EPA

September 2017

PUTTING SITES TO WORK

How Superfund Redevelopment in the Great Lakes Region Is Making a Difference in Communities

WHAT'S INSIDE?

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

Cover page photos, clockwise from top left: South Point Plant site (Ohio), PMC Groundwater site (Michigan), Waite Park Wells site (Minnesota), Joslyn Manufacturing & Supply Co. site (Minnesota)

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 across the country. Through EPA's Superfund Redevelopment Initiative, the Agency contributes to these communities' economic vitality by supporting the return of sites to productive use. These regional profiles highlight community-led efforts as EPA launches a new era of partnerships and works toward a sustainable future.

Introduction

Since the 1950s, the states in EPA Region 5 – the Great Lakes region of Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin – have faced major changes in the manufacturing sector. 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 the region. 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 while at the same time 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 often restores value to site properties and surrounding communities that have been negatively affected by contamination. Site reuse can revitalize a local economy with jobs, new businesses, tax revenues and local spending.

Through programs like the Superfund Redevelopment Initiative, EPA Region 5 helps communities reclaim cleaned-up Superfund sites. Factoring in future use of Superfund sites into the cleanup process promotes their safe redevelopment. In addition, EPA Region 5 works closely with state and local officials to remove barriers that have kept many Superfund sites underused. EPA Region 5 works to ensure that businesses on properties being cleaned up under Superfund can continue operating in a manner that protects both human health and the environment while site investigations and cleanup work continue. This continuity enables these businesses to remain as a source of jobs for communities.

Region 5 Sites in Reuse and Continued Use: Business and Job Highlights

Businesses
400
Estimated Annual Sales
$3.8 billion
Number of People Employed
10,237
Total Annual Employee Income
$626 million

Figure 2. Dalco Enterprises Inc. at the MacGillis & Gibbs Co./Bell Lumber & Pole Co. site (Minnesota)

Superfund sites across Region 5 are home to top-tier industrial and commercial parks, retail centers, 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. On-site businesses and organizations at current and former Region 5 Superfund sites provide an estimated 10,237 jobs and contribute an estimated $626 million in annual employment income. Cleaned-up sites in use in Region 5 generate $11 million in annual property tax revenues for local governments.[1]

This 2017 profile looks at how reuse activities at Superfund sites make a difference in communities across Region 5. 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

[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 55 Superfund sites in reuse or continued use in Region 5 for which EPA does not have business data, including 14 federal facilities on the Superfund National Priorities List (NPL). Not all sites in reuse involve an on-site business or other land use that would employ people. Several sites without businesses have beneficial effects that are not easily quantified, such as properties providing ecological or recreational benefits (such as parks, wetlands, ecological habitat and open space). There are 73 sites in reuse or continued use in Region 5 for which EPA does not have property value or tax data, including 14 NPL federal facilities.

and sites that have remained in use throughout the cleanup process. EPA updates these profiles every two years. The beneficial effects may increase or decrease over time due to changes in:

- The number of sites in reuse or continued use.
- The number of on-site businesses.
- Data availability.
- Changes in business and property value data.

Figures presented represent only a subset of all Superfund sites in reuse or continued use in Region 5.

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 human health and the environment through the Superfund program, Region 5 partners with stakeholders to encourage reuse opportunities at Superfund sites. Region 5 helps communities and cleanup managers consider reuse during cleanup planning and evaluate remedies already in place to ensure appropriate reuse at cleaned-up sites. In addition, EPA participates in partnerships with communities and encourages opportunities to support Superfund redevelopment projects that emphasize environmental and economic sustainability.

Specific reuse support efforts in EPA Region 5 include:

- Identifying and evaluating local land use priorities to align with site cleanup plans through the reuse planning process.
- Facilitating cleanup and reuse discussions to help resolve key issues between parties interested in site redevelopment.
- Supporting targeted projects intended to help Region 5 communities and EPA find the right tools to move site reuse forward.
- Making efforts to help address communities' and developers' liability, safety and reuse concerns related to Superfund site reuse through development of educational materials, comfort letters, developer agreements and environmental status reports – known as Ready for Reuse Determinations – that provide information about the appropriate use of 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 and reuse case studies to share opportunities and lessons associated with Superfund redevelopment.

All of these efforts have helped build expertise across Region 5, making it easier to both consider future use of Superfund sites prior to cleanup and identify opportunities for removing reuse barriers. These efforts also help other communities, state agencies, potentially responsible parties and developers better understand potential future uses for Superfund sites. This helps stakeholders engage early in the cleanup process, ensuring that Superfund sites are restored as productive assets for communities. Most importantly, these efforts lead to significant returns for communities, including jobs, annual income and tax revenues.

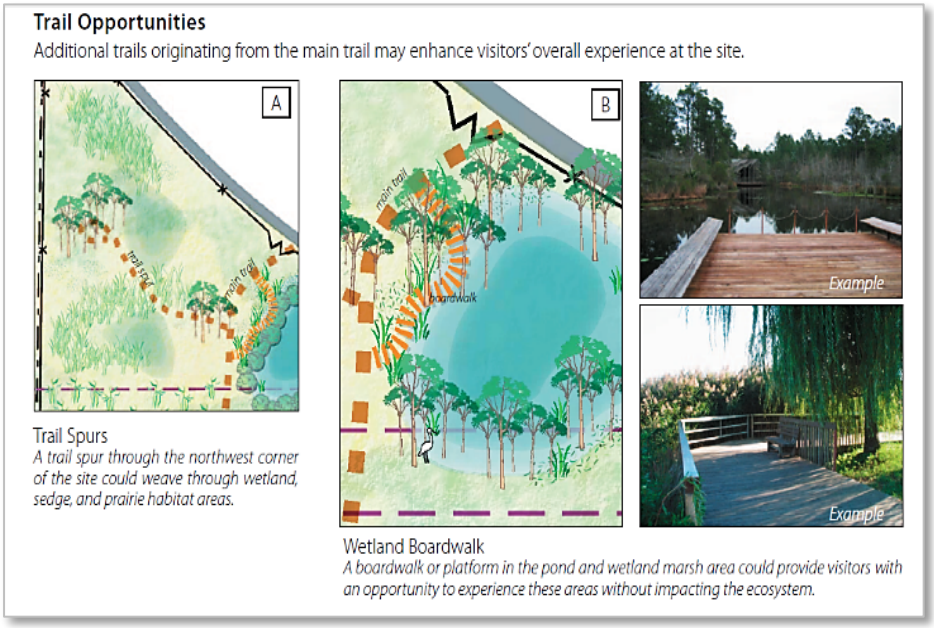

Figure 3. Excerpt from the Calumet Container site reuse framework (Indiana)

Superfund Reuse: The Big Picture

EPA can take and oversee immediate action at contaminated sites through short-term cleanup actions, also called removal actions. [2] Then EPA refers sites warranting long-term cleanup to its remedial program or to state programs. EPA's National Priorities List (NPL) is a list of sites the Agency is targeting for further investigation and possible remediation through the Superfund program. Once EPA places a site on the NPL, the Agency studies the contamination, identifies technologies that could address the material, and evaluates alternative cleanup approaches. EPA then proposes a cleanup plan, and after collecting public input, it issues a final cleanup plan and cleans up the site or oversees cleanup activities. EPA has placed over 300 sites in Region 5 on the NPL, and oversees investigation and cleanup at 34 Superfund Alternative Approach sites in the region.

Whenever possible, EPA seeks to integrate reuse priorities into site cleanup plans. In Region 5, 114 NPL sites and 14 non-NPL Superfund sites are in use. These sites have either new uses in place or uses that remain in place from before cleanup. Many of these sites have been redeveloped for commercial, industrial and residential purposes. Others have been redeveloped for recreational, ecological or agricultural purposes. Businesses and other organizations also use all or parts of other sites for historical memorials and vehicle parking.

The following sections take a closer look at the beneficial effects of businesses operating on current and former Superfund sites.

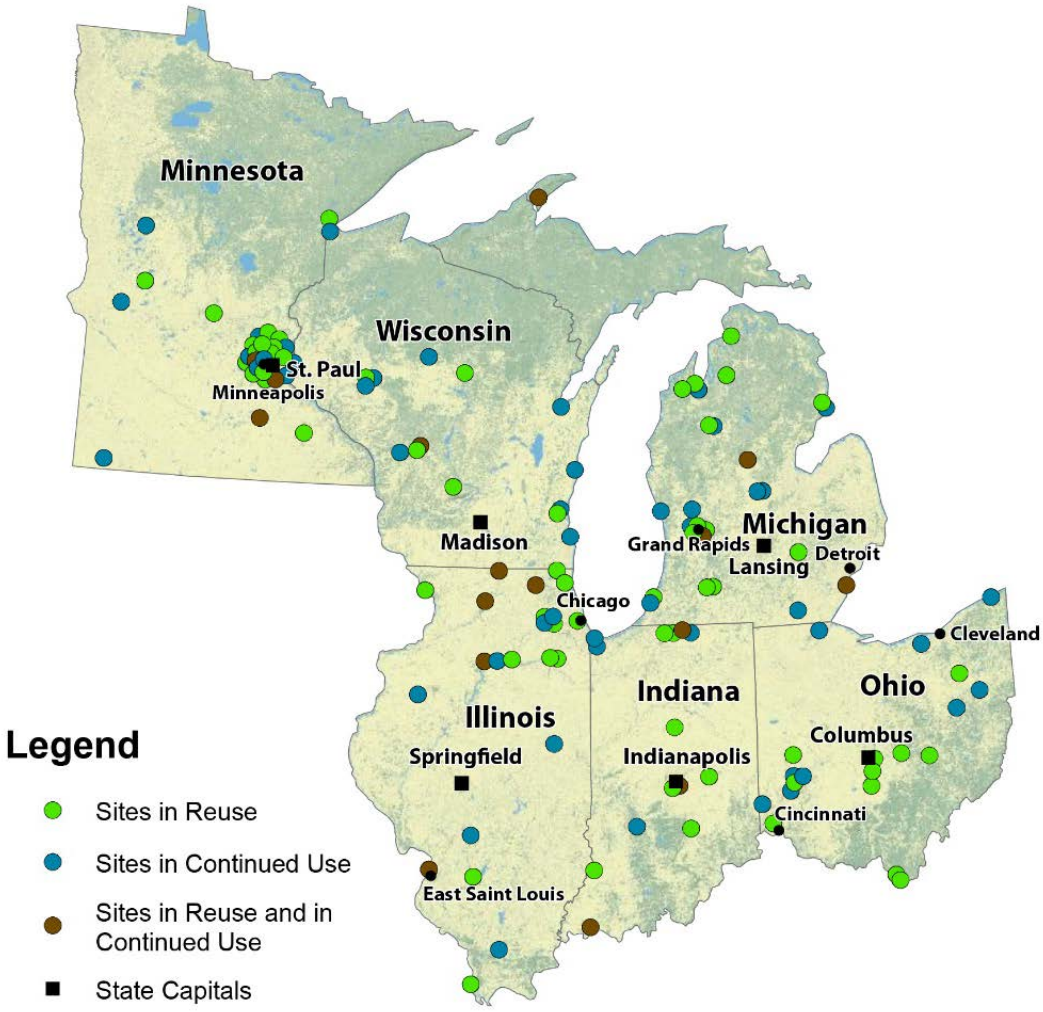

Figure 4. Sites in reuse and continued use in Region 5

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

Beneficial Effects of Superfund Site Reuse in Region 5

Businesses and Jobs

EPA has collected economic data for 400 businesses, government agencies and civic organizations operating on 70 NPL sites and three non-NPL sites in reuse and continued use in Region 5.[3] (See the State Reuse Profiles on pages 14-19 for each state's reuse details.) Businesses and organizations located on these sites fall within several 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 standalone 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.

Figure 5. Energy Park Corporate Center at the Koppers Coke site (Minnesota)

Sites in Reuse and Continued Use: A Closer Look

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

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

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

Region 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.

[3] See footnote 1, page 3.

The businesses and organizations at these sites earn nearly $4 billion in estimated annual sales and employ over 10,200 people earning an estimated $626 million in annual employment income. This income injects money into local economies and generates revenue through personal state income taxes. These businesses also help local economies through direct purchases of local supplies and services. On-site businesses that produce retail sales and services also generate tax revenues through the collection of sales taxes, which support state and local governments. More detailed information is presented in Table 1.[4]

Table 1. Site and business information for Region 5 sites in reuse and continued use (2016)

	Sites[a]	Sites with Businesses[b]	Businesses[c]	Total Annual Sales[d]	Total Employees	Total Annual Employee Income
In Reuse	63	33	257	$1.4 billion	5,294	$302 million
In Continued Use	49	28	67	$2.2 billion	3,936	$269 million
In Reuse and in Continued Use	16	12	76	$189 million	1,007	$55 million
Total	**128**	**73[e]**	**400**	**$3.8 billion**	**10,237**	**$626 million**

[a] Fourteen sites are federal facilities. Federal facility sites are excluded from all other detailed site and business data presented above.
[b] Also includes other organizations such as government agencies, nonprofit organizations and civic institutions.
[c] Business information is not available for all businesses on all Superfund sites in reuse or continued use.
[d] For information on the collection of business, jobs and sales data, see the "Sources" section of this profile.
[e] See footnote 1, page 3.

Figure 6. Residences at the PMC Groundwater site (Michigan)

[4] For additional information on the collection of business, jobs and sales data, see the "Sources" section of this profile.

Property Values and Property Tax Revenues

Properties cleaned up under the Superfund program and returned to use have the potential for significant increases 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 in Minnesota 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. This is due to a few factors, including insufficient data on historical property values and the frequency and timing of property value assessments by local agencies. Likewise, many factors affect property values, including external economic and neighborhood factors not related to a site's contamination or Superfund status. It is also difficult to isolate the effects of Superfund cleanup and reuse using current property values. However, these values do provide insight into the current value of Superfund properties and the potential loss in economic value if the properties were not cleaned up and made available for reuse or continued use.

Region 5 Sites in Reuse and Continued Use: Property Value and Tax Highlights

Total Property Value
$406 million

Total Annual Property Taxes
$11 million

Figure 7. South Andover Superfund site (Minnesota)

EPA has collected property value and tax data for 55 Superfund sites in reuse and continued use in Region 5.[5] These sites span 846 property parcels and 3,739 acres. They have a total property value of $406 million. The average total property value per acre is $107,000.
Land value information is available for 45 sites, and improvement property value information is available for 44 sites. These properties have a total land value of $120 million and a total improvement value of $275 million.

Property tax information is available for 49 sites.[6] The properties generate a combined $11 million in local property taxes annually.

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

Total Land Value (45 sites)[b]	Total Improvement Value[c] (44 sites)	Total Property Value (55 sites)	Total Property Value per Acre (52 sites)[d]	Total Annual Property Taxes (49 sites)
$120 million	$275 million	$406 million	$107,000	$11 million

[a] Results are based on an EPA Superfund Redevelopment Initiative effort in 2017 to collect on-site property values and property taxes for a subset of Superfund sites. The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2015 to 2017. 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.

[c] Land and/or improvement value for six of the sites is listed as $0.

[d] Based on total property value amount of $399 million divided by total acreage of 3,739. Three sites lack detailed acreage data; these three sites were excluded from the total property value per acre calculation.

[5] 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 14 NPL federal facilities.

[6] 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 be in place. In some cases, the breakdown showing both the land value and improvement value is not always available; instead, only the total property value may be available.

Reuse in Action

Continental Steel Corp. – Commercial, Recreational, Stormwater Infrastructure Development and Solar Energy Development

From 1914 to 1986, the 183-acre Continental Steel Superfund site was an active steel manufacturing facility that made metal products. The plant's steel manufacturing operations included handling, storage and disposal of hazardous materials.

In 1986, Continental Steel went bankrupt. The company left the property in Kokomo, Indiana, contaminated with chemicals including solvents and lead. In 1989, EPA added the site to the NPL.

As cleanup began, EPA, the state, the community and local developers started working to return portions of the site to productive use. Shortly after cleanup began, a local florist began using an on-site warehouse. A construction company purchased a portion of the property to store construction equipment. EPA also worked with the community to evaluate reuse opportunities.

Figure 8. The Wildcat Creek Soccer Complex at Continental Steel Corp. site (Indiana)

Part of the cleanup allowed Kokomo to move forward with a stormwater project that uses the on-site quarry as a stormwater retention/detention basin. The city worked with Howard County to obtain and relocate fill material from an area that had poor drainage, thereby saving the city and county thousands of dollars.

A groundwater extraction system began operating in 2011. Three on-site wind turbines produce enough energy to offset at least half of the energy needed for continued groundwater treatment.

A community-based redevelopment plan, announced in 2006, called for retail space, as well as recreational areas with sports fields and facilities. The first phase of a 60-acre sports facility was completed in 2015.

In December 2016, a new $10 million, seven-megawatt solar facility began operating at the site. The Kokomo Solar Park revitalizes a section of the site that has been vacant for decades.

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.

Figure 9. Dentist's office at MacGillis & Gibbs Co./Bell Lumber & Pole Co. site (Minnesota)

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

"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

development that includes manufacturing, distribution and other businesses. The 12 on-site businesses employ over 500 people and contribute an estimated $41 million in annual employment income. On-site properties contributed a combined $1.1 million in annual property taxes in 2016. The combined assessed value of the parcels in 2016 (the most recent year valued) was over $34 million.[7]

PMC Groundwater – Waterfront Redevelopment

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.

Figure 10. Bike path and residences at the PMC Groundwater site (Michigan)

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 discontinue use of 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 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 2016 (the most recent year valued) was over $7 million. On-site properties contributed a combined $300,000 in annual property taxes in 2016.

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.

> *"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

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

Figure 11. The Orica Ground Support Inc. Building at the South Point Plant site (Ohio)

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

host an industrial park that would be centrally located on the Ohio River near transportation networks and infrastructure. EPA supported redevelopment efforts by awarding a Superfund Redevelopment Initiative Pilot Program grant to the LEDC in 2001 that LEDC 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 800 workers and contribute an estimated $43 million in annual employment income. Examples include a FedEx distribution facility; Jennmar McSweeney, LLC, a mining machinery and equipment manufacturing company; Engines Inc. of Ohio, a machining and fabrication company; and Orica Ground Support Inc. which specializes in plastics material and resin manufacturing.

On-site properties generated a combined $263,000 in property taxes in 2016. The combined assessed value of the parcels in 2016 was over $19 million.

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.

Figure 12. Plainwell Paper Mill property at Allied Paper Inc. Portage Creek/Kalamazoo River site (Michigan)

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 hoped to create new interest in the city's downtown, support local jobs and economic development, and increase property values and tax revenues.

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. Redevelopment work began in 2010 when the city of Plainwell and Conestoga-Rovers & Associates entered into an agreement for the redevelopment of the former paper mill.

Conestoga-Rovers & Associates (now GHD Services Inc.), an environmental, engineering and construction firm, relocated its U.S. construction headquarters to the site in 2012. Today the employees operating at the headquarters location together earn an estimated $5 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 provide an additional $2.4 million in annual employment income. The firm and city officials remain focused on bringing additional commercial and residential facilities to the property.

Reilly Tar & Chemical Corp. (Indianapolis Plant) – Chemical Manufacturing and Solar Energy Production

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. A lime pond received boiler cooling water. Waste handling practices resulted in groundwater and soil contamination.

EPA placed the site on the 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.

Vertellus Specialties, Inc., an agriculture and nutrition chemical manufacturer continues manufacturing operations at the site. Vertellus' location on site is their international headquarters and largest plant with annual sales of almost $60 million. Employees operating at this location together earn an estimated $8 million in annual employee income.

Figure 13. The Maywood Solar Farm at the Reilly Tar & Chemical Corp. (Indianapolis Plant) site (Indiana)

The site is also home to the Maywood Solar Farm. Developer Hanwha Q CELLS began operating the solar farm on the southern 43 acres of the site in February 2014. The 10.8-megawatt facility includes over 36,000 solar panels and is the first utility-scale solar farm located on a Superfund site in Region 5. 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.

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 23 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 57 businesses and organizations operating on 10 sites in reuse and continued use in Illinois. The businesses and organizations employ 690 people and contribute an estimated $43 million in annual employment income.

Table 3. Detailed site and business information for sites in reuse and continued use in Illinois (2016)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	11	4	20	$20 million	175	$9 million
In Continued Use	7	3	4	$21 million	171	$16 million
In Reuse and in Continued Use	5	3	33	$61 million	344	$18 million
Total	**23**	**10**	**57**	**$102 million**	**690**	**$43 million**

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

Property Values and Property Tax Revenues

EPA has collected property value data for seven Superfund sites in reuse and continued use in Illinois. These sites span 24 property parcels and 483 acres. They have a total property value of $165,000. Detailed property value information is available for five sites. Together, the site properties have a total land value of $120,000 and a total improvement value of $32,000. Property tax information is available for five sites. Properties at these sites generate a combined $14,000 in property taxes.

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

Total Land Value (5 sites)	Total Improvement Value (5 sites)	Total Property Value (7 sites)	Total Annual Property Taxes (5 sites)
$120,000	$32,000	$165,000	$14,000

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2015 to 2016.

Did You Know?

There are a total of 14 businesses operating on the Kerr-McGee (Reed-Keppler Park) site in West Chicago, Illinois, including three manufacturing plants. One of the manufacturers, Delta Circuits Inc., generates almost $5 million in annual sales. The site also includes 11 acres of public park space with baseball fields, a skateboard park and a family aquatic center.

Figure 14. Reed Keppler Park (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 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 17 businesses and organizations operating on seven sites in reuse and continued use in Indiana. The businesses and organizations employ almost 500 people and contribute an estimated $19 million in annual employment income.

Table 5. Detailed site and business information for sites in reuse and continued use in Indiana (2016)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	7	3	9	$29 million	252	$7 million
In Continued Use	4	2	3	$17 million	84	$4 million
In Reuse and in Continued Use	3	2	5	$60 million	127	$8 million
Total	**14**	**7**	**17**	**$106 million**	**463**	**$19 million**

[a] No sites are federal facilities. Federal facility sites are excluded from all other detailed site and business data presented above.
[b] Business information is not available for all businesses on all Superfund sites in reuse or continued use.

Property Values and Property Tax Revenues

EPA has collected property value data for seven Superfund sites in reuse and continued use in Indiana. These sites span 107 property parcels and 292 acres. They have a total property value of $24 million. Detailed land value information is available for six sites. Together, the site properties have a total land value of $6.6 million. Detailed improvement value is available for seven sites. Together, the site properties have a total improvement value of $17 million. Property tax information is available for five sites. Properties at these sites generate a combined $500,000 in property taxes.

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

Total Land Value (6 sites)	Total Improvement Value (7 sites)	Total Property Value (7 sites)	Total Annual Property Taxes (5 sites)
$6.6 million	$17 million	$24 million	$500,000

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2015 to 2017.

Did You Know?

The Prestolite Battery Division site in Vincennes, Indiana, supports five businesses, including a Lowe's Home Center and a Holiday Inn. The businesses on site provide an estimated $4.8 million in annual employment income.

Figure 15. Lowe's Home Center (Indiana)

State Reuse Profile: Michigan

EPA partners with the Michigan Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Michigan. Michigan has 27 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 57 businesses and organizations operating on 19 sites in reuse and continued use in Michigan. The businesses and organizations employ about 1,100 people and contribute an estimated $70 million in annual employment income.

Table 7. Detailed site and business information for sites in reuse and continued use in Michigan (2016)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	13	9	26	$80 million	323	$18 million
In Continued Use	10	7	9	$205 million	455	$34 million
In Reuse and in Continued Use	4	3	22	$52 million	330	$18 million
Total	**27**	**19**	**57**	**$337 million**	**1,108**	**$70 million**

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

Property Values and Property Tax Revenues

EPA has collected property value data for six Superfund sites in reuse and continued use in Michigan. These sites span 93 property parcels and 95 acres. They have a total property value of $11 million. Detailed property value information is not available for these sites. Property tax information is available for four sites. Properties at these sites generate a combined $329,000 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)
–	–	$11 million	$329,000

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2016 to 2017.
[b] The total land value and total improvement value for the six sites in Michigan with total property value were not available.

Did You Know?

The Bendix Corp./Allied Automotive site in Saint Joseph, Michigan, is a former iron casting foundry and machine shop. Today the site is home to Robert Bosch LLC, an automotive brake manufacturer. Robert Bosch has $100 million in sales annually, and provides over $1 million in employee income each year.

Figure 16. Robert Bosch LLC (Michigan)

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 30 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 189 businesses and organizations operating on 20 sites in reuse and continued use in Minnesota. The businesses and organizations employ over 4,500 people and contribute an estimated $284 million in annual employment income.

Table 9. Detailed site and business information for sites in reuse and continued use in Minnesota (2016)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	16	10	148	$667 million	2,556	$145 million
In Continued Use	11	7	29	$1.54 billion	1,799	$129 million
In Reuse and in Continued Use	3	3	12	$15 million	187	$10 million
Total	**30**	**20**	**189**	**$2.22 billion**	**4,542**	**$284 million**

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

Property Values and Property Tax Revenues

EPA has collected property value data for 21 Superfund sites in reuse and continued use in Minnesota. These sites span 396 property parcels and 1,377 acres. They have a total property value of $313 million. Detailed land value information is available for 20 sites. Together, the site properties have a total land value of $96 million. Detailed improvement value information is available for 18 sites. Together, the site properties have a total improvement value of $217 million. Property tax information is available for all 21 sites. Properties at these sites generate a combined $9.3 million in property taxes.

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

Total Land Value (20 sites)	Total Improvement Value (18 sites)	Total Property Value (21 sites)	Total Annual Property Taxes (21 sites)
$96 million	$217 million	$313 million	$9.3 million

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2016 to 2017.

Did You Know?

The Joslyn Manufacturing & Supply Co. site in Brooklyn Center, Minnesota, was a wood treatment facility for over 50 years. Real Estate Recycling (Hyde Development), a company specializing in previously contaminated land, redeveloped the site into the Twin Lakes Business Park. A manufacturer operating at the business park, Katadyn North America, Inc., has over $3 million in sales annually and contributes over $900,000 in annual employee income.

Figure 17. Katadyn North America, Inc. (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 20 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 65 businesses and organizations operating on 10 sites in reuse and continued use in Ohio. The businesses and organizations employ over 2,700 people and contribute an estimated $173 million in annual employment income.

Table 11. Detailed site and business information for sites in reuse and continued use in Ohio (2016)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	11	5	49	$477 million	1,718	$106 million
In Continued Use	9	5	16	$331 million	996	$67 million
In Reuse and in Continued Use	0	0	0	$0	0	$0
Total	**20**	**10**	**65**	**$808 million**	**2,714**	**$173 million**

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

Property Values and Property Tax Revenues

EPA has collected property value data for seven Superfund sites in reuse and continued use in Ohio. These sites span 208 property parcels and 1,231 acres. They have a total property value of $53 million. Detailed property value information is available for all seven sites. Together, the site properties have a total land value of $16 million and a total improvement value of $37 million. Property tax information is available for all seven sites. Properties at these sites generate a combined $754,000 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)
$16 million	$37 million	$53 million	$754,000

[a] The property value and tax amounts reflect 2016 property value year and tax data, the latest information available in county assessor datasets.

Did You Know?

Engines Inc. of Ohio, a machining and fabrication business, operates at the The Point industrial park at the South Point Plant site in southern Ohio. The firm started in one building at the site. It has since expanded into three buildings. The business generates an estimated $14 million in sales annually and contributes an estimated $4.5 million in annual employment income.

Figure 18. Engines Inc. of Ohio (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 15 businesses and organizations operating on seven sites in reuse and continued use in Wisconsin. The businesses and organizations employ 720 people and contribute an estimated $37 million in annual employment income.

Table 13. Detailed site and business information for sites in reuse and continued use in Wisconsin (2016)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	5	2	5	$101 million	270	$16 million
In Continued Use	8	4	6	$108 million	431	$20 million
In Reuse and in Continued Use	1	1	4	$1 million	19	$1 million
Total	**14**	**7**	**15**	**$210 million**	**720**	**$37 million**

[a] No sites are federal facilities. Federal facility sites are excluded from all other detailed site and business data presented above.
[b] Business information is not available for all businesses on all Superfund sites in reuse or continued use.

Property Values and Property Tax Revenues

EPA has collected property value data for seven Superfund sites in reuse and continued use in Wisconsin. These sites span 18 property parcels and 260 acres. They have a total property value of $4.7 million. Detailed property value information is available for all seven sites. Together, the site properties have a total land value of $1.1 million and a total improvement value of $3.6 million. Property tax information is available for all seven sites. Properties at these sites generate a combined $99,000 in property taxes.

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

Total Land Value (7 sites)	Total Improvement Value (7 sites)	Total Property Value (7 sites)	Total Annual Property Taxes (7 sites)
$1.1 million	$3.6 million	$4.7 million	$99,000

[a] The property value and tax amounts reflect 2016 property value year and tax data, the latest information available in county assessor datasets.

Did You Know?

The Tomah Fairgrounds Superfund site in Tomah, Wisconsin, was once an industrial and municipal waste dump site. The city of Tomah covered the site and now uses the area for fairground parking. A hockey rink also operates on site contributing nearly $150,000 in annual employment income.

Figure 19. Fairgrounds parking lot (Wisconsin)

Reuse on the Horizon in Region 5

Transforming an Industrial and Illegal Dump Site into a Commercial and Residential Development

Located in Benton Harbor, Michigan, the 17-acre Aircraft Components, Inc. (D&L Sales) Superfund site was home to several manufacturing facilities from the 1910s until the 1950s. An aircraft component manufacturing company operated on the site from 1972 until the early 1990s. Site operations included metal furniture manufacturing, printing, electroplating, machining and aircraft gauge manufacturing, among others.

Facility operations contaminated site soils, sediments, groundwater and buildings. During industrial use of the property, fill materials were used to alter the existing riverbank and build up low-lying portions of the site. Illegal dumping also occurred on the site's northern portion. During the site's use as an aircraft component manufacturer, operators released and dispersed radium-226 throughout site buildings.

Figure 20. Golf course

Beginning in 1995, EPA completed several short-term response actions at the site. These actions included installing a fence around the site, posting radiation warning signs, removal of radiologically contaminated buildings and site materials, and decontamination of building foundations.

EPA added the site to the NPL in 1996. Long-term cleanup actions included demolition and removal of remaining contaminated buildings, excavation and disposal of contaminated soils and sediments, and groundwater treatment injections. Groundwater monitoring continues.

Currently, one hole of the Harbor Shores golf course occupies part of the site. In 2010, EPA amended the cleanup plan to allow for residential development. Today, the site is part of a community-wide development project. In 2017, EPA announced the beginning of construction of a new commercial/residential development on site. EPA worked with the developer to ensure that construction work plans and design were in compliance with the institutional controls and remedy at the site. The site will host an area of the development called "Hideaway," which will contain close to 60 cottage-style homes available for purchase. Construction of the development is expected to be completed by the end of 2017.

Conclusion

EPA works closely with its partners at Superfund sites across the Great Lakes region to make sure sites can safely be reused or remain in continued use during and following cleanup. EPA also works with existing businesses and organizations at Superfund sites throughout the cleanup process to make sure they can remain open.

The businesses and organizations operating on these sites provide jobs and income for communities. They help generate local and state taxes. Cleanup and redevelopment also helps stabilize and boost property values. There are 114 NPL sites and 14 non-NPL Superfund sites in Region 5 that have either new uses in place or uses that have remained in place since before cleanup. Future uses are planned for many more Superfund sites in Region 5, including at least one site in each of the six Region 5 states. EPA remains committed to working with all stakeholders to support Superfund redevelopment opportunities in Region 5.

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

Across 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 to support the restoration and renewal of these sites as long-term assets.

Figure 21. NL Industries/Taracorp/Golden Auto site (Minnesota)

EPA Superfund Site Reuse Resources

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

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

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

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

Sources

Business, Jobs, Sales and Income Information

Information on the number of employees and sales volume for on-site businesses comes from the Hoovers/Dun & Bradstreet (D&B) (dnb.com) database. EPA also gathers information on businesses and corporations from D&B. D&B maintains a database of more than 225 million active and inactive businesses worldwide. Database data include public records, financials, private company insights, extensive global information, telephone numbers and physical addresses. When D&B database research cannot identify employment and sales volume for on-site businesses, EPA uses the Manta (manta.com) database. The Reference USA (resource.referenceusa.com) database is used only after it is determined that D&B and Manta do not provide economic data for a site business. The databases include data reported by businesses. Accordingly, some reported values might be underestimates or overestimates. In some instances, business and employment information also comes from local newspaper articles and discussions with local officials and business representatives. While sales values typically exceed estimated totals of annual income, sales can sometimes be lower than estimated income. This can be attributed to a number of business conditions and/or data reporting. Data included are obtained directly from the aforementioned sources, and reported as presented by those sources.

EPA obtains wage and income information from the U.S. Bureau of Labor Statistics (BLS). EPA uses the BLS Quarterly Census of Employment and Wages database to obtain average weekly wage data for the identified businesses. Average weekly wage data are identified by matching the North American Industry Classification System (NAICS) codes for 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 2016. Estimated annual employment income was calculated using 2016 jobs data and BLS average weekly wage data for those jobs from 2015 (the latest available wage data at the time of this profile). All income and sales figures presented have been rounded for the convenience of the reader. Federal facility sites are included in calculations of total sites in reuse or continued use only. Federal facility sites are excluded from all other calculations (i.e., number of sites with businesses, number of businesses, total jobs, total income and total annual sales).

Property Value and Tax Information

EPA collected on-site property values and property taxes included in this profile for a subset of Superfund sites by comparing available site boundary information with available parcel boundary information and gathering information for selected parcels from county assessor datasets. The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2015 to 2017. All figures presented have been rounded for the convenience of the reader. Federal facility sites are excluded from all property value and tax calculations.

Reuse in Action

Write-ups of sites in reuse or continued use included in this study are based on available EPA resources, including Superfund Redevelopment Initiative case studies as well as other resources. Links to EPA's Superfund Redevelopment Initiative case studies and other resources are included below.

Superfund Redevelopment Initiative Case Studies

Allied Paper/Portage Creek/Kalamazoo River. 2014. Historic Preservation and Mixed-Use Superfund Redevelopment, The Plainwell Paper Mill in Plainwell, Michigan. Accessed at: semspub.epa.gov/src/document/05/633266.pdf

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. Accessed at: semspub.epa.gov/src/document/05/633263.pdf

PMC Groundwater. 2014. Reuse and the Benefit to Community: PMC Groundwater Superfund Site. Accessed at: semspub.epa.gov/src/document/05/633374.pdf

Reilly Tar & Chemical Corp. (Indianapolis Plant). 2014. Utility-Scale Solar Energy Development: Reilly Tar & Chemical Corp. (Indianapolis Plant) Superfund site. Accessed at: semspub.epa.gov/src/document/03/900106.pdf

South Point Plant. 2010. Cleanup and Industrial Revitalization in the Tri-State Region: The South Point Plant Superfund Site and Lawrence County, Ohio. Accessed at: semspub.epa.gov/src/document/05/633305.pdf

South Point Plant. 2014. Reuse and the Benefit to Community: South Point Plant Superfund Site. Accessed at: semspub.epa.gov/src/document/05/633377.pdf

Other Resources

Harbor Shores Development Plan. Accessed at: harborshores.brightdoor.com/maps/#preview=true

United States Environmental Protection Agency
Region 5
77 West Jackson Blvd.
Chicago, IL 60604-3590

September 2017 | https://www.epa.gov/aboutepa/epa-region-5