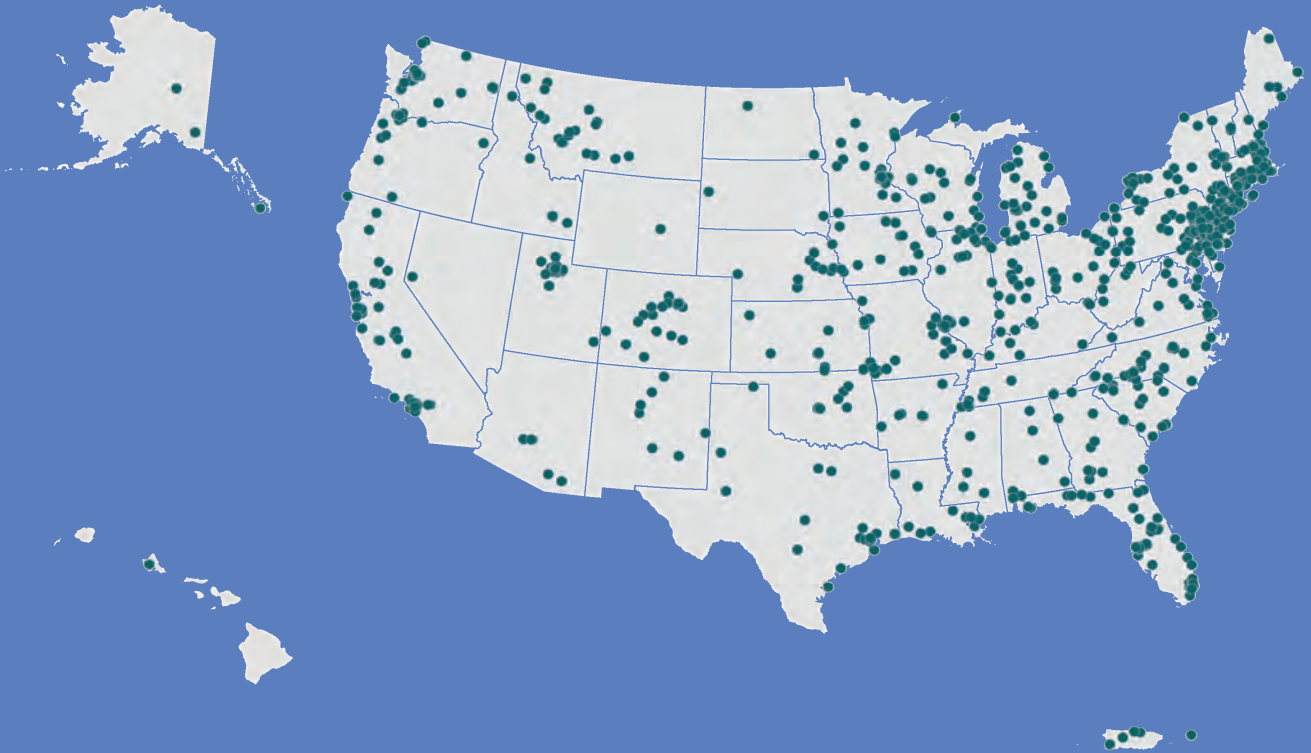


Performance measures are tracking the Superfund program's accomplishments in making land ready for reuse. Nearly 900 sites have achieved the Sitewide Ready for Anticipated Use measure.

Superfund Redevelopment helps communities reclaim and reuse thousands of acres of formerly contaminated land. Today, about 1,000 Superfund sites support new and ongoing uses. EPA has collected data on more than 8,600 businesses at many of these Superfund sites. In fiscal year 2018, these businesses generated \$52.4 billion in sales and employed more than 195,000 people who earned a combined income of \$13.3 billion. Since Superfund Redevelopment started tracking this data in 2011, these businesses have generated approximately \$263 billion in sales.

This report shares Superfund Redevelopment success stories from some of the 1,000 Superfund sites supporting new and ongoing uses. It also highlights the broader history and the future of Superfund Redevelopment.

There is reuse and redevelopment happening at Superfund sites in every state across the country.



Ready for Redevelopment

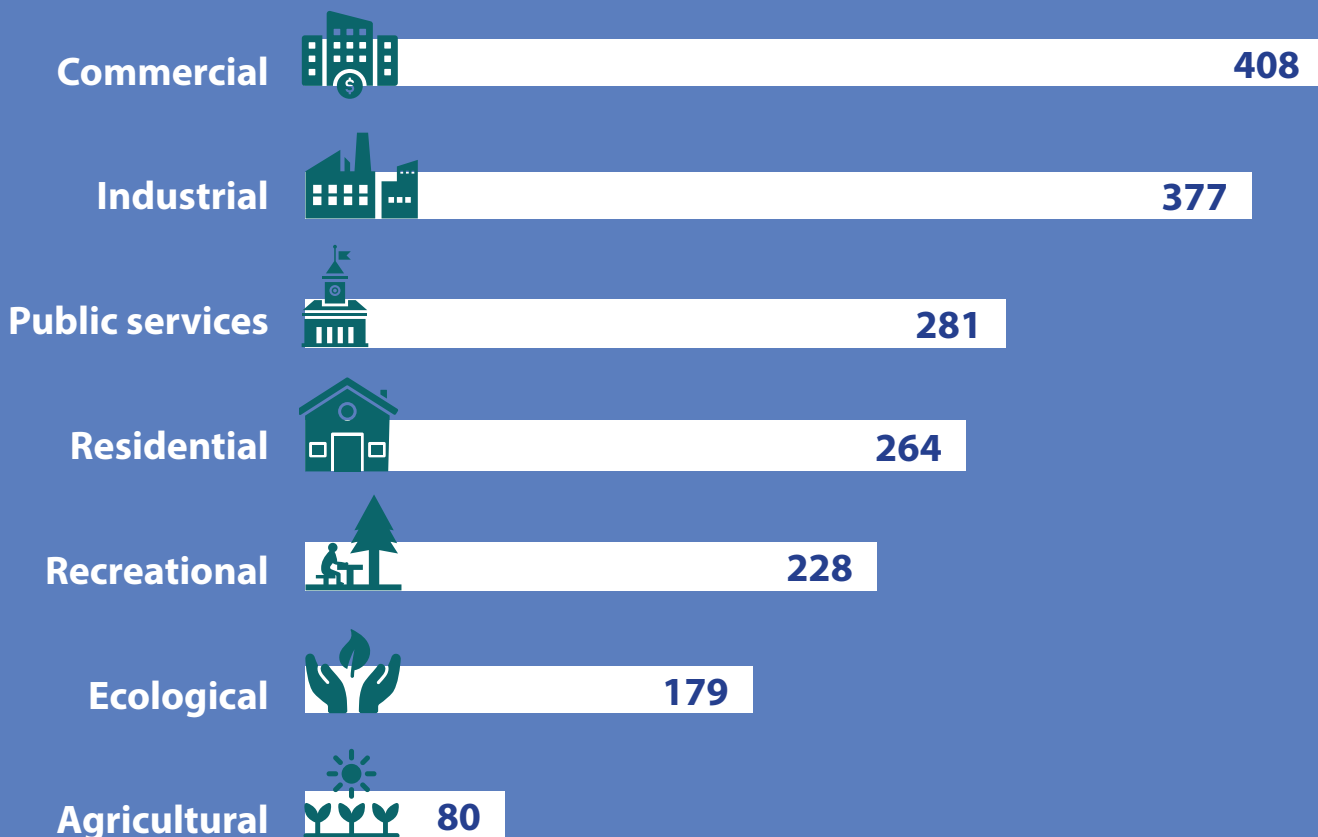
The Armour Road Superfund site in North Kansas City, Missouri, is one of the sites featured on EPA's Redevelopment Opportunities List of sites with the greatest expected redevelopment and commercial potential. EPA worked with the city of North Kansas City and responsible parties throughout cleanup to help position this former industrial facility for redevelopment.

**“We are accelerating cleanups,
returning sites to productive reuse
and revitalizing communities across
the country.”**

- Andrew Wheeler,
EPA Administrator

Superfund Site Uses by Type

The chart below shows the diversity and frequency of different land uses at Superfund sites, with commercial and industrial uses leading the way. Because many sites support multiple uses, the total number of site uses is greater than the number of sites with new and ongoing uses.





Superfund Redevelopment Initiative's 20th Anniversary: Making History



Mixed-Use Revitalization Continuing to Break New Ground in Midvale, Utah

Twenty years of collaboration and dedication at the local, state and federal level have transformed the Midvale Slag Superfund site, a former smelter, into a vibrant community resource. Superfund Redevelopment support led to the groundbreaking creation of the Bingham Junction Reuse Assessment and Master Plan. Today, the site is home to a thriving mixed-use development supporting thousands of jobs. Builders have completed over 1,000 residences on site and plan to complete about 1,000 more. The site is also home to office buildings, a supermarket and other stores. In total, developers plan to build up to 2 million square feet of commercial office and retail space on site. Bingham Junction's Riverwalk Park provides access to the Jordan River. A Utah Transit Authority light rail station opened on site. Facilities at Bingham Junction Park include a softball field, basketball court, play structure and sledding hill. EPA took the site off the Superfund program's National Priorities List in 2015 – all required cleanup activity is complete.



Nationwide, thanks in part to Superfund Redevelopment:



59 Superfund sites are now home to alternative energy facilities.



95,000+ homes can be powered by these facilities with a total installed capacity of 360 megawatts.



92% of these projects are made up of wind, solar and landfill gas facilities.



Superfund Redevelopment *in Action*

The Brick Township Landfill Superfund site in northern New Jersey now hosts a 7-megawatt solar farm. The facility powers all municipal buildings and community park facilities in the township.

The Superfund Task Force:

Promoting Redevelopment and Community Revitalization

Promoting redevelopment and community revitalization is one of the key goals of the Agency's Superfund Task Force, and a priority of the Superfund program. In 2017, EPA developed a list of Superfund National Priorities List sites nationwide with the greatest expected redevelopment potential. The list promotes renewed focus on accelerating work and progress at all Superfund sites while working to successfully return Superfund sites to productive use in communities across the country.

Superfund Redevelopment created Ready for Reuse fact sheets for all of the sites on the list and the Redevelopment Story Map (<https://arcg.is/vn8H5>), an interactive map-based tool highlighting the sites. EPA used the lessons learned from this effort to expand support to even more sites and now maintains a list of Redevelopment Opportunity sites.

Superfund Redevelopment also took on new activities and updated existing tools to address Superfund Task Force goals and action items:



170+

Responses to redevelopment-related prospective purchaser inquiries.



60+

Ready for Reuse fact sheets developed.



40+

Reports, case studies and videos published and posted.



35

Regional seed projects conducted to support redevelopment and community revitalization.



18+

EPA and public trainings – including nine webinars, five conferences, four EPA staff trainings and other events – provided.



529

Superfund sites in reuse and continued use with economic data available tracked and updated (see page 16).



94

Redevelopment opportunities and site readiness for reuse documented. In 2017 and 2018, 94 sites achieved EPA's Sitewide Ready for Anticipated Use performance measure.



Often

Superfund Redevelopment website regularly updated to inform interested parties about reuse opportunities at sites and connecting communities exploring site reuse opportunities.



70+

Stakeholders at 14 Superfund sites recognized with Excellence in Site Reuse awards. The contributions and partnership of six state agencies were also recognized with the State Excellence in Supporting Reuse Award.

“EPA helps communities participate in the cleanup process and realize the redevelopment potential of Superfund sites, transforming formerly contaminated land across the country into valuable community resources.”

- Steven Cook,
Deputy Assistant Administrator,
EPA Office of Land and
Emergency Management

New Bedford Harbor

(New Bedford, Massachusetts)

From 1938 to the late 1970s, industrial facilities discharged wastes into New Bedford Harbor. Today, EPA is addressing the 18,000-acre site through a cleanup of the estuary system from the upper Acushnet River into Buzzards Bay. After cleanup, the city of New Bedford plans to reuse EPA's cleanup facilities as an intermodal transportation facility. The area, located on the city's working waterfront, will include berthing space for freighters and commercial fishing vessels, a 55,000-square-foot warehouse, and a rail spur that connects to the city's rail yard. In addition, EPA's demolition of the 11-acre Aerovox mill will provide the city with space for future redevelopment along the Acushnet River. EPA Administrator Andrew Wheeler joined community stakeholders and EPA staff for a boat tour of the site's ongoing cleanup in July 2018, as part of activities highlighting Redevelopment Opportunity sites.

2018 Redevelopment Opportunity Sites (partial listing)

Crater Resources (Pennsylvania)
Eagle Mine (Colorado)
Florida Steel Corp. (Florida)
Frontier Hard Chrome Inc.
(Washington)
Kerr-McGee Chemical Corp. –
Columbus (Mississippi)
Koppers Co., Inc. (South
Carolina)
Libby Asbestos (Montana)
Many Diversified Interests, Inc.
(Texas)
MGM Brakes (California)
New Bedford Harbor
(Massachusetts)
Peoples Natural Gas Co. (Iowa)
Raymark Industries, Inc.
(Connecticut)
Sharon Steel Corp. (Utah)
St. Louis River (Minnesota)
U.S. Smelter and Lead Refinery,
Inc. (Indiana)

**Cleanup of the
New Bedford
Harbor site**



Community Connections



Record Year for Regional Seed Projects

To date, Superfund Redevelopment has supported over 250 regional seed projects. In 2018, it supported 23 of these projects – the most regional seed projects supported by Superfund Redevelopment in a single year.

BJAT LLC (Franklin, Massachusetts): A reuse assessment for this former rubber manufacturing facility identified opportunities for industrial, storage, solar and recreational uses.

Peterson Puritan (Cumberland and Lincoln, Rhode Island): Working sessions with local stakeholders built on reuse assessment findings to address the ownership and reuse of this abandoned landfill.

Arrowhead Refinery (Hermantown, Minnesota): Facilitation services tackled reuse barriers and identified ways to integrate remedy and reuse considerations for this former waste oil recycling facility.

Lee's Lane (Louisville, Kentucky): A reuse assessment helped the community explore how site features and reuse can support neighborhood revitalization, ecological restoration and city planning goals.



Regional Seeds

Superfund Redevelopment provides these resources to communities at the request of EPA's regional offices. Regional seeds provide an important catalyst for communities to begin the process of returning Superfund sites to productive use. The seed concept provides an initial investment to bring stakeholders to the table, clarify land use controls, and identify suitable reuse options that communities can pursue.

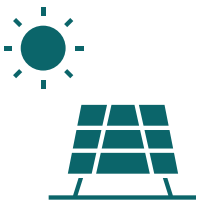
Once the reuse planning process gains momentum, communities leverage the initial investment with resources from local governments, stakeholders, states and organizations to continue the process of restoring a Superfund site to productive use.





Iron King Mine – Humboldt Smelter (Dewey-Humboldt, Arizona): Building on an earlier reuse assessment, Superfund Redevelopment is facilitating reuse working sessions with community stakeholders to explore opportunities for recreational amenities on site that celebrate the area’s industrial heritage and leverage the regional tourism economy.

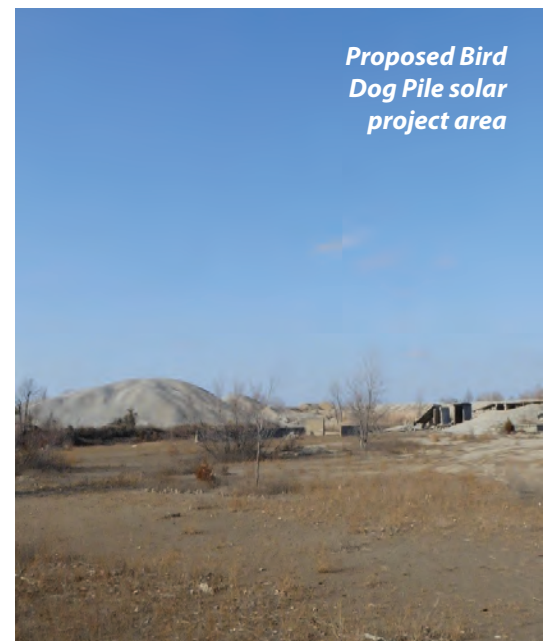
McCormick & Baxter (Portland, Oregon): Facilitated reuse discussions that include the University of Portland are focused on long-term ownership and stewardship of this former creosote wood-treating facility.



Solar Assessments Bringing Stakeholders Together, Energizing the Future

At the Tar Creek Superfund site in Ottawa County, Oklahoma, Superfund Redevelopment funding has supported plans for an innovative solar facility. Superfund Redevelopment worked on a solar reuse assessment in partnership with the Grand River Dam Authority and the Quapaw Nation. EPA and the Quapaw Nation are developing cleanup plans for an 1,100-acre solar project area known as the Bird Dog Pile. By coordinating cleanup with planning for the solar facility, the goal is to expand the solar footprint and reduce flood risk and construction costs. The project area has the potential to support a 150-megawatt solar facility.

At the Yeoman Creek Landfill site in Waukegan, Illinois, the site owner, the local school district and the site’s responsible parties worked with Superfund Redevelopment to evaluate the site’s capacity to support utility-scale solar. The assessment identified a 45-acre area suitable for a 6-megawatt facility. Based on the solar assessment, the Waukegan School District selected a solar developer; project planning is now underway.



*Proposed Bird
Dog Pile solar
project area*



Trainings and Outreach Cultivating Dialogue and Learning

EPA provides stakeholders with the information they need to return sites to beneficial use by sharing reuse lessons learned during webinars and at trainings and conferences. In 2018, Superfund Redevelopment presentations and trainings focused on community engagement, redevelopment and the Superfund process, and industrial reuse.

- The “Superfund and Cultural Competence – Building a Foundation for Effective Community Engagement” webinar shared how understanding cultural competence skills and tools can help people connect and work together more effectively.
- Training sessions focused on ways that redevelopment efforts can be incorporated throughout Superfund cleanups and how to facilitate revitalization opportunities at capped sites.
- The “Bringing Industrial Reuse to Superfund Sites” webinar helped stakeholders learn about ways to advance economic development opportunities at sites nationwide.

“The seminar was interesting, timely and relevant to other work that we are doing. I plan to participate in future seminars.”

- 2018 Participant



Superfund Redevelopment Initiative's 20th Anniversary: Making History

Former Waste Disposal Area in Virginia Now Home to Recreational Jewels

The Chisman Creek Superfund site is one of the first Superfund sites in the country, and its pioneering redevelopment continues to be a national success story two decades later.

The site is located near historic Yorktown and the Hampton Roads metropolitan area. Chisman Creek flows into the nearby Chesapeake Bay, one of the world's most important estuaries. Before the site was cleaned up, it was unusable land that provided no community benefits. Now the site has been transformed into two jewels of the York County park system. High-quality recreation facilities at two popular athletic parks have hosted thousands of games and visitors. New softball fields were recently added to the parks.





*Libby's Riverfront Park
ribbon-cutting ceremony*



Reuse Planning in Montana Builds Strong Foundations for the Future

Superfund Redevelopment-sponsored reuse planning efforts for a former lumberyard at the Libby Asbestos Superfund site and the Libby Groundwater Contamination site in Libby, Montana, have built stakeholder partnerships and resulted in an action plan for Kootenai Business Park.

In addition to the cleanup restoring neighborhoods and business areas, reuses on other parts of the site include Riverfront Park. The facility has river access, pavilions (below), a memorial, parking and picnic tables. People put in boats to experience one of the area's many renowned fisheries. At dusk, others take a quiet moment to sit and enjoy the park's mountain views and watch the water flow past. Groups come together for community gatherings and celebrations. Superfund Redevelopment has published an in-depth case study and a video documenting cleanup, public health and revitalization outcomes in Libby.

“We’re very optimistic about what’s going on in Libby. I just see a new energy everywhere, an enthusiasm for the area, and how beautiful it is.”

- Ellen Johnston,
Local Business Owner



*A pavilion and picnic
area at Riverfront Park*



Sites in Florida, Iowa, Oregon and West Virginia Recognized for Excellence in Reuse

Each year, EPA's Excellence in Site Reuse awards recognize partners who have worked collaboratively and gone the extra mile to support site redevelopment in ways that are beneficial to communities and compatible with cleanups. In 2018 and 2019, stakeholders at sites in Florida, Iowa, Oregon and West Virginia were among those EPA recognized for their contributions.



At the Piper Aircraft Corp./Vero Beach Water & Sewer Department Superfund site in Vero Beach, Florida, the company reduced EPA's long-term stewardship responsibilities through "greening" its environmental management practices, coordinated cleanup design to ensure its compatibility with the site's continued use, and continues to be a good neighbor in the community, protecting human health and the environment while also supporting the local economy.



In Dubuque, Iowa, EPA recognized two reuse successes with the Leading Environmentalism and Forwarding Sustainability (L.E.A.F.S.) Award. City and state agencies and the MidAmerican Energy Company earned the award for revitalization of the Peoples Natural Gas Co. Superfund site, which is now home to the Jule Operations and Training Center.

At the John Deere (Dubuque Works) site, the company seeded native grasses and wildflowers to stabilize soil on part of a landfill, and installed a walking trail to promote employees' wellbeing.



In Portland, Oregon, the Howard Orlean Excellence in Site Reuse Award recognized the successful redevelopment of the Reynolds Metals Company Superfund site into the thriving Troutdale Reynolds Industrial Park. FedEx Ground anchored the industrial park, which opened in 2010 and provides about 1,000 jobs. A new Amazon fulfillment center, currently under construction, will double the number of jobs on site.



At the Sharon Steel (Fairmont Coke Works) site in Fairmont, West Virginia, EPA recognized project partners for their commitment and dedication in restoring the 97-acre site. The West Virginia State Police Troop 1 Headquarters is built on part of the site. Fifty additional acres are currently available for reuse.

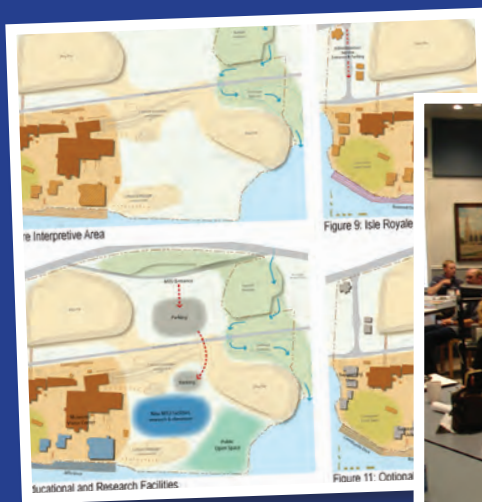


Superfund Redevelopment Initiative's 20th Anniversary: Making History

Renowned Copper Smelter in Michigan Now Part of National Historic Landmark

Built in 1898, the Quincy Smelter in Houghton County, Michigan, is the best-preserved copper smelter in the country. EPA, the National Park Service, the Keweenaw National Historical Park Advisory Commission, the Michigan Department of Environmental Quality, local governments and community organizations worked together to address the site's environmental contamination while preserving the area's remarkable historical resources. Today, the smelter is part of the Quincy Mining Company National Historic Landmark.

Efforts by Superfund Redevelopment and community leaders led to the creation of a shared vision and reuse plan for the site and spurred inter-agency collaboration resulting in its remediation. Following cleanup, federal, state and local partners identified an ownership transfer strategy, coordinated the site's deletion from the National Priorities List, and assisted with transfer of site ownership to the Advisory Commission. The Advisory Commission has since worked to further stabilize the site's historic structures and address additional environmental issues. It has also collaborated with local partners to provide tours of the site and prepare for the area's long-term management as a part of Keweenaw National Historic Park and as a gateway to Isle Royale National Park.



Superfund Redevelopment

FIRST REUSE ASSESSMENT

In 2000, the city of Midvale, Utah, used its Superfund Redevelopment pilot grant to develop the groundbreaking Bingham Junction Reuse Assessment and Master Plan for the Midvale Slag Superfund site. Today, the site is home to Bingham Junction, a thriving mixed-use development supporting thousands of jobs (see page 4).

FIRST READY FOR REUSE DETERMINATION

In 2003, EPA, the Texas Commission on Environmental Quality and Texas City co-signed the nation's first Ready for Reuse Determination for the Tex Tin, Inc. Superfund site in Texas City, Texas. The EPA site status report summarized site history, cleanup actions and the remedy's compatibility with industrial uses. A bulk oil storage and transfer facility is now located on site. To date, Superfund Redevelopment has supported 23 Ready for Reuse Determinations.

FIRST EPA REUSE PERFORMANCE MEASURE

In 2006, the Sitewide Ready for Anticipated Use performance measure became EPA's first reuse-focused Government Performance and Results Act performance measure.



FIRST PILOT GRANTS FOR SUPERFUND REDEVELOPMENT

In 1999, Superfund Redevelopment provided the first resources to communities to explore Superfund reuse through pilot-grant cooperative agreements. The pilot program helped almost 70 communities lay the groundwork for successful Superfund Redevelopment projects. Today, Superfund Redevelopment's in-kind resources continue to provide on-the-ground reuse support to communities. Since 1999, Superfund Redevelopment has provided efficient, dynamic reuse support services to over 350 communities nationwide.

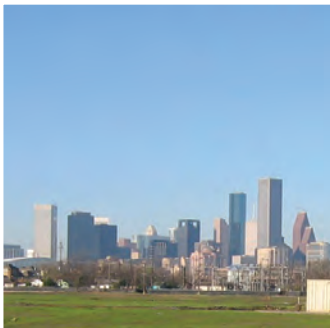
FIRST SUPERFUND REUSE INQUIRY PROCESS

Supported by Superfund Redevelopment and pioneered in EPA Region 4 in 2005, the Prospective Purchaser Inquiry Service provides accurate, comprehensive information about Superfund sites free of charge. A response team helps address questions prospective purchasers may have about a site's Superfund status, helping them make informed and timely decisions about the purchase and use of a Superfund site.

Firsts

FIRST-EVER CLEANUP BY A NON-LIABLE PARTY

A Superfund Redevelopment pilot grant to the city of Houston, Texas, supported community planning efforts for the potential reuse of the Many Diversified Interests, Inc. (MDI) Superfund site. The resulting plan recommended mixed residential, recreational and neighborhood-scale commercial uses for the site. In 2006, to help spur redevelopment opportunities at the site, a non-liable prospective purchaser entered into an agreement with EPA to implement part of the cleanup plan. The prospective purchaser completed cleanup of on-site soils in 2008. MDI is the first-ever Superfund cleanup conducted by a non-liable party; it saved taxpayers \$6.6 million in cleanup costs.



FIRST EXCELLENCE IN SITE REUSE AWARD

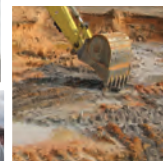
In December 2008, EPA Region 4 recognized the Port Salerno Industrial Park (PSIP) in Martin County, Florida, with the first-ever Excellence in Site Reuse Award for its reuse of the Solitron Microwave Superfund site. PSIP purchased the site property in 2003 and coordinated with EPA during construction of an industrial park for warehouse, office space and commercial facilities. This award inspired all EPA Regions to develop similar programs.

FIRST TRACKING OF THE BENEFICIAL EFFECTS OF REUSE

In 2011, Superfund Redevelopment started tracking the beneficial effects of reuse in communities. It tracks the number of businesses located on Superfund sites, as well as the number of employees, annual income and annual sales (see page 16).

FIRST STATE EXCELLENCE IN SUPPORTING REUSE AWARD

In 2014, EPA developed the State Excellence in Supporting Reuse Award to recognize state partners whose work has led to lasting benefits that enhance community quality of life and ensure the long-term protectiveness of site remedies and stewardship of the environment. In its inaugural year, EPA recognized three state agencies – the Florida Department of Environmental Protection, the Michigan Department of Environmental Quality and the Utah Department of Environmental Quality.



FIRST NONPROFIT REDEVELOPMENT PARTNERSHIPS

Superfund Redevelopment has built a network of partner organizations – the Academy of Model Aeronautics, the Pollinator Partnership, the Rails-to-Trails Conservancy, The Trust for Public Land, the U.S. Soccer Foundation – to help communities pursue redevelopment opportunities. To learn more about Superfund Redevelopment partners, visit <https://www.epa.gov/superfund-redevelopment-initiative/superfund-redevelopment-partnerships>.

The Economics of Superfund Redevelopment

Superfund Redevelopment collects and maintains economic data for Superfund sites in reuse and continued use. It has estimated the national economic beneficial effects of Superfund sites in reuse and continued use since 2011. The results are remarkable. In fiscal year 2018, 529 Superfund sites supported 8,690 businesses that provided 195,465 jobs, resulting in \$13.3 billion in estimated annual employment income and \$52.4 billion in annual sales. Cleaned-up sites in use also generate property tax revenues for local governments.

Superfund Redevelopment conducted the research that identified and confirmed these findings. Its reports highlight these economic numbers by EPA Region, recognizing beneficial impacts at the state level. Superfund Redevelopment case studies take a closer look at community benefits provided by these sites with new and ongoing uses.

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

Superfund sites across the country are home to industrial and commercial parks, retail centers, government offices, and neighborhoods. Many sites continue to host industrial operations such as large-scale manufacturing facilities. Other sites support natural areas, parks and recreation facilities.

Sites in Reuse and Continued Use: Business and Job Highlights (2018)



529
Sites



8,690
Businesses



\$52.4
Billion dollars
in annual
sales



195,465
People
employed



\$13.3
Billion dollars
in annual
employee
income



Bunker Hill (Coeur d'Alene Basin, Idaho)

This Superfund site is part of one of the largest historic mining districts in the world. Today, the site supports a wide range of commercial, industrial, public service, residential and recreational reuses. The site is now home to the Silver Mountain Resort, a year-round tourist destination. The Trail of the Coeur d'Alenes, a 72-mile scenic bike trail, passes through the site. Cleanup also resulted in significant ecological benefits, including the restoration of once-barren hillsides across the site.

Site businesses employ over 2,800 people, providing about \$105 million in annual employment income and generating an estimated \$346 million in annual sales. Site properties are currently valued at nearly \$282 million and generate about \$4.4 million in annual property tax revenues.



Havertown PCP (Philadelphia, Pennsylvania)

At this former wood-treating facility, an 80,000-square-foot on-site YMCA facility now serves 24,000 members. Thoughtful remedial design resulted in a cap that contains contaminated soil and allowed for construction of a new storage facility on top of it. Five commercial businesses at the site generate over \$9.3 million in annual sales. They employ over 400 people, providing annual employment income of over \$14 million to the local community. Site property parcels have a total property value of \$7.8 million and generate more than \$14,000 in tax revenues.



Joslyn Manufacturing & Supply Co (Minneapolis-St. Paul, Minnesota)

This former wood-treating facility is now a busy commercial and industrial park. Businesses at Twin Lakes Business Park employ about 291 people and provide nearly \$36.2 million in annual income. Facilities at the business park offer commercial and industrial space with a total estimated market value of nearly \$26.9 million.



Kennecott South Zone (Salt Lake County, Utah)

Open communication, extensive collaboration and innovative thinking helped contribute to the transformation of this industrial site into a thriving residential area and regional economic hub. Operable unit 7 (OU7) and surrounding areas support Daybreak, the largest master-planned community in Utah. Businesses in OU7 employ about 914 people, providing nearly \$38 million in annual employment income and generating an estimated \$143.2 million in annual sales.



Phoenix-Goodyear Airport Area (Goodyear, Arizona)

Cleanup has enabled the continued operation of one of the Southwest's major aviation and defense-related manufacturing hubs. Treated groundwater from the site provides billions of gallons of clean water to the surrounding community for various uses. Agricultural reuse on part of the site also helps stabilize and improve the soil while providing hay for livestock feed. In total, 31 site businesses employ about 1,025 people, providing annual employment income of over \$40 million. Site properties generate nearly \$165,000 in tax revenues and have an estimated property value of over \$43.5 million.



State Marine of Port Arthur/Palmer Barge Line (Port Arthur, Texas)

From the 1970s until the 1990s, marine industrial activities took place at these two adjacent Superfund sites. Today, after cleanup, site reuses include industrial barge cleaning and repair operations and office space. These businesses generate tens of millions of dollars in annual sales and contribute millions of dollars in estimated annual employee income.



Wells G&H (Woburn, Massachusetts)

A Superfund Redevelopment-funded reuse planning process enabled the community to explore options for three site properties and develop a comprehensive reuse plan. A former auto-parts property is now the home of the Holland Arena ice rink. Recreation trails are now located on city-owned property at the site. The W.R. Grace property is now the location of restaurants and a hotel. Businesses on properties associated with cleanup actions support 297 jobs and provide over \$12 million in annual employment income. These businesses generate almost \$47 million in sales.



Rocky Mountain Arsenal (Denver, Colorado)

This former military and pesticides manufacturing facility has undergone extensive cleanup and is now one of the largest urban wildlife refuges in the United States. Today, over 340,000 annual visitors enjoy fishing, hiking and bird watching at the Rocky Mountain Arsenal Wildlife Refuge, which is one of the most visited natural areas in the country. It supports hundreds of species of wildlife, including bison, prairie dogs, bald eagles and black-footed ferrets. In addition, a 917-acre area at the site supports a high school, the Commerce City Civic Center, 400 acres of community parks and soccer fields, a 25,000-seat stadium, and room for commercial development.

BENEFITS OF REUSE at Superfund sites

JOB DEVELOPMENT



In FY 2018, at 529 Superfund sites in reuse:

8,690



businesses operating

195,465



people employed

\$13.3B



annual employment income

REVENUE

At these Superfund sites, EPA spent \$13+ billion



In 2018 at these sites, operating businesses generated \$52+ billion

4x EPA spending



Over the past 8 years, operating businesses generated \$263+ billion

20x EPA spending



The cumulative total does not include funds spent by potentially responsible parties (PRPs) at sites where PRPs conduct cleanups. Values were adjusted for inflation using the appropriate indexes.

Best Practices – Inspiring New Possibilities

Superfund Redevelopment captures the stories of people and organizations that have returned Superfund sites to beneficial use to inspire and guide other communities. These stories are captured in fact sheets, case studies, videos and other materials and shared on social media, in webinars and on the Superfund Redevelopment website. Compelling recent Superfund Redevelopment stories from across the country are presented below.



Indian Island *(Humboldt Bay, California)*

Indian Island is the long-time cultural and spiritual home of the Wiyot people. Part of the island – the Indian Island Superfund site – was an active shipyard for more than a century. Extensive collaboration between the Wiyot Tribe and local, state and federal agencies, including EPA, has made possible major cultural and environmental restoration efforts. Over more than a decade, the Wiyot Tribe leveraged more than \$2.8 million in state and federal resources to clean up the site. In 2013, the tribe held its world renewal ceremony on site for the first time in more than 150 years. The tribe's future plans for the site include tribal gathering areas, cultural display buildings, a restored dock and canoe landing, a fire ring, an interpretative trail, and camp kitchen facilities.



Bayou Bonfouca *(Slidell, Louisiana)*

This site was contaminated with waste material from a wood-treating plant. Working with federal and state partners, cleanup restored 1.5 miles of the bayou, which the site owners donated to the city of Slidell. Today, the area is home to municipal services departments, Heritage Park, a public boat launch and a state-of-the-art marina.



Rocky Flats Plant *(Golden, Colorado)*

This site was home to one of 13 nuclear weapons production facilities in the United States during the Cold War. Managed by the U.S. Department of Energy (DOE), the plant was active from 1952 to 1994. Today, following a \$7 billion cleanup, part of the site is now home to the Rocky Flats National Wildlife Refuge. Established in 2007, the refuge is managed by the U.S. Fish and Wildlife Service. The 5,237-acre area has striking vistas of the Front Range of the Rocky Mountains and rolling prairie grasslands, woodlands and wetlands. It is home to 239 wildlife species, including prairie falcons, deer, elk, coyotes, songbirds and the federally threatened Preble's Meadow jumping mouse. EPA Administrator Andrew Wheeler joined agency officials to celebrate the opening of a new trail system at the refuge in September 2018.



Eagle-Picher Henryetta (Henryetta, Oklahoma)

A new community health clinic on a former zinc smelter site in Henryetta, Oklahoma, is providing residents with vital medical, dental and behavioral health care services. Superfund Redevelopment helped make the project possible, providing support for the development of a Ready for Reuse Determination for the site. The environmental status report clearly communicated that building a health clinic on site would be compatible with the site’s remedy and remain protective. The determination helped in procuring a \$1 million grant from the U.S. Department of Health and Human Services for the clinic’s construction.



In October 2018, years of hard work came to fruition – the East Central Oklahoma Family Health Center opened to the public. The 7,600-square-foot facility includes 12 exam rooms and a procedure room as well as three dental units with digital X-ray services. Community members and officials from the city of Henryetta, EPA, the Oklahoma Department of Environmental Quality and other project partners celebrated the center’s opening. EPA also recognized the community and the health center with a 2018 Excellence in Site Reuse Award.



PJP Landfill (Jersey City, New Jersey)

PJP Landfill now hosts a state-of-the-art warehouse and distribution center after EPA and the state of New Jersey redesigned the cap to accommodate redevelopment. EPA recognized the New Jersey Department of Environmental Protection and Prologis Corporation for their efforts to redevelop the site.



Continental Steel (Kokomo, Indiana)

Today, following cleanup, this former steel manufacturing facility hosts a range of facilities, including the Wildcat Creek Soccer Complex and a solar energy array providing enough energy to power 1,000 homes. Cleanup of Wildcat Creek allowed for flood mitigation and boat ramp access. Other redevelopment outcomes at the site include a stormwater retention pond, wind turbines, landscaping and road infrastructure improvements.



31 Water Street (Amesbury, Massachusetts)

Cleanup and redevelopment of this former industrial area is a vital part of the community’s city-wide redevelopment efforts. Today, Heritage Park, a recreation area and education resource, is located on the site. A bandstand and river walk will soon be added. Future plans call for conversion of a former carriage house on site into a community heritage center.



Henry's Knob (Clover, South Carolina)

An innovative remedy at this former mine site is protecting public health and the environment while also serving as vital native habitat for pollinators and other species.



East Helena (East Helena, Montana)

The East Helena Superfund site includes a former lead smelter, several neighborhoods and surrounding agricultural lands. The site's cleanup is enabling a bright, mixed-use future focused on community heritage, culture and the arts, education, recreation, and economic development. Through a Superfund Redevelopment community workshop, community representatives and key stakeholders developed a vision and long-term goals and priorities to shape the cleanup and local planning processes.



Today, East Helena Public Schools has built a new elementary school on site and broken ground for construction of a new public high school. Montana-based developers have purchased hundreds of acres of site property and are working with the local government on plans for a residential subdivision and a mixed-use project. Prickly Pear Creek has been restored. An ArtPlace grant is funding a robust community collaborative effort to create a culinary education center and employment opportunities in the food and hospitality sector. A four-week cooking camp in East Helena recently taught local children about the importance of fresh ingredients, how to waste less food, local food systems, nutrition, and safety and life skills.



Eagle Rock Lake at Chevron Questa Mine (Questa, New Mexico)

After contamination from this mine impacted Eagle Rock Lake, the community focused on its restoration as part of plans for outdoor recreation and tourism. Today, the area is once again a valued community resource. The lake is stocked with rainbow trout. People fish from piers along its shores and enjoy trails designed to be accessible to people with disabilities.



Pepper Steel & Alloys, Inc. (Medley, Florida)

EPA, state agencies, the Miami-Dade County Department of Environmental Resources Management and other project partners worked together to clean up this industrial area and return it to productive use. Site reuses have included truck storage and staging as well as concrete manufacturing. Today, a recreational boat company is working on plans for a boat manufacturing facility on the site's northern parcel. Another parcel has been subdivided and sold; planning for additional site development on these areas is underway. The local government is also exploring ways to improve access and infrastructure at the site.



Tulsa Fuel and Manufacturing (Collinsville, Oklahoma)

Following cleanup of this former zinc smelter, Shadow Mountain Honey Company has expanded its operations onto part of the site. The area is now home to six honeybee hives, with 16 hives planned for the near future. Clover planted during site restoration makes an ideal habitat for bees. Cleanup resulted in the transformation of this once-contaminated smelter property into restored ecological habitat, one well-suited to supporting the protection of bees and production of high-quality honey.



Ohio River Park (Neville Island, Pennsylvania)

This former landfill is now home to the Island Sport Center, a 32-acre sports and entertainment complex. It includes a golf training facility, a fitness center, a restaurant, a covered golf dome, outdoor areas for track, lacrosse, soccer and baseball, a shotput practice area, parking and a 5-acre building housing two Olympic indoor ice-skating rinks. Several of these uses are located on top of capped areas of the site.



Whitmoyer Laboratories (Lebanon County, Pennsylvania)

A veterinary and pharmaceutical manufacturing plant operated at this 22-acre site for 50 years. After cleanup, EPA entered into a Prospective Purchaser Agreement with Jackson Township to help speed the locality's acquisition of the site property for recreational use. Today, Jackson Recreational Park includes baseball and soccer fields as well as a scenic walking trail. The trail connects the community with other local and regional natural resources such as Tulpehocken Creek and the historic Union Canal.



California Gulch (Lake County, Colorado)

EPA worked with the state, the community and the site's potentially responsible parties to coordinate redevelopment and ecological restoration work across this 18-square-mile former mining area. Redevelopment includes an urban development project at an old railyard, a community sports complex, the nationally recognized Mineral Belt Trail, and recreational trails along the Arkansas River. Colorado Parks and Wildlife also honored the area with a Gold Medal Waters designation, which notes the accomplishment of the Upper Arkansas River's improved water quality and revitalized habitat for trout and other wildlife.



Superfund Sites Redeveloped for Alternative Energy Generation

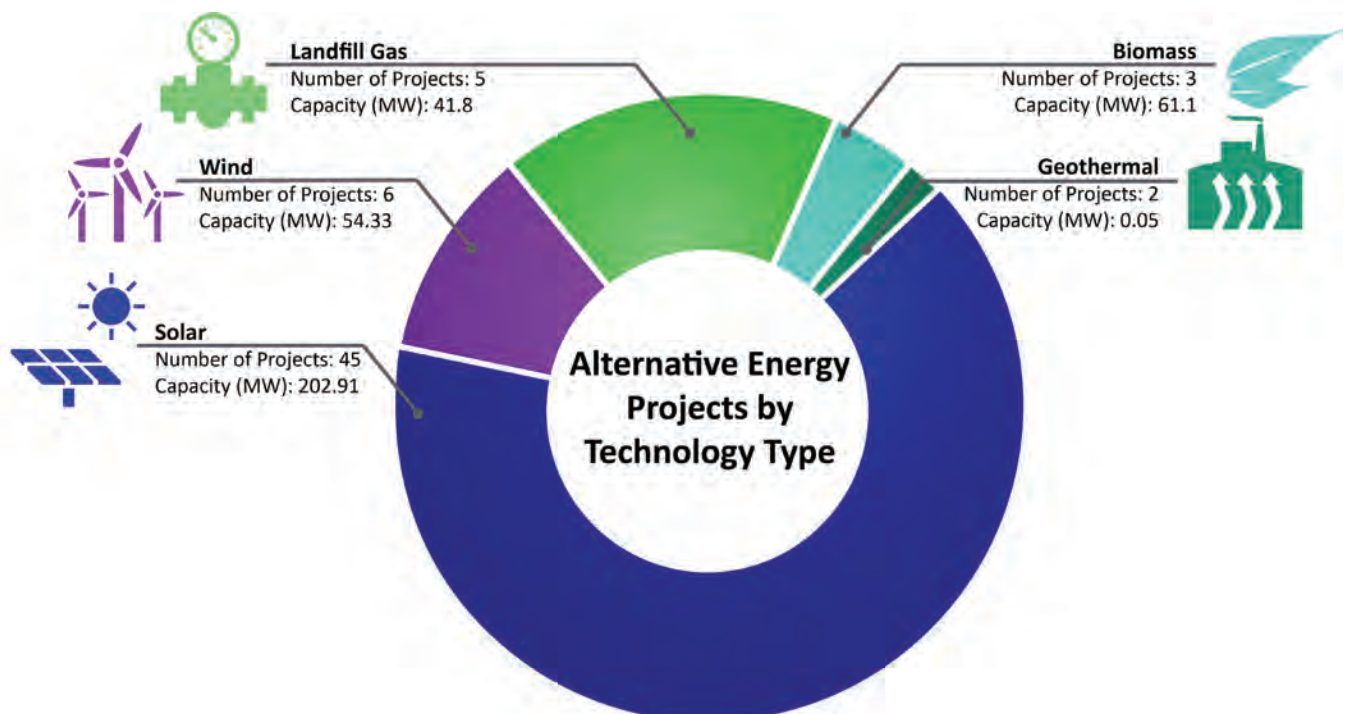
Renewable energy resources – wind, solar, biomass and geothermal energy – are non-polluting, inexhaustible and increasingly cost-competitive. Alternative energy resources include renewable energy production as well as other energy sources, such as converting methane gas produced during natural decomposition of wastes into an electricity source. Superfund sites can be well suited for alternative energy production. Sites in urban and rural areas near utilities and transportation networks help keep development costs low.



Alternative energy resources can help communities create jobs and diversify local economies. They also are an important part of America’s energy security and environmental sustainability. Nationwide, there are at least 75 Superfund sites in planned or actual alternative energy reuse; several of these sites are also using renewable energy technologies as part of green remediation strategies for site cleanups. Superfund Redevelopment helps communities reclaim and reuse contaminated lands for a wide range of purposes, including alternative and renewable energy.

Many active and former Superfund sites are now home to alternative energy facilities. As of September 2018, 61 alternative energy projects are located on 59 Superfund sites; they have a total installed capacity of 360 megawatts, enough to power more than 95,000 homes.

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Innovative Solar Projects Powering New England Communities



W.R. Grace & Co., Inc
(Acton, Massachusetts)

A Superfund Redevelopment reuse assessment for this former industrial manufacturing facility helped local stakeholders identify key reuse considerations for the site. After the site's remedy was in place, the town of Concord acquired 70 acres of the site and installed a solar array. Construction of the array, which has 15,000 panels and produces 4.5 megawatts of power, finished in 2017. The array supplies the town with 4.5 percent of its annual power needs and powers the equivalent of 625 homes. The project's second phase – a school bus depot – is up next. The depot will be powered by the solar array, with surplus power fed into the town's energy grid. A third phase will focus on construction of a wastewater treatment facility on site.



Somersworth Sanitary Landfill
(Somersworth, New Hampshire)

Through a solar pre-feasibility study, Superfund Redevelopment evaluated solar resource availability, remedy compatibility and project size options for this 26-acre landfill. The study identified a 15-acre area that could support a 4-megawatt solar facility. It also provided the local government with an evaluation of the project's potential financial impact that drew the attention of Somersworth's municipal leadership. In 2017, the city selected a solar developer and the solar project design development process started in 2018.

Before and After – Superfund Transformations

PCB Inc. of Missouri

Kansas City, Missouri



Extensive cleanup of this former waste disposal area made possible the construction of a mixed-use project that combines luxury apartments and ground-floor shopping areas. Today, the property is home to the Arterra 12-story luxury residential tower, the first high-rise apartment project built in the Crossroads Arts District area of downtown Kansas City.

Industri-Plex

Woburn, Massachusetts



After more than 100 years of chemical manufacturing and processing, the site is home to open space, an interstate highway exchange, a shopping center, an office park and a hotel complex. The James Anderson Regional Transportation Center serves 1,200 commuter train riders daily and almost 20,000 Amtrak riders annually.

Bunker Hill Mining and Metallurgical Complex

Coeur d'Alene Basin,
Idaho



BEFORE



AFTER

This former mining and smelting area is now home to Silver Mountain Resort, residential areas, an 18-hole golf course, Silver Valley Business Center, commercial and industrial businesses, recreation areas and restored wetland habitat.

Midvale Slag

Midvale, Utah



BEFORE



AFTER

This former smelter area is now home to a thriving mixed-use development that includes light rail system infrastructure, residences and assisted living facilities, office buildings for national and international companies, a supermarket, retail stores, and recreational amenities.



Superfund Redevelopment Initiative's 20th Anniversary: Making History

New Jersey Project Transforms Industrial Manufacturing Site into Riverfront Park, Public Transit Facility and Historic Preservation Space

Almost two decades ago, funded by a Superfund Redevelopment pilot grant from EPA, Burlington County developed a reuse plan for the Roebling Steel Company Superfund site, a former steel wire and cable product manufacturing facility. It identified several community priorities, including commercial and industrial development, open space, and historic preservation. The plan meshed well with the site's cleanup, which included removing contaminated materials, demolishing buildings, and restoring the shoreline and wetlands.

Today, a New Jersey Transit light-rail station and parking areas are located on site. Restoration of the historic Main Gate House turned the former gateway to the Roebling Mill into part of the Roebling Museum. The museum provides 7,000 square feet of exhibit space documenting the community's social and industrial history. EPA also collaborated with Florence Township to make sure the remedy would support an open space recreation resource on site. The expansion of Roebling Park includes 34 acres of open space, walking and biking trails, and views of the Delaware River.

Additional site uses are currently being explored and the site is featured on EPA's Redevelopment Opportunities List of sites with the greatest expected redevelopment and commercial potential. Other site areas that are not currently in use could host commercial or industrial development in the future. EPA will continue to work with stakeholders to support protective reuses and continued uses and ensure the long-term stewardship of the remedy.



*Reuses at the Minot
Landfill Superfund site in
North Dakota include hay
harvesting and snow staging
during major storms*



Acknowledgements and Looking Forward

Superfund Redevelopment would like to acknowledge the support of the people and organizations whose dedicated efforts make the reuse of Superfund sites possible. EPA's Regional Superfund Redevelopment Coordinators, EPA site cleanup teams, and regional and headquarters staff have each made vital contributions. EPA's diverse network of partners – including tribes, states, local governments, community organizations, businesses and citizens – have partnered with EPA and undertaken compelling journeys to return Superfund sites to safe and appropriate uses.

In 2019 and beyond, EPA looks forward to new opportunities to support Superfund Redevelopment as a vital part of the Agency's mission to advance excellence in public health and environmental protection.

*View of the Iron King
Mine – Humboldt Smelter
Superfund site in Arizona*



In May 2017, EPA established a task force to restore the Superfund program to its rightful place at the center of the Agency's core mission to protect health and the environment.

epa.gov/superfund/superfund-task-force



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