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Superfund Sites Work for Communities:

How Superfund Redevelopment in EPA Region 5 Is Making a Difference in Communities

Figure 1: Naval Industrial Reserve Ordnance Plant site (Minnesota)

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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

The states in EPA's Great Lakes Region – Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin – have faced major changes in the manufacturing sector since the 1950s. Spurred by globalization, advances in technology and a transition to a service-based economy, these changes have contributed to massive job loss and substantial neighborhood and downtown decline in industrial communities across EPA Region 5. While continuing to emphasize manufacturing as an economic cornerstone and a source of jobs, state and local leaders across the Midwest are helping workers adjust to these large-scale economic changes and at the same time are instituting quality of life improvements to encourage workers and their families to stay in their communities. Much of this work centers on investing in workforce development, retaining existing businesses, encouraging new business development, and repurposing old industrial land, including Superfund sites. The Superfund program in EPA Region 5 is proud to play a role in these efforts.

The cleanup and reuse of Superfund sites can often restore value to site properties and surrounding communities that have been negatively affected by contamination. Site reuse can revitalize a local economy with jobs, new businesses, tax revenues and local spending. Reuse of Superfund sites can yield a number of other important social and environmental benefits for communities. Through programs like the Superfund Redevelopment Initiative (SRI), EPA Region 5 helps communities reclaim cleaned up Superfund sites. Factoring in future use of Superfund sites as part of the cleanup process helps pave the way for their safe reuse. In addition, Region 5 works closely with state agencies and local officials to remove barriers that have kept many Superfund sites vacant and underused for decades. EPA Region 5 also works to ensure that businesses operating on properties cleaned up under the Superfund program 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.



Figure 2: South Point Plant site (Ohio)

Superfund sites across Region 5 are now home to top-tier industrial and commercial parks, retail centers, government offices, condominiums and single-family residences. Many sites continue to host industrial operations, including large-scale manufacturing facilities. Some are now locations for alternative energy projects. Others have been transformed into ecological preserves, parks and recreation complexes. The on-site businesses and organizations on current and former Region 5 Superfund sites provide over 11,000 jobs and contribute an estimated \$643 million in annual employment income for Midwestern residents. Moreover, restored on-site properties in Region 5 generate over \$10 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 5. 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 approximately every two years. The reported beneficial effects may increase or decrease from previous profiles due to changes in the number of sites in reuse or continued use, changes in the number of on-site businesses, changes in data availability, and changes in individual-level business or property value data. Figures presented represent only a subset of all Superfund sites in reuse or continued use in Region 5.

¹ Business and property value tax figures represent only a subset of the beneficial effects of sites in reuse or continued use in Region 5. There are 48 Superfund sites in reuse or continued use in Region 5 for which EPA does not have business data, including 13 NPL federal facilities. Not all sites in reuse involve an on-site business or other land use that would employ people on the site. Several sites without businesses have beneficial effects that are not easily quantified, such as properties providing ecological or recreational benefits (parks, wetlands, ecological habitat, open space, etc.). There are 73 sites in reuse or continued use in Region 5 for which EPA does not have property value or tax data, including 13 NPL federal facilities.

Support for Superfund Reuse

EPA Region 5 is committed to making a visible difference in communities through the cleanup and reuse of Superfund sites. In addition to protecting the environment and human health through the Superfund program, Region 5 has partnered with stakeholders to encourage reuse opportunities. EPA Region 5 helps communities and cleanup managers factor in reuse considerations as part of site cleanup plans and evaluates remedies already in place to ensure appropriate reuse at cleaned-up sites. In addition, EPA participates in partnerships with communities and encourages the use of programs and initiatives to help redevelopment at Superfund sites take place in more environmentally and economically sustainable ways.

Reuse support efforts in EPA Region 5 include:

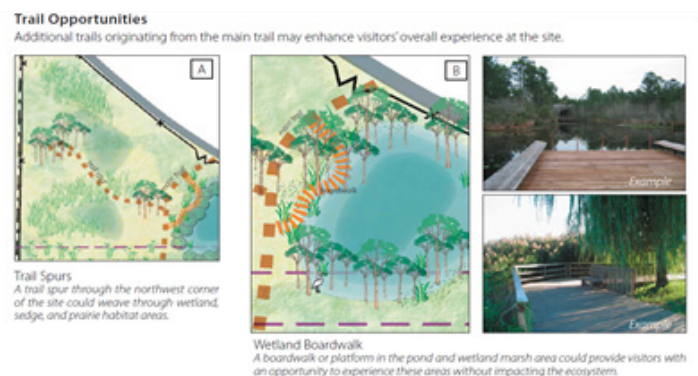
- Identifying and evaluating local land use priorities and opportunities to align these priorities with site cleanup plans through the reuse planning process.
- Facilitating cleanup and reuse discussions to help resolve key issues between parties interested in site redevelopment.
- Supporting targeted projects intended to help Region 5 communities and EPA find the right tools to move reuse forward at sites that remain unused.
- Making efforts to help address communities' and developers' liability, safety and reuse concerns related to Superfund site reuse through development of educational materials, comfort letters, developer agreements and environmental status reports – known as Ready for Reuse (RfR) Determinations – that provide information about the appropriate use of a site.
- Supporting partnerships with groups committed to putting Superfund sites back into use, such as the Academy of Model Aeronautics, 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.

All of these efforts have helped build expertise across Region 5, making it easier to consider future use of Superfund sites prior to cleanup and easier to identify opportunities for removing reuse barriers. These efforts also help other communities, state agencies, potentially responsible parties and developers in better understanding potential future uses for Superfund sites. In addition, they facilitate early engagement in the cleanup process, ensuring 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 3: Quincy Smelter site reuse planning (Michigan)



Figure 4: Excerpt from the Calumet Container site reuse framework (Indiana)



Superfund Reuse: The Big Picture

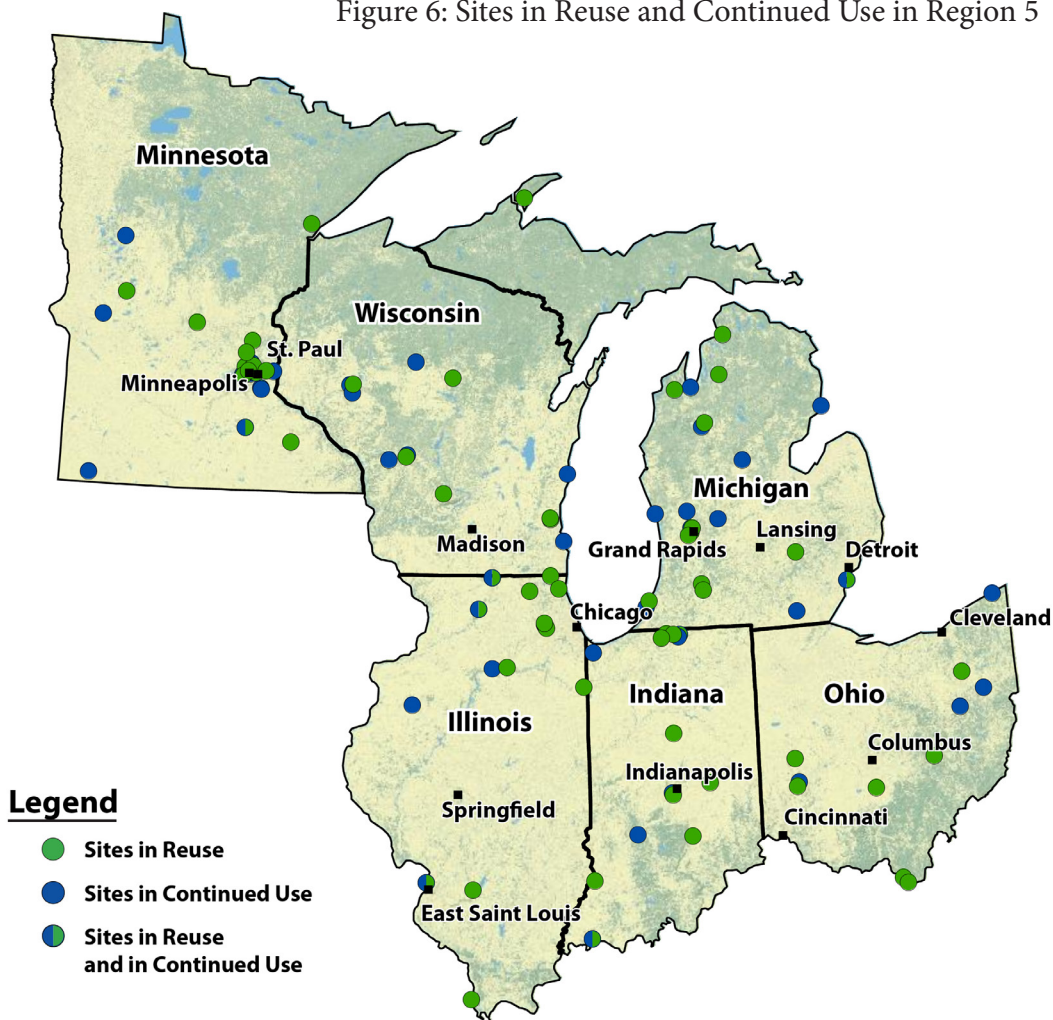
EPA takes immediate action at contaminated sites when warranted through short-term cleanup actions, also called removal actions. After these immediate actions, EPA refers sites warranting long term cleanup to EPA’s remedial program or state programs for cleanup. The National Priorities List (NPL) is a list of the most serious sites EPA targets for further investigation and possible remediation through the Superfund program. Once EPA places a site on the NPL, the Agency studies the type and amount of contamination at the site, identifies technologies that could address the contamination, and evaluates the alternative cleanup approaches. EPA next proposes a cleanup plan. After collecting public input, the Agency issues a final cleanup plan. EPA then cleans up the site or oversees the cleanup activities.² EPA has placed 310 sites in Region 5 on the NPL. The Agency oversees investigation and cleanup at an additional 32 Superfund Alternative Approach sites in the region, and performs or oversees short-term cleanup actions as well.



Figure 5: Koppers Coke site (Minnesota)

Whenever possible, EPA seeks to integrate reuse priorities into site cleanup plans. In Region 5, 110 NPL sites and 13 non-NPL Superfund sites have either new uses in place or uses that have remained in place since before cleanup.³ Many of these sites have been redeveloped for commercial, industrial and public service purposes. Others have been redeveloped for residential, recreational, ecological or agricultural purposes. Businesses and other organizations also use all or parts of other sites for storage or vehicle parking. In addition, redevelopment of some Superfund sites in Region 5 have helped spark redevelopment of nearby underutilized industrial land. 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 5



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

³ Eight of these non-NPL Superfund sites are long-time proposed NPL sites.

Beneficial Economic Effects of Superfund Site Reuse in Region 5

Businesses and Jobs

EPA has collected economic data for over 300 businesses, government agencies and civic organizations operating on 72 NPL sites and three non NPL Superfund sites in reuse and continued use in Region 5.⁴ See the State Reuse Profiles (pp. 12-17) for each Region 5 state’s reuse details. Businesses and organizations located on these sites fall within a number of different sectors, including manufacturing, professional, scientific and technical services, wholesale trade, and retail trade.

Most of the businesses and organizations located on current and former Region 5 Superfund sites tend to be stand-alone or branch operations. A smaller number of sites serve as the headquarters for a range of different companies. The Boise Cascade/Onan Corp./Medtronics, Inc. Superfund site, a former wood-treating facility near Minneapolis, Minnesota, for instance, serves as the headquarters location for Cummins Power Generation, Inc. The businesses and organizations differ considerably in size. Some employ only a few workers; others employ more than 100.

The businesses and organizations located on these sites employ about 11,000 people, contributing an estimated \$643 million in annual employment income with about \$2.5 billion in estimated annual sales. Employee income earned helps inject money into local economies. It also helps generate state revenue through personal state income taxes. In addition to helping local communities by providing employment opportunities, these businesses help local economies through direct purchases of local supplies and services. On-site businesses that produce retail sales and services also generate tax revenues through the collection of sales taxes, which support state and local governments. In addition, most businesses operating on sites in Region 5 generate tax revenues through payment of state corporate income or related taxes. More detailed information is presented in Table 1.⁵

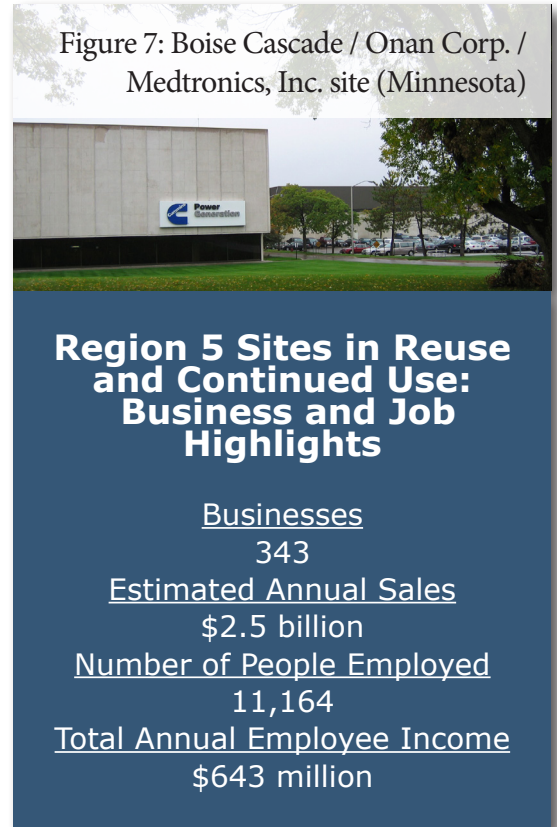


Table 1. Site and business information for Region 5 sites in reuse and continued use (2014)

	Sites	Sites with Businesses ^a	Businesses ^b	Total Annual Sales ^c	Total Employees	Total Annual Employee Income
In Reuse	61	37	229	\$708 million	5,560	\$291 million
In Continued Use	49	28	64	\$1.7 billion	4,847	\$315 million
In Continued Use and In Reuse	13	10	50	\$65 million	757	\$37 million
Total	123	75^d	343	\$2.5 billion	11,164	\$643 million

^a Also includes other organizations such as government agencies, nonprofit organizations and civic institutions.

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

^c For information on the collection of businesses, jobs and sales data, see the “Sources” section of this profile.

^d Business figures represent only a subset of the beneficial effects of sites in reuse or continued use in Region 5. There are 48 additional Superfund sites in reuse or continued use in Region 5 for which EPA does not have business data, including 13 NPL federal facilities. Not all sites in reuse involve an on-site business or other land use that would employ people on the site. Several sites without businesses have beneficial effects that are not easily quantified, such as properties providing ecological or recreational benefits (parks, wetlands, ecological habitat, open space, etc.).

⁴ Business figures represent only a subset of the beneficial effects of sites in reuse or continued use in Region 5. There are 48 additional Superfund sites in reuse or continued use in Region 5 for which EPA does not have business data, including 13 NPL federal facilities. Not all sites in reuse involve an on-site business or other land use that would employ people on the site. Several sites without businesses have beneficial effects that are not easily quantified, such as properties providing ecological or recreational benefits (parks, wetlands, ecological habitat, open space, etc.).

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; 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.

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

Region 5 Site Examples

- **In Reuse:** South Andover Site (Minnesota) – a former auto salvage operations and waste disposal area now supports a commercial retail center and townhome development.
- **In Continued Use:** American Chemical Service, Inc. (Indiana) – a specialty chemical manufacturer has remained active on site since before the site’s cleanup.
- **In Reuse and Continued Use:** Reilly Tar & Chemical Corp. (Indianapolis Plant) (Indiana) – a specialty chemical production plant continues to operate on the site; part of it now also supports a solar farm.

Property Values and Property Tax Revenues

Properties cleaned up under the Superfund program and put back into use may increase in value. This increased value can boost property tax revenues which help pay for local government operations, public schools, transit systems and other public services. For example, redevelopment of a large part of the MacGillis & Gibbs / Bell Lumber & Pole Company Superfund site into a commercial, industrial and retail center resulted in a before-and-after property tax increase from \$66,000 to over \$1 million.

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, there are many factors that affect property values, including external economic and neighborhood factors not related to a site’s contamination or Superfund site status. It is also difficult to isolate the effects of Superfund cleanup and reuse using current property values. However, these values give insight to the current value of Superfund properties and the potential loss in economic value if these properties were not cleaned up and available for reuse or continued use.



Figure 8: PMC Groundwater site (Michigan)

Region 5 Sites in Reuse: Property Value and Tax Highlights

Total Property Value

\$346 million

Total Annual Property Taxes

\$10 million

EPA collected property value tax data for 50 Superfund sites in reuse in Region 5.⁶ These sites span 830 property parcels and 3,720 acres and have a total property value of \$346 million. In total, 41 of the 50 sites have both land and improvement property value details; the properties at these sites have a total land value of \$99 million and a total improvement value of \$235 million. Forty-seven of the 50 sites have property tax details.⁷ Properties at these sites generate a combined \$10 million in property taxes annually.⁸

Table 2. Property value and tax information for sites in reuse and continued use in Region 5^a

Total Land Value (41 sites)^b	Total Improvement Value (41 sites)	Total Property Value (50 sites)	Total Annual Property Taxes (47 sites)
\$99 million	\$235 million	\$346 million	\$10 million

^a Results are based on an EPA SRI effort undertaken in 2015 to collect the on-site property value 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 profile.
^b Detailed (land and improvement) property value data as well as tax data were not available for every site.

⁶ There are 73 additional sites in reuse or continued use in Region 5 for which EPA does not have property value or tax data, including 13 NPL federal facilities.

⁷ Property values consist of land value and the value of any improvements (buildings and infrastructure) placed on a property. When sites are reused, some or all of these improvements may be new or already 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.

⁸ Property tax data were not available for three of the 50 Superfund sites with property value data.

Reuse in Action

Reilly Tar & Chemical Corp. (Indianapolis Plant) – Maywood Solar Farm

The 120-acre Reilly Tar & Chemical Corp. (Indianapolis Plant) Superfund site is located in Indianapolis, Indiana. A specialty chemicals production facility has operated on site since the early 1950s. Until 1972, a coal-tar refining and wood treatment facility that used creosote also operated at the site. Site operators used a trench, a landfill and several pits to dispose of wastes generated on site. A lime pond received boiler cooling water. Waste handling practices resulted in groundwater and soil contamination. EPA placed the site on the Superfund program's NPL in 1984. Cleanup involved extracting and containing groundwater. EPA's cleanup plan also included constructing a permeable cover over the wood treatment and storage area and removing or treating contaminated soil. Groundwater monitoring is ongoing. Chemical operations are ongoing at the site.



Figure 9: Reilly Tar & Chemical Corp. (Indianapolis Plant) site (Indiana)

In 2013, developer Hanwha Q CELLS began construction of a solar energy generation facility on the southern 43 acres of the site. The facility began operating in February 2014. The 10.8-megawatt facility includes over 36,000 ground-mounted, fixed-tilt solar panels. The Maywood Solar Farm is the first utility-scale solar farm located on a Superfund site in Region 5. Hanwha Q CELLS estimates that electricity generated from Maywood Solar Farm will help reduce carbon dioxide equivalent emissions by 13,235 metric tons per year – equal to the amount of annual carbon produced for energy use in more than 1,800 homes. The total cost of the project was about \$30 million. Of that amount, about \$4 to \$6 million was invested in the local economy in the form of labor, construction costs and materials. The project created around 75 to 100 jobs during construction and will continue to have a positive impact on the economy through ongoing contracts for equipment and labor with local firms over the next 15 to 35 years.

Plainwell Paper Mill – New Commercial and Public Service Office Space on Historic Paper Mill Property

The Plainwell Paper Mill is part of the Allied Paper Inc. / Portage Creek / Kalamazoo River Superfund site in southwestern Michigan. EPA placed the site on the NPL in 1990. Wastewater from paper mill operations, including operations at the 36-acre Plainwell Paper Mill property and the subsequent dismantling of dams on the Kalamazoo River, resulted in the contamination of area soil and river sediments. For many years, the City of Plainwell has been the champion for the cleanup and redevelopment of the mill property, recognizing the community-wide benefits and potential opportunities offered by the property's location, size and history. Historic mill buildings could be adaptively reused for office space next to downtown. By turning the mill property into a productive asset once again, the City of Plainwell hoped to create new interest in the city's downtown, support local jobs and economic development, and increase area property values and tax revenues.

Figure 10: Allied Paper Inc./Portage Creek/Kalamazoo River site (Michigan)



The city kicked off the project with a community-based reuse planning process sponsored by EPA in 2004. The city then worked closely with EPA and a potentially responsible party to address liability concerns and funding for future cleanup and investigations at the property. Redevelopment work began in 2010 when the City of Plainwell and Conestoga-Rovers & Associates entered into an agreement for the redevelopment of the 36-acre former paper mill. Conestoga-Rovers & Associates, an environmental, engineering and construction firm, relocated its U.S. construction headquarters

to the site in 2012.⁹ Today the firm generates an estimated \$4 million in annual employment income. The City of Plainwell completed a \$1.7 million renovation of the former dewatering building to house its Public Safety Department. City jobs on the property generate an additional \$2.5 million in annual employment income. The firm and city officials remain focused on bringing additional commercial and residential facilities to the property.

South Point Plant – The Point Industrial Park

The 610-acre South Point Plant site is located in the Village of South Point in southern Ohio. From the 1940s until the late 1990s, manufacturing facilities at the site produced explosives, industrial chemicals and fuels. EPA placed the site on the NPL in 1984. After assessing several economic development opportunities, the Lawrence Economic Development Corporation (LEDC) identified the site as the ideal candidate to host an industrial park that would be centrally located on the Ohio River near transportation networks and infrastructure.

EPA supported redevelopment efforts by awarding an SRI Pilot Program grant to the LEDC in 2001 that was used to evaluate the integration of remedy and reuse considerations. In 2004, EPA issued a Ready for Reuse determination indicating that the site’s remedy could support commercial and industrial uses. Today, the site hosts a premier industrial park and is home to 21 logistics and other industrial businesses that together employ nearly 1,000 workers and contribute an estimated \$50 million in annual employment income.

Future plans for The Point include additional tenants, expanded facilities and construction of an intermodal facility to serve as a road, rail and river transportation resource for the region. Parts of the site are also leased for agricultural use. On-site properties generated a combined \$158,000 in property taxes in annual property taxes in 2014. The combined assessed value of the parcels in 2014 (the most recent year valued) was nearly \$12 million.

PMC Groundwater – Waterfront Redevelopment



Figure 12: PMC Groundwater site (Michigan)

The PMC Groundwater site is located in a former industrial area on the shores of Lake Michigan’s Little Traverse Bay in Petoskey, Michigan. The Petoskey Manufacturing Company (PMC) operated a die-casting plant at the site and improperly disposed of wastes from the casting process. Improper disposal practices resulted in contamination of area groundwater, soil and the town’s municipal well. EPA placed the site on the NPL in 1983. EPA’s cleanup plan for contaminated soil included excavation and disposal as well as installation of a soil vapor extraction system. In 1995, EPA used Superfund funding to properly abandon the contaminated municipal well and construct a new municipal well outside of the contaminated area. In 2009, the City of Petoskey removed the abandoned well completely. EPA and the Michigan Department of Environmental Quality (MDEQ) approved deed restrictions that limit the future use of the groundwater and ensure the landowners take responsibility for appropriate future development of the property. EPA, MDEQ, the City of Petoskey and local developers collaborated on the cleanup and redevelopment of the site and surrounding waterfront area. This collaboration and persistence, combined with the city’s visionary planning

Figure 11: South Point Plant site (Ohio)

"The LEDC and the Village of South Point requested our assistance to address potential stigma or public safety concerns that prospective businesses might have regarding the site ... we have worked with them to develop several tools that have supported the site’s reuse while also ensuring that the community’s health is protected."

**- Tom Bloom,
EPA Region 5 Superfund
Redevelopment Coordinator**

⁹ Conestoga-Rovers & Associates merged with GHD in 2014 and officially changed its name to GHD in 2015. For more information see www.ghd.com/cra.

efforts and creative financing strategies, transformed the formerly contaminated industrial zone into a vibrant waterfront with mixed residential, commercial and recreational uses.

Today, the area includes condominiums, an improved road, parking and a lakefront bicycle path. The number of visitors who come to enjoy Petoskey’s lakefront scenery and recreational amenities has increased significantly in recent years. In addition, the site’s taxable value has multiplied 15 times since the PMC facility operated in the 1960s. The combined assessed value of the parcels in 2014 (the most recent year valued) was \$6.9 million. On-site properties contributed a combined \$277,000 in annual property taxes in 2014.

MacGillis & Gibbs Co. / Bell Lumber & Pole Co. – New Brighton Corporate Park III

The 68-acre MacGillis & Gibbs Co. / Bell Lumber & Pole Co. site consists of two adjoining properties in New Brighton, Minnesota. Wood-preserving facilities operated on both properties through most of the 20th century. EPA added the site to the NPL in 1984. By 2001, most of the cleanup was finished. Before and during the cleanup, the city focused on laying the groundwork necessary to redevelop the MacGillis & Gibbs property. This effort is part of the city’s plan to revitalize a historically significant road that was once a main route through Minneapolis and St. Paul. In 1997, the City of New Brighton, along with state and federal agencies, successfully negotiated a prospective purchaser agreement to resolve the city’s liability concerns about acquiring the property. The site’s cleanup and the agreement made possible New Brighton Corporate Park III, a 32-acre development that includes manufacturing, distribution and other businesses. The 10 on-site businesses employ over 335 people and contribute an estimated \$24 million in annual employment income. On-site properties contributed a combined \$1.4 million in annual property taxes in 2014. The combined assessed value of the parcels in 2014 (the most recent year valued) was nearly \$35 million.¹⁰

Figure 13: MacGillis & Gibbs. Co./Bell Lumber & Pole Co. site (Minnesota)



"It was clear that the city had put a lot of thought into their plans, and had looked not only at redevelopment, but at how cleanup and redevelopment could work together at the property. We [EPA] see it as part of our mission to enable communities like New Brighton to be able to safely return contaminated properties to beneficial use."

**- Darryl Owens,
EPA Project Manager**

¹⁰ Property value and tax figures also include data for the Bell Lumber & Pole Co. portion of the site.

State Reuse Profile: Illinois

EPA partners with the Illinois Environmental Protection Agency to oversee the investigation and cleanup of Superfund sites in Illinois. Illinois has 24 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 48 businesses and organizations operating on 13 sites in reuse and continued use in Illinois. The businesses and organizations employ over 500 people and contribute an estimated \$32 million in annual employment income.

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

	Sites ^a	Sites with Businesses	Businesses	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	12	6	12	\$4 million	48	\$2 million
In Continued Use	7	3	4	\$20 million	171	\$16 million
In Continued Use and In Reuse	5	4	32	\$57 million	318	\$14 million
Total	24	13	48	\$81 million	537	\$32 million

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

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

Property Values and Property Tax Revenues

EPA collected property value data for eight Superfund sites in reuse and continued use in Illinois. These sites span 25 property parcels and 516 acres and have a total property value of \$226,000. Six of the eight sites have property value details. Together, the properties at these sites have a total land value of \$104,000 and a total improvement value of \$5,000. All eight sites have property tax details. Properties at these sites generate a combined \$13,000 in property taxes.

Table 4. Property value and tax information for sites in reuse and continued use in Illinois^a

Total Land Value (6 sites)	Total Improvement Value (6 sites)	Total Property Value (8 sites)	Total Annual Property Taxes (8 sites)
\$104,000	\$5,000	\$226,000	\$13,000

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

Did You Know?

The Kerr-McGee (Reed-Kepler Park) site in West Chicago, Illinois includes 11 acres of a public park. A complex of baseball fields, a skateboard park, a large maintained greenspace, and a family aquatic center are located within the site.

Figure 14: Kerr-McGee (Reed-Kepler Park) site (Illinois)



State Reuse Profile: Indiana

EPA partners with the Indiana Department of Environmental Management to oversee the investigation and cleanup of Superfund sites in Indiana. Indiana has 13 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 20 businesses and organizations operating on eight sites in reuse and continued use in Indiana. The businesses and organizations employ about 650 people and contribute an estimated \$28 million in annual employment income.

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

	Sites	Sites with Businesses	Businesses	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	7	4	13	\$3 million	292	\$9 million ^a
In Continued Use	3	2	3	\$20 million	99	\$5 million
In Continued Use and In Reuse	3	2	4	\$160,000	263	\$14 million ^a
Total	13	8	20	\$23 million	654	\$28 million^a

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

^a While sales values typically exceed estimated totals of annual income, sales can sometimes be lower than estimated income. This difference could be attributed to a number of business conditions and/or data reporting. In addition, annual sales figures are not available (or applicable) for every organization that makes jobs data available.

Property Values and Property Tax Revenues

EPA collected property value data for seven Superfund sites in reuse and continued use in Indiana. These sites span 107 property parcels and 297 acres and have a total property value of \$25 million. All seven sites have property value details. Together, the site properties have a total land value of \$7 million and a total improvement value of \$18 million. Six of the seven sites have property tax details. Properties at these sites generate a combined \$456,000 in property taxes.

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

Total Land Value (7 sites)	Total Improvement Value (7 sites)	Total Property Value (7 sites)	Total Annual Property Taxes (6 sites)
\$7 million	\$18 million	\$25 million	\$456,000

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

Did You Know?

A Lowe's Home Center opened at the Prestolite Battery Division site in Vincennes, Indiana, in 2001. The store provides an estimated \$3.8 million in annual employment income.



Figure 15: Prestolite Battery Division site (Indiana)

State Reuse Profile: Michigan

EPA partners with Michigan Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Michigan. Michigan has 26 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 39 businesses and organizations operating on 19 sites in reuse and continued use in Michigan. The businesses and organizations employ about 730 people and contribute an estimated \$56 million in annual employment income.

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

	Sites ^a	Sites with Businesses	Businesses	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	13	11	27	\$12 million	273	\$14 million ^b
In Continued Use	11	7	9	\$43 million	452	\$42 million
In Continued Use and In Reuse	2	1	3	\$371,000	8	\$315,000
Total	26	19	39	\$55 million	733	\$56 million^b

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

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

^b While sales values typically exceed estimated totals of annual income, sales can sometimes be lower than estimated income. This difference could be attributed to a number of business conditions and/or data reporting. In addition, annual sales figures are not available (or applicable) for every organization that makes jobs data available.

Property Values and Property Tax Revenues

EPA collected property value data for six Superfund sites in reuse in Michigan. These sites span 94 property parcels and 202 acres and have a total property value of \$10.7 million. None of the sites has property value details. Four of the six sites have property tax details. Properties at these sites generate a combined \$304,000 in property taxes.

Table 8. Property value and tax information for sites in reuse and continued use in Michigan^a

Total Land Value (0 sites)	Total Improvement Value (0 sites)	Total Property Value (6 sites)	Total Annual Property Taxes (4 sites)
\$0	\$0	\$10.7 million	\$304,000

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

Did You Know?

BorgWarner, Inc. operates an automotive parts manufacturing plant on the Kysor Industrial Corp. site in Cadillac, Michigan. The facility generates an estimated \$1.8 million in annual employment income.

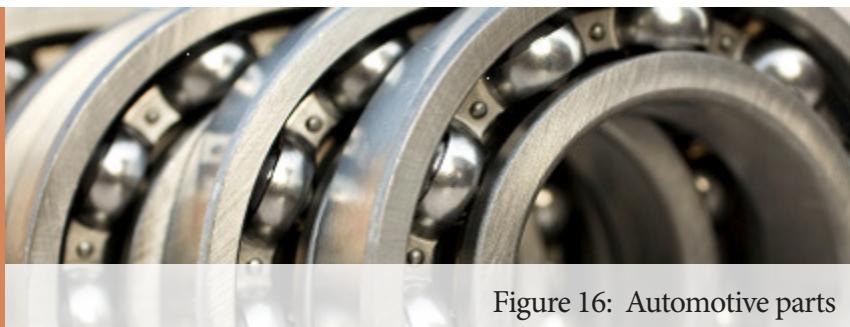


Figure 16: Automotive parts

State Reuse Profile: Minnesota

EPA partners with the Minnesota Pollution Control Agency to oversee the investigation and cleanup of Superfund sites in Minnesota. Minnesota has 28 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 167 businesses and organizations operating on 19 sites in reuse and continued use in Minnesota. The businesses and organizations employ about 5,000 people and contribute an estimated \$313 million in annual employment income.

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

	Sites ^a	Sites with Businesses	Businesses	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	13	9	129	\$208 million	3,402	\$183 million
In Continued Use	12	7	27	\$1.2 billion	1,792	\$122 million
In Continued Use and In Reuse	3	3	11	\$7.5 million	168	\$8 million ^b
Total	28	19	167	\$1.4 billion	5,362	\$313 million

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

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

^b While sales values typically exceed estimated totals of annual income, sales can sometimes be lower than estimated income. This difference could be attributed to a number of business conditions and/or data reporting. In addition, annual sales figures are not available (or applicable) for every organization that makes jobs data available.

Property Values and Property Tax Revenues

EPA collected property value data for 19 Superfund sites in reuse and continued use in Minnesota. These sites span 366 property parcels and 1,200 acres and have a total property value of \$256 million. Eighteen of the 19 sites have property value details. Together, properties at these sites have a total land value of \$80 million and a total improvement value of \$175 million. All 19 sites have property tax details. Properties at these sites generate a combined \$9 million in property taxes.

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

Total Land Value (18 sites)	Total Improvement Value (18 sites)	Total Property Value (19 sites)	Total Annual Property Taxes (19 sites)
\$80 million	\$175 million	\$256 million	\$9 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?

Redevelopment of part of the Naval Industrial Reserve Ordnance Plant site, located in Fridley, Minnesota, is underway. The Northern Stacks Industrial Park project includes several large-scale buildings to be built over several phases. Developers completed the first building in 2015. Once fully developed, the project could support 3,000 jobs and generate \$3 million in property taxes each year.



Figure 17: Naval Industrial Reserve Ordnance Plant site (Minnesota)

State Reuse Profile: Ohio

EPA partners with the Ohio Environmental Protection Agency to oversee the investigation and cleanup of Superfund sites in Ohio. Ohio has 18 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 58 businesses and organizations operating on nine sites in reuse and continued use in Ohio. The businesses and organizations employ about 3,400 people and contribute an estimated \$195 million in annual employment income.

Table 11. Detailed site and business information for Superfund sites in reuse and continued use in Ohio (2014)

	Sites ^a	Sites with Businesses	Businesses	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	11	5	45	\$61 million	1,543	\$84 million ^b
In Continued Use	7	4	13	\$262 million	1,902	\$111 million
In Continued Use and In Reuse	0	0	0	\$0	0	\$0
Total	18	9	58	\$323 million	3,445	\$195 million

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

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

^b While sales values typically exceed estimated totals of annual income, sales can sometimes be lower than estimated income. This difference could be attributed to a number of business conditions and/or data reporting. In addition, annual sales figures are not available (or applicable) for every organization that makes jobs data available.

Property Values and Property Tax Revenues

EPA collected property value data for seven Superfund sites in reuse and continued use in Ohio. These sites span 232 property parcels and 1,349 acres and have a total property value of \$52 million. All seven sites have property value and tax details. Together, the site properties have a total land value of \$12 million and a total improvement value of \$40 million. The site properties generate a combined \$492,000 in property taxes.

Table 12. Property value and tax information for sites in reuse and continued use in Ohio^a

Total Land Value (7 sites)	Total Improvement Value (7 sites)	Total Property Value (7 sites)	Total Annual Property Taxes (7 sites)
\$12 million	\$40 million	\$52 million	\$492,000

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

Did You Know?

Engines Inc. of Ohio, a machining and fabrication business, operates at the South Point Plant site at The Point industrial park in southern Ohio. The firm started in one building at the site. It has since expanded into three buildings. The business contributes an estimated \$6.5 million in annual employment income.

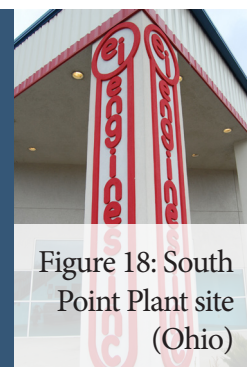


Figure 18: South Point Plant site (Ohio)

State Reuse Profile: Wisconsin

EPA partners with the Wisconsin Department of Natural Resources to oversee the investigation and cleanup of Superfund sites in Wisconsin. Wisconsin has 14 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 11 businesses and organizations operating on seven sites in reuse and continued use in Wisconsin. The businesses and organizations employ about 430 people and contribute an estimated \$19 million in annual employment income.

Table 13. Detailed site and business information for Superfund sites in reuse and continued use in Wisconsin (2014)

	Sites	Sites with Businesses	Businesses	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	5	2	3	\$420 million	2	\$24,000
In Continued Use	9	5	8	\$135 million	431	\$19 million
In Continued Use and In Reuse	0	0	0	\$0	0	\$0
Total	14	7	11	\$555 million	433	\$19 million

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

Property Values and Property Tax Revenues

EPA collected property value data for three Superfund sites in reuse and continued use in Wisconsin. These sites span six property parcels and 156 acres and have a total property value of \$2 million. Together, the site properties have a total land value of \$524,000 and a total improvement value of \$1.5 million. The properties for the three sites generate a combined \$37,000 in property taxes.

Table 14. Property value and tax information for sites in reuse and continued use in Wisconsin^a

Total Land Value (3 sites)	Total Improvement Value (3 sites)	Total Property Value (3 sites)	Total Annual Property Taxes (3 sites)
\$524,000	\$1.5 million	\$2 million	\$37,000

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

Did You Know?

Northern Engraving Corporation makes metal nameplates, dials and decorative trim for the automotive industry at its facility on the Northern Engraving Co. Superfund site in Sparta, Wisconsin. The facility contributes an estimated \$13.4 million in annual employment income.



Figure 19: Metal engraving

Reuse on the Horizon in Region 5

Transforming a Former Copper Smelter into a Regional Tourist Destination and National Historic Park

The Quincy Smelter site is part of the Quincy Mining Company National Historic Landmark District within the boundaries of Keweenaw National Historical Park in Michigan's Upper Peninsula. The site has the potential to be a unique and significant regional destination – providing jobs and recreation opportunities – and serving as a catalyst for heritage tourism in Michigan's Upper Peninsula. The site includes the copper smelting complex of the Quincy Mining Company – the most complete example of an early 20th century copper smelter in the world. When Keweenaw National Historical Park was established in 1992, Congress recognized the Quincy Smelting Works as a key part of the Michigan Keweenaw Peninsula copper mining story.

The site is also part of the Torch Lake Superfund site due to stamp sands deposited on site during copper mining industry operations. EPA Region 5 completed the cleanup in September 2011 and sponsored a multi-year reuse planning process to facilitate the site's restoration and reuse. Since 2008, the reuse planning process built a foundation of interagency collaboration, included a community open house and working session, defined a community-based vision for the site, and led to the formation of the Quincy Smelter Steering Committee. This process has resulted in broad stakeholder and interagency momentum around the vision of Quincy Smelter as a cultural heritage destination and the gateway to Isle Royale National Park.

In October 2013, EPA removed Quincy Smelter from the NPL. The National Park Service is currently planning to purchase the property from the local township. Through cooperative planning, fundraising, education and support, the community plans to return the facility to beneficial use in a way that enhances local quality of life and communicates the story of its copper mining heritage for future generations.

Figure 20: Torch Lake site (Michigan)

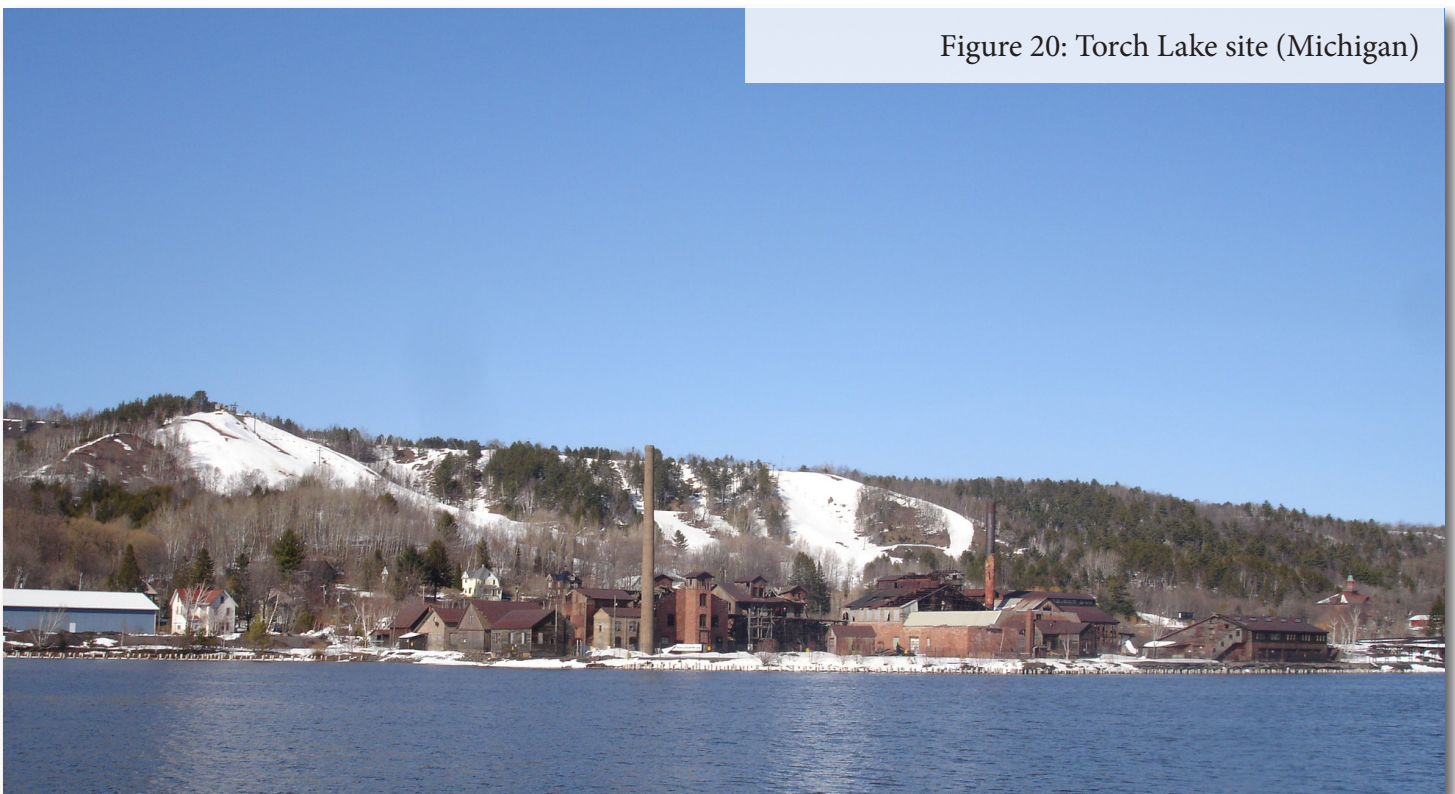


Figure 21: South Andover site (Minnesota)



Conclusion

EPA works closely at Superfund sites across the Great Lakes Region to make sure that sites can be used safely 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 110 NPL sites and 13 non-NPL Superfund sites in Region 5 that have either new uses in place or uses that have remained in place since before cleanup. Many other Superfund sites in Region 5 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.

The reuse of Superfund sites takes time and is often a learning process for project partners. Ongoing coordination among EPA, state agencies, local governments, potentially responsible parties, site owners, developers, and nearby residents and business owners is essential. EPA tools, including reuse assessments or plans, comfort letters or partial deletions of sites from the NPL, often serve as the foundation for moving forward. At some sites, parties may need to take additional actions to ensure reuses are compatible with site remedies.

Results from across Region 5 indicate that these efforts are well worth it. Across the Great Lakes Region, Superfund sites are now home to large-scale commercial and industrial developments, mid-sized developments creating innovative products, and small businesses providing services to surrounding communities. EPA is committed to working with all stakeholders, using both “tried-and-tested” tools as well as new and innovative approaches, to support the restoration and renewal of these sites as long-term assets for communities in Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin.

EPA Resources for Superfund Site Reuse

EPA Region 5 Superfund Redevelopment Website: tools, resources and more information about Superfund site reuse in Region 5. www.epa.gov/region5/cleanup

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

EPA Region 5 Superfund Redevelopment Coordinator
Tom Bloom | 312-886-1967 | bloom.thomas@epa.gov

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

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

Sources

Business, Job and Sales Information

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

EPA obtains wage and income information from the U.S. Bureau of Labor Statistics (BLS). EPA uses the BLS Quarterly Census of Employment and Wages database to obtain average weekly wage data for the identified businesses. Average weekly wage data are identified by matching the North American Industry Classification System (NAICS) codes corresponding with each type of business with weekly wage data for corresponding businesses. If weekly wage data are not available at the county level, EPA uses wage data by state or national level, respectively. In cases where wage data are not available for the six-digit NAICS code, EPA uses higher-level (less-detailed) NAICS codes to obtain the wage data. To determine the annual wages (mean annual) earned from jobs generated by each of the identified businesses, EPA multiplies the average weekly wage figure by the number of weeks in a year (52) and by the number of jobs (employees) for each business.

Business and employment data used for this profile were collected in 2014 and 2015. Annual employment income is based on job data estimated in 2014 using BLS average weekly wage data for those jobs from 2013 (the latest available wage data at the time of this profile). All figures presented have been rounded for the convenience of the reader. Federal facility sites are not included in calculations of total businesses, jobs, income or annual sales.

Property Value and Tax Information

EPA collected on-site property values and property taxes included in this profile for a subset of Superfund sites by comparing available site boundary information with available parcel boundary information and gathering information for selected parcels from county assessor data sets. The property value and tax amounts reflect the latest property value year and tax data year available in county assessor data sets, which varied from 2013 to 2015. All figures presented have been rounded for the convenience of the reader.

Reuse in Action

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

[SRI Redevelopment Beneficial Effects Case Studies](#)

PMC Groundwater. 2014. [Reuse and the Benefit to Community](#).

South Point Plant. 2014. [Reuse and the Benefit to Community](#).

[SRI In-Depth Case Studies](#)

Allied Paper/Portage Creek/Kalamazoo River Superfund Site. 2014. [Historic Preservation and Mixed-Use Superfund Redevelopment, The Plainwell Paper Mill in Plainwell, Michigan](#).

MacGillis & Gibbs / Bell Lumber & Pole Company. 2010. Cleanup and Mixed-Use Revitalization in the Twin Cities: The MacGillis & Gibbs Superfund Site Property and New Brighton, Minnesota.

Reilly Tar & Chemical Corp. (Indianapolis Plant) Superfund Site. 2014. [Utility-Scale Solar Energy Development: Reilly Tar & Chemical Corp. \(Indianapolis Plant\) Superfund site](#).

South Point Plant. 2010. [Cleanup and Industrial Revitalization in the Tri-State Region: The South Point Plant Superfund Site and Lawrence County, Ohio](#).

Other Resources

[Naval Industrial Reserve Ordnance Plant](#)

Janet Moore. "[Work begins on \\$100 million-plus redevelopment project in Fridley](#)." Star Tribune. May 29, 2014.



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