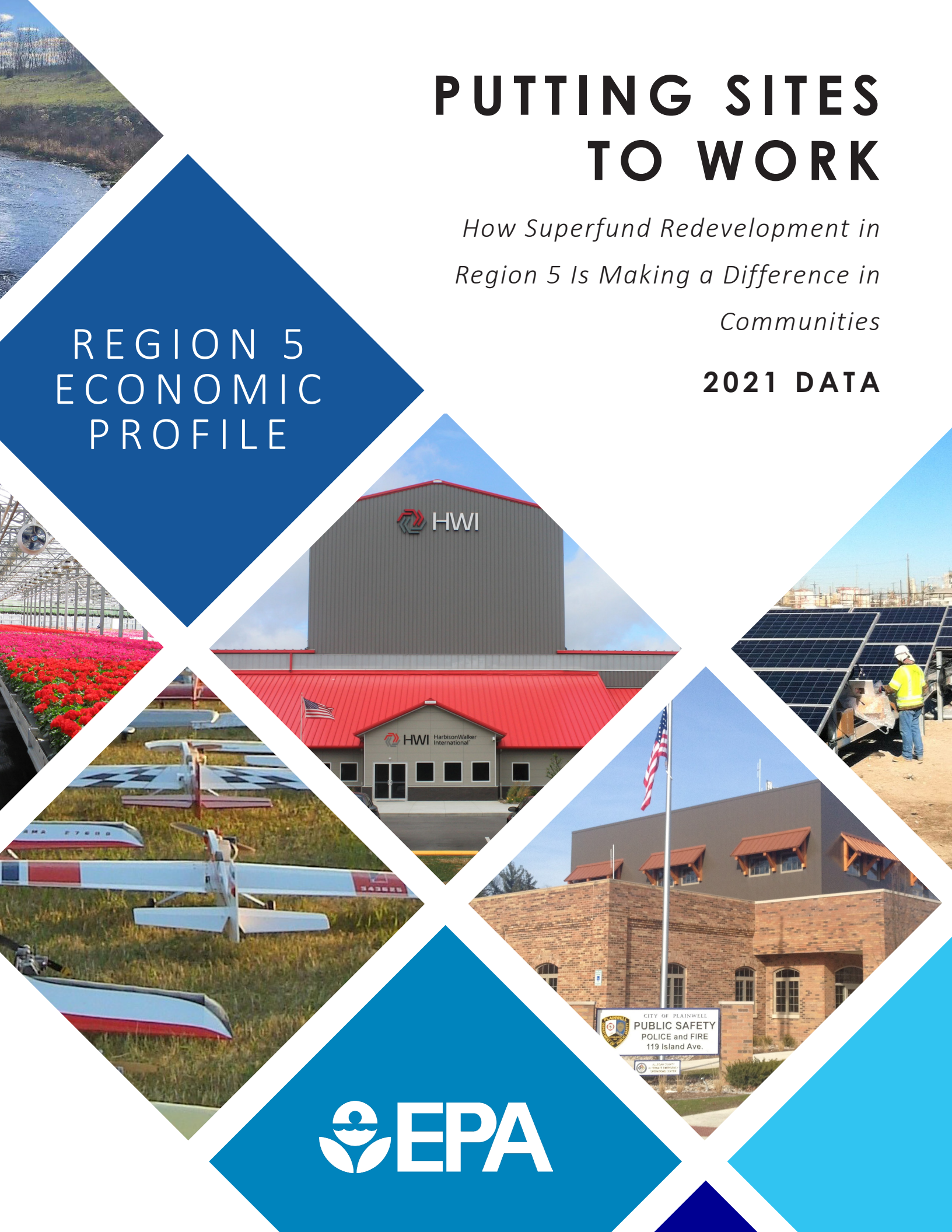


PUTTING SITES TO WORK

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

2021 DATA

REGION 5
ECONOMIC
PROFILE



Cover page photos:

*Southside Sanitary Landfill (Indiana), FMC Corp. (Fridley Plant) (Minnesota), South Point Plant (Ohio), Allied Paper, Inc./
Portage Creek/Kalamazoo River site (Michigan), Reilly Tar & Chemical Corp. (Indianapolis Plant)*

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Figure 1. Recreational reuse at the Southside Sanitary Landfill site (Indiana).

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PREFACE

EPA's Superfund program is a cornerstone of the work that the Agency performs for people and communities across the country. The revitalization of places affected by contaminated lands is a key part of Superfund's mission, meeting community needs for thriving economies and improved environmental and public health outcomes. Through EPA's Superfund Redevelopment Program, the Agency contributes to these communities' economic vitality by supporting the return of sites to productive use.

EPA is focused on accelerating work and progress at all Superfund sites across the country, and supporting redevelopment and community revitalization. Using resources from the 2021 Bipartisan Infrastructure Law, EPA is providing necessary funding to enable delayed cleanup efforts at 49 Superfund sites to move forward. More than 60% of these sites are in historically underserved communities. EPA is leading the way to support the return of these and other once-contaminated sites to productive use.

These regional profiles highlight community-led efforts as EPA expedites cleanup and remediation and engages with partners and stakeholders to support redevelopment and community revitalization.

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INTRODUCTION

EPA's Region 5 office serves Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin and 35 tribes. Since the 1950s, the states in EPA Region 5 – the Great Lakes Region – 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 significant job losses and substantial neighborhood and downtown declines in communities across the region. While continuing to emphasize manufacturing as an economic cornerstone and a source of jobs, state and local leaders are helping communities adjust to these large-scale economic changes. 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 amenities to surrounding communities that have been negatively affected by contamination. Site redevelopment can revitalize a local economy with jobs, new businesses, tax revenues and local spending.

Through efforts such as the Superfund Redevelopment Program, EPA Region 5 helps communities reclaim cleaned-up Superfund sites. Factoring the reasonably anticipated 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 vacant or underused. EPA Region 5 works to ensure that businesses on properties being cleaned up under Superfund can continue operating in a way that protects human health and the environment during site investigations and cleanup work. This continuity enables these businesses to remain open and serve as a source of jobs and income for local communities.¹

Superfund sites across Region 5 are home to commercial and industrial parks, retail centers, condominiums and singlefamily homes. Many sites continue to host industrial operations, including large-scale manufacturing facilities. Some sites now support 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 17,622 jobs and contribute an estimated \$1.3 billion in annual employment income. Sites in reuse and continued use in Region 5 generate \$27.1 million in annual property tax revenues for local governments.¹

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

Businesses:	501
Total Annual Sales:	\$5.8 billion
Number of People Employed:	17,622
Total Annual Employee Income:	\$1.3 billion



Figure 2. Dalco Enterprises is part of the New Brighton Corporate Park III at the MacGillis & Gibbs Co./Bell Lumber & Pole Co. site (Minnesota).

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 63 Superfund sites in reuse or continued use in Region 5 for which EPA does not have business data, including 13 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 (e.g., parks, wetlands, ecological habitat and open space). In addition, there are 80 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.

This profile looks at how redevelopment activities at Superfund sites make a difference in communities across Region 5. In particular, it describes some of the beneficial effects of redevelopment 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 and sites that have remained in use throughout the cleanup process. EPA updates these profiles periodically. 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.

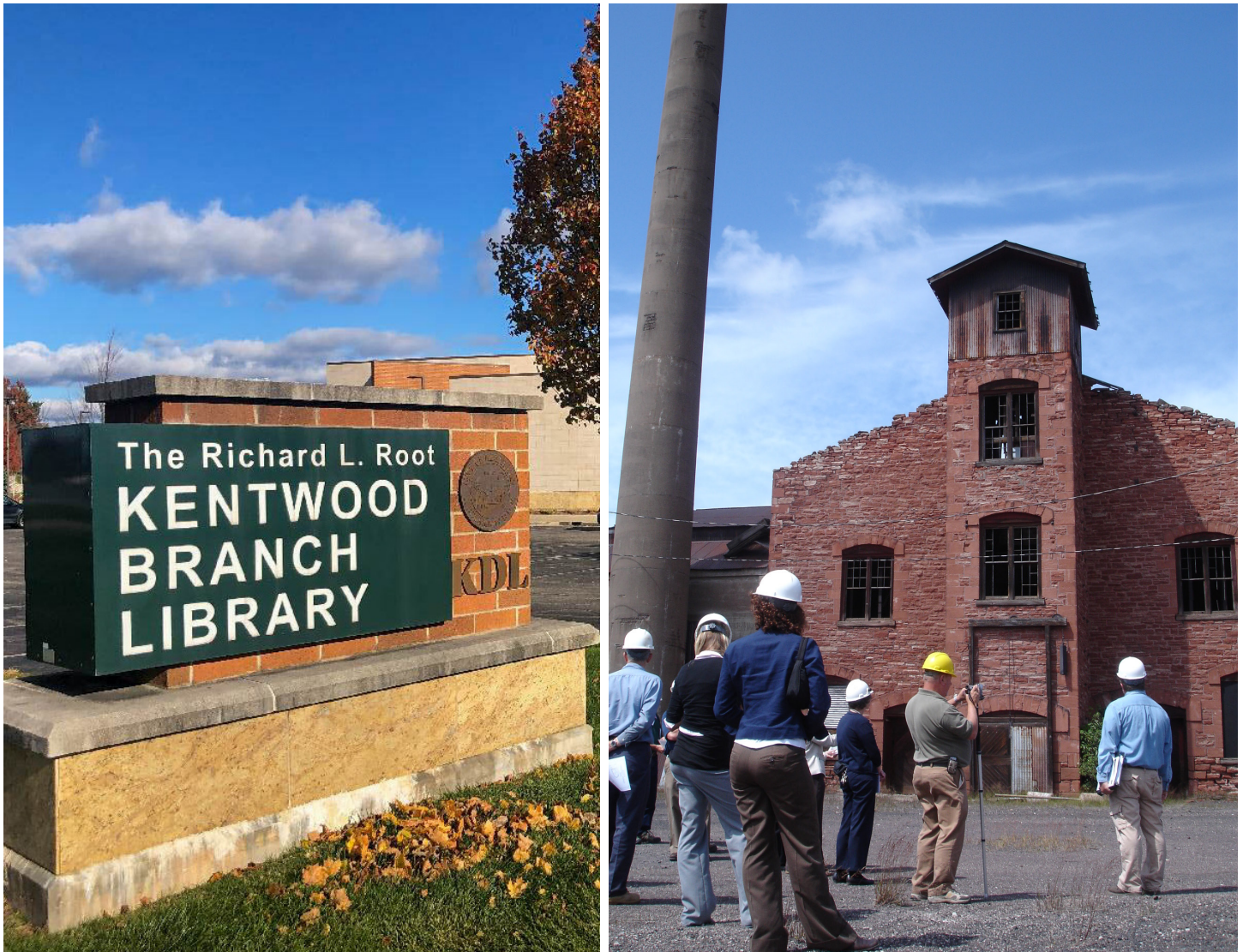


Figure 3. Left: Library at the Kentwood Landfill site (Michigan). Right: Historic mining facility at the Keweenaw National Historical Park, part of the Torch Lake site (Michigan).

SUPPORT FOR SUPERFUND REDEVELOPMENT

EPA Region 5 is committed to improving the health and livelihood of Americans by cleaning up and returning land to productive use. In addition to protecting human health and the environment through the Superfund program, Region 5 partners with stakeholders to encourage redevelopment opportunities at Superfund sites. Region 5 helps communities and cleanup managers consider redevelopment during cleanup planning and evaluate remedies already in place to ensure appropriate redevelopment. In addition, EPA participates in partnerships with communities and encourages opportunities to support Superfund redevelopment projects that emphasize environmental and economic sustainability.

Specific redevelopment support efforts in EPA Region 5 include:

- Identifying and evaluating local land use priorities to align with site cleanup plans through the redevelopment planning process.
- Facilitating cleanup and redevelopment 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 redevelopment forward.
- Making efforts to help address communities' and developers' liability, safety and reuse concerns through development of educational materials, comfort letters, developer agreements and environmental status reports – known as Ready for Reuse Determinations – that provide information about the appropriate use of sites.
- 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, websites, webinars and reuse case studies to share opportunities and lessons associated with Superfund Redevelopment.

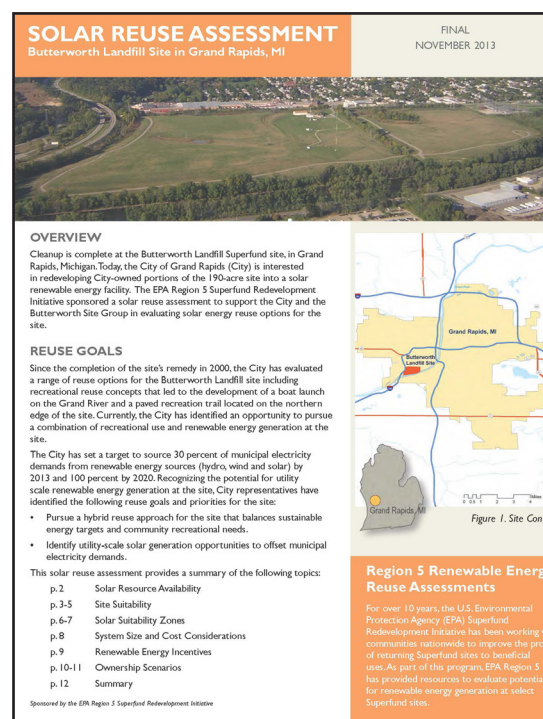


Figure 4. The Solar Reuse Assessment Report for the Butterworth #2 Landfill (Michigan).

These efforts have helped build expertise across Region 5, making it easier to both consider future use of Superfund sites prior to cleanup and to identify opportunities for removing reuse barriers. These efforts also help tribes, state agencies, local governments, communities, potentially responsible parties, site owners, developers, and other partners and stakeholders to better understand the potential for future use opportunities 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.

SUPERFUND REDEVELOPMENT: THE BIG PICTURE

EPA can take and oversee immediate action at contaminated sites through short-term cleanup actions, also called removal actions.² 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 targeted by the Agency 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 to address it and evaluates alternative cleanup approaches. EPA then proposes a cleanup plan and, after collecting public input, issues a final cleanup plan. The Agency then cleans up the site or oversees cleanup activities. EPA has placed 327 sites in Region 5 on the NPL.

Whenever possible, EPA seeks to integrate redevelopment priorities into site cleanup plans. In Region 5, EPA currently tracks 139 NPL sites and 23 non-NPL Superfund sites that 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 and agricultural uses. Businesses and other organizations also support culturally and historically significant uses on site areas. Many redeveloped sites support multiple uses and have the capacity to support additional uses and further redevelopment. The following sections take a closer look at the beneficial effects of businesses operating on current and former Superfund sites in Region 5.

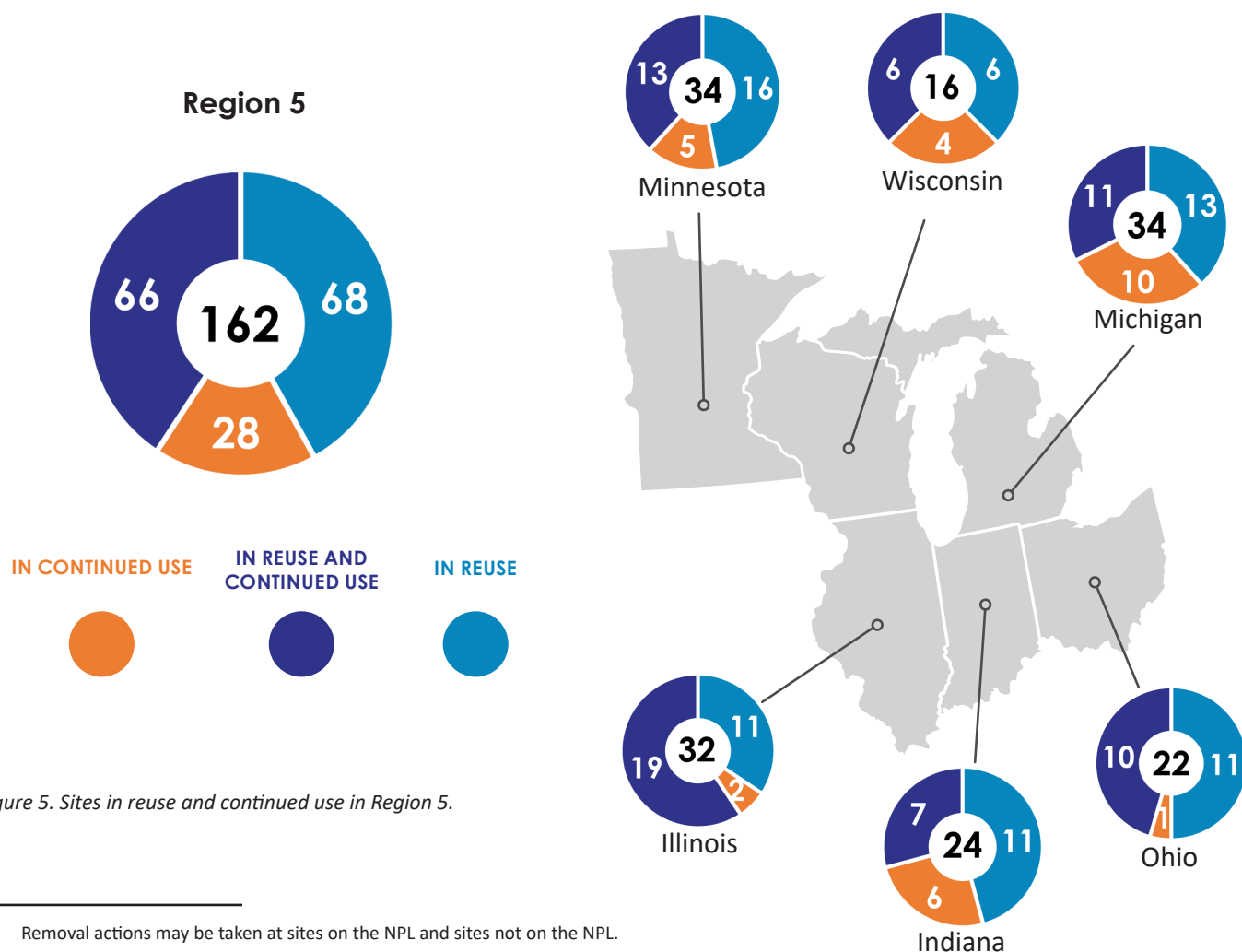


Figure 5. Sites in reuse and continued use in Region 5.

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



Figure 6. Left: Entrance to the Waukegan Harbor and Marina at the North Shore Gas South Plant (Illinois). Right: A main line railroad runs east to west through the Burlington Northern (Brainerd/Baxter Plant) site (Minnesota).

Sites in Reuse and Continued Use: A Closer Look

Reuse Type	Description	Region 5 Example
<i>In Reuse</i>	<i>Part or all of a site is being used in a new, different manner than before Superfund involvement. Or, the property was vacant and cleanup was designed to support a new, specific land use.</i>	<i>North Shore Gas South Plant (Illinois) – This former manufactured gas plant site is now home to the Waukegan Harbor and Marina, a paint and coatings manufacturer, and a yachting center.</i>
<i>In Continued Use</i>	<i>Historical uses at a site remain active, and/or the site is still used in the same general manner as when the Superfund process started at the site.</i>	<i>Burlington Northern (Brainerd/Baxter Plant) (Minnesota) – BNSF Railways and its predecessors have operated at this site since 1907. The Burlington Northern main line railroad has remained active during the site’s cleanup.</i>
<i>In Reuse and Continued Use</i>	<i>Part of a site is in continued use and part of the site is in reuse.</i>	<i>Behr Dayton Thermal System VOC Plume (Ohio) – Since 1936, site uses have included vehicle air conditioning and cooling systems manufacturing facilities, industrial laundry services, and bulk chemical handling and storage. There are also several parks on site. Ongoing redevelopment planning is focused on making these areas accessible for local residents.</i>

BENEFICIAL EFFECTS OF SUPERFUND SITE REDEVELOPMENT IN REGION 5

Businesses and Jobs

EPA has collected economic data for 501 businesses, government agencies and civic organizations operating on 89 NPL sites and 10 non-NPL sites in reuse and continued use in Region 5.³ (See the State Redevelopment Profiles for each state's reuse details.) Businesses and organizations at these sites are part of several different sectors, including lodging, professional trade, industrial trade and health care services.

Businesses and organizations at Region 5 Superfund sites include hotels, schools, grocery stores, restaurants, civic and social organizations, freight transportation facilities, health care centers and manufacturing facilities.

The businesses and organizations at these sites generate about \$5.8 billion in estimated annual sales and employ about 17,622 people, earning an estimated \$1.3 billion in annual employment income. This income injects money into local economies and generates revenue through personal state income taxes. These businesses also help local economies through direct purchases of local supplies and services. On-site businesses that produce retail sales and services also generate tax revenues through the collection of sales taxes, which support state and local governments. Table 1 provides more detailed information.⁴

Table 1. Site and Business Information for Region 5 Sites in Reuse and Continued Use (2021)

	Sites ^a	Sites with Businesses ^b	Businesses ^c	Total Annual Sales ^d	Total Employees	Total Annual Employee Income ^e
<i>In Reuse^f</i>	68	39	202	\$2.2 billion	7,826	\$616 million
<i>In Continued Use^g</i>	28	13	13	\$1.4 billion	2,107	\$246 million
<i>In Reuse and in Continued Use</i>	66	47	286	\$2.1 billion	7,689	\$474 million
Totals	162	99	501	\$5.8 billion	17,622	\$1.3 billion

^a Thirteen sites are federal facilities. Federal facility sites are excluded from all other detailed site and business data presented above.

^b See footnote 1, page 1. 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.

^e Throughout this report, sales and annual employee income may not sum exactly to the totals presented due to rounding.

^f A site identified as "in reuse" refers to a site where a new use or uses are occurring such that there has been a change in the type of use (e.g., industrial to commercial), or the property was unused and now supports a specific use. This means that the developed site is actually used for its intended purpose by customers, visitors, employees, residents or fauna, in the case of ecological reuse.

^g A site identified as "in continued use" refers to areas being used in the same general manner as they were when the site became subject to the Superfund or Federal Facility programs.

³ See footnote 1, page 1.

⁴ For more information on the collection of business, jobs and sales data, see the Sources section.

Property Values and Property Tax Revenues

Properties cleaned up under the Superfund program and returned to use have the potential to increase in value significantly. For example, site properties at the Reilly Tar & Chemical Corp. (St. Louis Park Plant) site in Minnesota are now valued at nearly \$61 million. This increased value can boost property tax revenues, which help pay for local government operations, schools, transit systems and other public services.

Identifying increases in property values and property taxes following cleanup and reuse is challenging. This is due to several factors, including limited data on past property values and the frequency and timing of local property value assessments. 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 redevelopment 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.

EPA has collected property value and tax data for 82 Superfund sites in reuse and continued use in Region 5.⁵ These sites span 3,520 property parcels and 14,180 acres. They have a total property value of \$796 million. The average total property value per acre is \$56,000.

Land and improvement property value information is available for 66 sites. These properties have a total land value of \$240 million and a total improvement value of \$499 million.⁶

Property tax information is available for 82 sites. The properties generate a combined \$27.1 million in local property taxes annually.

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

Total Property Value: \$796 million

Total Annual Property Taxes: \$27.1 million



Figure 7. Townhomes at the PMC Groundwater site (Michigan).

Table 2. Property Value and Tax Information for Sites in Reuse and Continued Use in Region 5^a

Total Land Value (66 sites) ^b	Total Improvement Value ^c (66 sites)	Total Property Value (82 sites)	Total Property Value per Acre (81 sites) ^d	Total Annual Property Taxes (82 sites)
\$240 million	\$499 million	\$796 million	\$56,000	\$27.1 million

^a Results are based on an EPA Superfund Redevelopment Program effort 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 2019 to 2022. For more information, see the Sources section. Throughout this report, property and tax values may not sum exactly to the totals presented due to rounding.

^b Detailed (land and improvement) property value data as well as tax data were not available for every site.

^c Land and improvement value for nine of the sites is listed as \$0.

^d Based on total property value amount of \$796 million divided by total acreage of 14,180.

5 There are 80 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. See footnote 1, page 1.

6 Property values consist of land value and the value of any improvements (buildings and infrastructure) placed on a property. When sites are redeveloped, some or all of these improvements may be new or already in place. In some cases, the breakdown showing the land value and improvement value is not always available; only the total property value may be available.

BENEFICIAL EFFECTS FROM ENHANCED RECREATIONAL AND ECOLOGICAL AMENITIES

In addition to hosting commercial developments, retail centers and industrial facilities, many Region 5 sites in reuse and continued use provide recreational and ecological benefits. Green space and habitat reuses help attract visitors and residents and indirectly contribute to local economies.

Careful planning can enable the integration of green spaces and habitat into site cleanup plans, resulting in the transformation of contaminated properties into valuable community and wildlife assets. Green spaces are integral components of sustainable communities – they help protect the environment and human health while providing other social and economic benefits. Parks, community gardens and other public green spaces create opportunities for people to gather, exercise and connect with nature. The creation of green spaces and habitat at once-contaminated properties serves to re-introduce ecosystems and biodiversity into urban and suburban landscapes by providing corridors for migrating species and preserving habitat. They can also mitigate stormwater runoff problems by slowly absorbing and naturally filtering stormwater, resulting in improved water quality due to decreased runoff and erosion.

Parks, natural areas and scenic landscapes also have great economic value – supporting regional economies through tourism, agriculture and other activities. Economic impacts of recreation activities can include outdoor recreation spending and reduced public costs related to healthcare and infrastructure. In 2017, outdoor recreation contributed \$887 billion to the U.S. economy, supporting 7.6 million jobs and generating \$65.3 billion in national tax revenue and \$59.2 billion in state and local tax revenue.⁷ Protected green space can also increase the property values of nearby homes by providing amenities that draw people to live and work in the community. Many sites in Region 5 provide recreational and ecological benefits.



Figure 8. Children's Grove kid's area at the Petersen Sand & Gravel site (Illinois).

⁷ The Outdoor Recreation Economy. Outdoor Industry Association. Available at [outdoorindustry.org/wp-content/uploads/2017/04/OIA_RecEconomy_FINAL_Single.pdf](https://www.outdoorindustry.org/wp-content/uploads/2017/04/OIA_RecEconomy_FINAL_Single.pdf).

BUTTERWORTH #2 LANDFILL

FROM LANDFILL TO RECREATION RESOURCE

The 180-acre Butterworth #2 Landfill Superfund site extends along the bank of the Grand River in Grand Rapids, Michigan. The city of Grand Rapids ran the landfill as an open dump from 1950 to 1967. A sanitary landfill then operated on site from 1967 to 1973, when the state closed it due to improper operations. The landfill received municipal, solid and industrial wastes, and operations contaminated groundwater and soil. EPA added the site to the NPL in 1983. Cleanup of the site included capping the landfill and putting in groundwater monitoring wells.

Today, following cleanup, a radio station operates on site, contributing nearly \$1.7 million in estimated annual employee income. In addition to the economic activity, the former landfill has become a beneficial part of the area's recreation infrastructure.

In 2002, the city began to discuss possible future uses for the site. To convert the area into a public recreation resource, the city worked with EPA on reuse plans that would enable recreational use while protecting human health and the environment. The city continues to work with the community and recreation organizations on reuse planning. The median income for the more than 8,440 people living within a mile of the site's boundary is \$47,068, compared with \$60,910 countywide.

In 2009, EPA approved a request from the city to extend a bike trail across the site using existing access roads. Also in 2009, EPA and the city worked together to allow a local marathon to use site access roads. EPA has also worked with the city to evaluate the site's capacity to support a solar energy facility. The solar project is on hold while the city continues to evaluate its future renewable energy needs.



Figure 9. A sign showing recreation trails at the Butterworth #2 Landfill site (Michigan).

EAST BETHEL DEMOLITION LANDFILL

ONCE-CONTAMINATED LAND PROVIDES ECOLOGICAL BENEFITS

The 60-acre East Bethel Demolition Landfill Superfund site is in East Bethel Township, Minnesota. About 500 people live within 1 mile of the site. The landfill covers 27 acres of the site. The landfill accepted demolition debris and other hazardous industrial wastes in the 1970s. In 1981, Anoka County found high levels of contaminants and dissolved metals in the groundwater. EPA added the site to the NPL in 1986. Cleanup actions included groundwater extraction and treatment, a new landfill cap and active gas venting. EPA deleted the site from the NPL in 1996.

Today, the Minnesota Pollution Control Agency's (MPCA's) Closed Landfill Program manages the site. The site shows how formerly contaminated lands can be cleaned up to provide diverse ecological benefits. The land management plan for the landfill led to the site's integration as part of the adjacent Sandhill Crane Natural Area, setting aside valuable habitat for migrating cranes in an area undergoing increasing development. The plan also includes conservation practices to encourage native plant diversity. MPCA has planted native grasses on part of the area to enhance wildlife habitat for the sandhill cranes.



Figure 10. MPCA planted native grasses to enhance wildlife habitat for sandhill cranes on part of the East Bethel Demolition Landfill (Minnesota).

Why Are Wetlands Economically Important?

Superfund site reuse can support wetland habitat, as seen at several sites in Region 5. Cleanup of the Fox River NRDA/PCB Releases site has restored wild rice areas and wetlands, and improved fisheries, increasing populations of native fish. The MPCA reconstructed wetland habitats at the St. Louis River site near Duluth, Minnesota, to improve fish health and productivity. At the Bowers Landfill site in Circleville, Ohio, wetlands along the Scioto River floodplain help protect the landfill cap and provide valuable habitat for plants, birds, fish and other animals.

Wetlands provide a variety of benefits. The combination of shallow water, high levels of nutrients and primary productivity is ideal for organisms that form the base of the food web and feed many species of fish, amphibians, shellfish and insects. Wetlands are extremely effective at

removing pollutants from water and acting as filters for future drinking water. Wetlands play a role in reducing the frequency and intensity of floods. They can store large amounts of carbon. They also provide recreation amenities.

These benefits also have economic value. Replacing wetlands' water treatment services with manmade facilities, for example, would be expensive. Worldwide, wetlands provide an estimated \$14.9 trillion benefit in ecosystem services. To learn more, see:

- *EPA's Economic Benefits of Wetlands*: www.epa.gov/sites/default/files/2021-01/documents/economic_benefits_of_wetlands.pdf.
- *EPA's Why Are Wetlands Important?*: www.epa.gov/wetlands/why-are-wetlands-important.
- *EPA's Functions and Values of Wetlands*: www.epa.gov/sites/default/files/2021-01/documents/functions_values_of_wetlands.pdf.

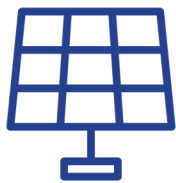


Figure 11. Restored habitat at the St. Louis River site (Minnesota).

BENEFICIAL EFFECTS FROM ALTERNATIVE ENERGY PROJECTS

Alternative energy projects provide a range of beneficial effects. They support construction and operations jobs, spur local investment for manufacturing and materials, create benefits for landowners in the form of land lease and right-of-way payments, lower energy costs, and reduce greenhouse gas emissions. They also help hedge against energy price and supply volatility, support local business competitiveness and technology supply chain development, provide outreach and public relations opportunities for site owners and communities, and contribute to broader economic development planning. Alternative energy projects at Superfund sites and other contaminated lands help support White House priorities to strengthen resilience to climate change and increase access to clean energy sources. These projects also can help communities reclaim and return contaminated lands to productive uses, while supporting EPA's mission to protect human health and the environment.

As of September 2022, EPA is tracking 8 alternative energy projects at 7 Superfund sites in Region 5. These projects have an installed capacity of about 35 megawatts. Three of these projects offset on-site energy demands of cleanup efforts or directly power site-related cleanup activities.



4

Solar Projects

Alternative energy projects tracked in **Region 5** generate an estimated **361,280 megawatt hours** each year.⁸ This is equivalent to...



256,033 metric tons of carbon dioxide.



1

Wind Project



The greenhouse gas emissions of **55,167** gasoline-powered passenger vehicles driven for one year.



3

Landfill Gas Projects



The carbon dioxide emissions from **32,251** homes' energy use for one year.

⁸ Equivalencies were calculated using power production. Production values were not available for three projects in Region 5. Estimated power production for solar projects was calculated using facility capacity (megawatts) with the National Renewable Energy Laboratory's PVWatts Calculator pvwatts.nrel.gov. To learn more about equivalencies, see www.epa.gov/energy/greenhouse-gas-equivalencies-calculator.

OPPORTUNITY ZONE TAX INCENTIVES AS A SUPERFUND REDEVELOPMENT TOOL

Opportunity Zones are a powerful tool to encourage economic revitalization in distressed communities by incentivizing long-term, sustainable investment in redevelopment and stimulating economic growth. State governors have designated 8,756 Opportunity Zones across the country in geographic areas that suffer double the national poverty rate. Socio-economic metrics show that Opportunity Zones are among the highest-need communities in the nation. The U.S. Department of the Treasury estimates that Opportunity Zones may attract up to \$100 billion in investments, which strengthens the financial viability of redevelopment projects at Superfund sites located in Opportunity Zones.

Redevelopment of current or former Superfund sites may qualify for Opportunity Zone tax benefits. Nationally, there are 343 NPL sites located entirely or partially in Opportunity Zones. Estimates indicate there are thousands of Superfund removal sites in Opportunity Zones across the nation. In Region 5, there are 56 NPL sites located entirely or partially in an Opportunity Zone. Redevelopment investments that meet appropriate qualifying criteria may be eligible for Opportunity Zone tax benefits. EPA and the U.S. Department of Housing and Urban Development (HUD) have tools and resources to help local leaders achieve equitable outcomes in Opportunity Zone development projects.

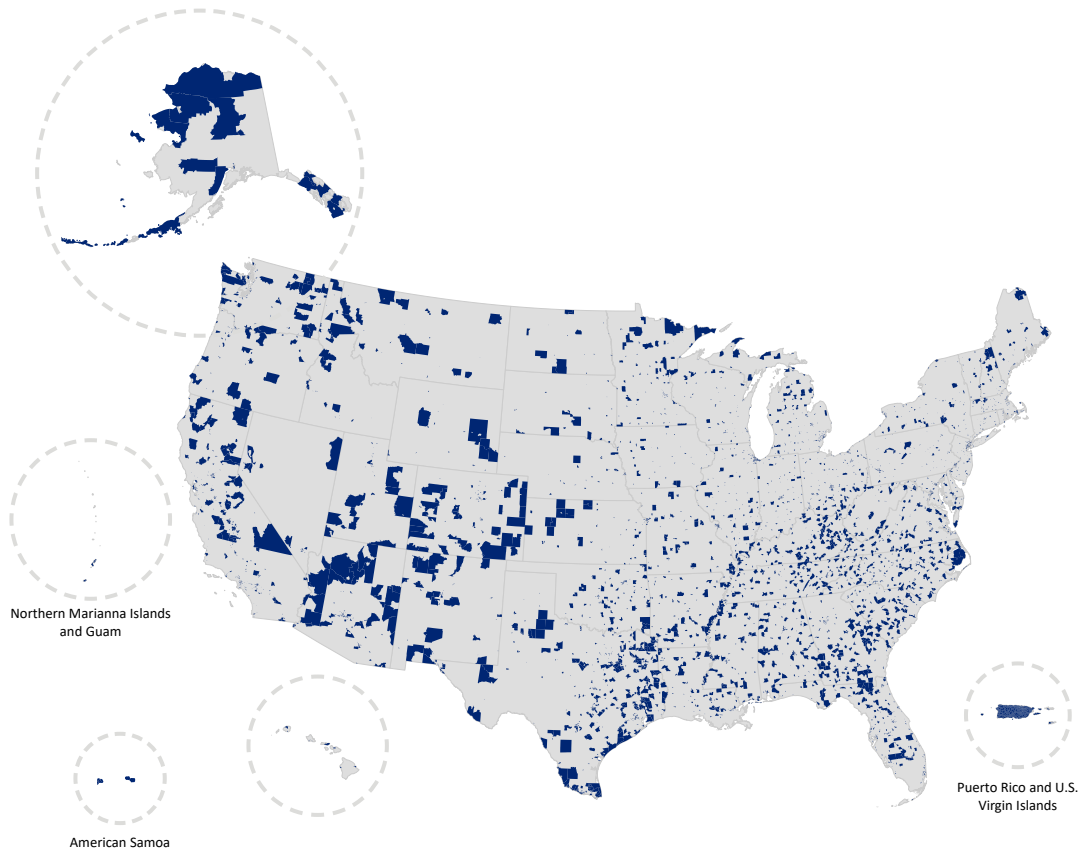


Figure 12. About 8,756 Opportunity Zones were established in all 50 states, the District of Columbia and the five U.S. territories.

ENVIRONMENTAL JUSTICE AND ECONOMIC REVITALIZATION

Communities with environmental justice concerns are disproportionately affected by environmental pollution and hazards and typically include marginalized, underserved, low-income groups and people of color, including tribal and indigenous people. Superfund cleanups and redevelopment are opportunities to evaluate how to reduce impacts on these communities and, through meaningful community involvement efforts, engage communities in productive dialogue to increase local benefits through reuse opportunities that meet community needs.

In 2021, President Biden issued two executive orders – Executive Order 13985 (Advancing Racial Equity and Support for Underserved Communities Through the Federal Government) and Executive Order 14008 (Tackling the Climate Crisis at Home and Abroad). The executive orders directed federal agencies to develop and implement policies and strategies that strengthen compliance and enforcement, incorporate environmental justice considerations in their work, increase community engagement, and ensure that at least 40% of the benefits from federal investments in climate and clean energy flow to underserved communities.

EPA has taken this charge to heart and, in September 2022, issued the *EJ Action Plan: Building Up Environmental Justice in EPA's Land Protection and Cleanup Programs (EJ Action Plan)*, intended to address land cleanup issues in overburdened communities across the country. The plan includes strategies to enhance nearly two dozen projects while addressing the need for stronger compliance, increased environmental justice considerations in EPA regulations, and improved community engagement. The plan also complements the recommendations for integrating environmental justice into the cleanup and redevelopment of Superfund and other contaminated sites highlighted in the May 2021 National Environmental Justice Advisory Council (NEJAC) report, *Superfund Remediation and Redevelopment for Environmental Justice Communities*.

In addition, EPA is using a \$1 billion investment from the Bipartisan Infrastructure Law to fund new cleanup projects at 49 Superfund sites across the country. Many of these sites have been part of a backlog of Superfund sites awaiting funding for cleanup, some of which have been waiting for over four years. This historic investment will finance cleanup at seven sites in Region 5.

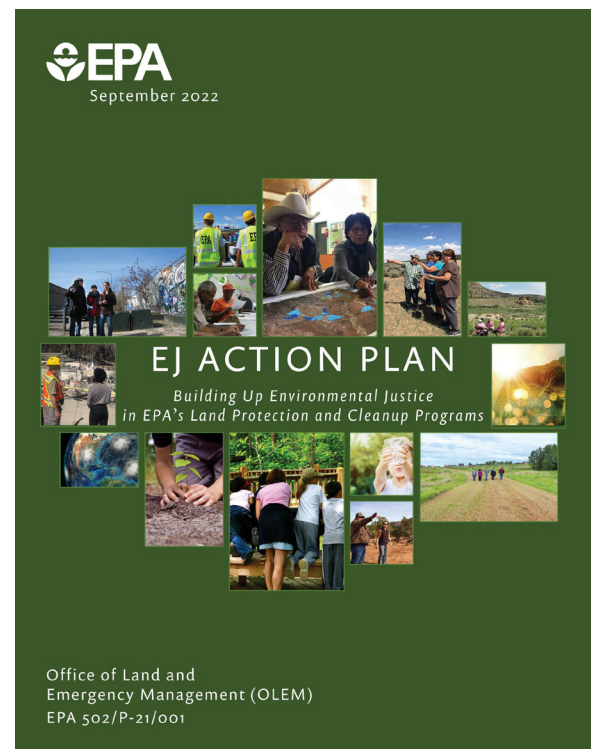


Figure 13. EPA's EJ Action Plan aims to address cleanup issues in overburdened communities across the country.

REDEVELOPMENT IN ACTION

JACOBSVILLE NEIGHBORHOOD SOIL CONTAMINATION CLEANUP SUPPORTS EFFORTS IN HOUSING, COMMUNITY REVITALIZATION

The 4.5-square-mile Jacobsville Neighborhood Soil Contamination Superfund site encompasses several neighborhoods in Evansville, Indiana. The median income for people living on site is \$33,516. More than a third of residents had an income below the federal poverty level in the preceding year.

Beginning in the 1880s, several manufacturing and foundry companies operated in the Jacobsville neighborhood and in other neighborhoods in Evansville. Airborne particulates from these operations are believed to have contaminated residential soil in the community with lead and arsenic. EPA added the site to the NPL in 2004. In 2009, the site received almost \$6.6 million in American Reinvestment and Recovery Act funds for cleanup and restoration work.

EPA began residential cleanups at the site in 2010. Cleanup has included removing and replacing contaminated soil at residential properties and spaces frequently used by the community, such as parks and daycares. After residential soil cleanup, EPA and its contractors have worked with property owners to restore their properties after soil cleanup, including re-establishing lawn areas and landscaping features. As of June 2022, workers had sampled more than 6,000 properties and cleaned up about 3,800 properties.

Since 2010, EPA has worked with many nonprofit groups as well as with private developers to enable redevelopment of hundreds of properties in Evansville. EPA regularly works with organizations such as Habitat for Humanity, HOPE of Evansville, Community Action Program of Evansville (CAPE), ECHO Housing Corporation, the City of Evansville Brownfields Department, U.S. Housing and Urban Development (HUD), and Metropolitan Community Development Corporation to prepare parcels for use so that affordable housing can be built on them.

EPA has worked with a variety of private developers on projects including a 119-apartment senior assisted living center that opened in 2018 and an affordable housing complex that includes 20 single-family homes, five duplexes and a 30-unit apartment building that opened in 2019. EPA is currently working with a developer on a several-square-block area where a mixed-use development will be constructed that will include both residential and commercial space. EPA also



Figure 14. ECHO veterans housing at the Jacobsville Neighborhood Soil Contamination site (Indiana).



Figure 15. A community garden at the Jacobsville Neighborhood Soil Contamination site (Indiana).

worked with the City of Evansville during their preparation of a six-acre area that is now the location of the Deaconess Aquatic Center, which houses a competition pool, recreational pool, splash park, and community center. The ECHO Housing Corporation, which focuses on providing affordable housing for disabled and homeless military veterans in the State of Indiana, has built three housing developments after coordinating with EPA to ensure the parcels were tested and cleaned up. EPA has tested all parks and schools within the Jacobsville site boundary. At one park in the Jacobsville neighborhood, a local Eagle Scout added landscaping and playground equipment after the EPA cleanup was complete.

Over the course of the multi-year cleanup, EPA has supported several other activities aimed at boosting the community's resilience and vitality, including a Superfund Job Training Initiative program, youth environmental education, and community gardens. Cleanup has made way for new housing addressing the needs of vulnerable groups and expanding opportunities for people who work nearby. The cleanup effort has not displaced any residents and offers opportunities to support residential and community initiatives.

MACGILLIS & GIBBS CO./BELL LUMBER & POLE CO. FROM CONTAMINATED SITE TO ECONOMIC CATALYST

The 68-acre MacGillis & Gibbs Co./Bell Lumber & Pole Co. Superfund site is in New Brighton, Minnesota. The site consists of two adjoining properties. Wood-preserving facilities operated on both properties during most of the 20th century. Wood-preserving activities contaminated soil and groundwater. EPA added the site to the NPL in 1984.

From 1996 to 2002, EPA and the MPCA worked together to clean up the site. Cleanup activities included excavation and on-site treatment of contaminated soil, capping of contaminated soil, and off-site disposal of some heavily contaminated soil, underground storage tanks and vaults. Cleanup also included on-site groundwater extraction and treatment. With EPA oversight, MPCA continues to conduct operation and maintenance activities for the site.

For more than two decades, the city of New Brighton laid the groundwork necessary for redevelopment of the 25-acre MacGillis & Gibbs property. This effort was part of the city's plan to revitalize a historic road that was once a main route through the Twin Cities of Saint Paul and Minneapolis and attract new economic opportunities to the area. Around 10,000 people live within 1 mile of the site. In 1997, EPA worked with the city and MPCA to negotiate a Prospective Purchaser Agreement (PPA). The PPA resolved the city's liability concerns, paving the way for purchasing the property and moving forward with redevelopment plans.

In 1998, Donatelle, a plastics manufacturing company, opened a facility at the 25-acre property. In the following years, the city worked to acquire more site properties to enable the development of the 32-acre New Brighton Corporate Park III. Today, it includes manufacturing and distribution businesses as well as over 70,000 square feet of commercial office space, shops and restaurants, legal and medical services, a post office and an adjacent 120-unit condominium development.

Today, site businesses employ over 800 people, contributing over \$56 million in estimated annual employee income and generating over \$200 million in estimated annual sales. In 2021, site property parcels had a total value of over \$36 million and generated nearly \$1.2 million in annual property taxes.



Figure 16. A restaurant at New Brighton Corporate Park III at the MacGillis & Gibbs Co./Bell Lumber & Pole Co. site (Minnesota).

PETERS CARTRIDGE FACTORY

VIBRANT MIXED-USE DEVELOPMENT WITH HISTORIC CHARM

The 71-acre Peters Cartridge Factory Superfund site is in Kings Mill, Ohio. From 1887 to 1944, the Peters Cartridge facility made ordnance, shot shell and cartridge ammunition at the site. Investigations by Ohio EPA in the 1990s found copper, lead and mercury contamination. EPA finalized the plan for cleanup in 2009 and added the site to the NPL in 2012.

Cleanup activities began in 2015. They included the excavation of contaminated soil and sediment, replacement of shoreline sediment areas with clean fill, consolidation and capping of remaining contaminated soil and sediment, groundwater monitoring, and institutional controls. EPA completed the cleanup in 2017.

The site is next to the Little Miami River and includes a section of the Little Miami Scenic Trail and trailhead parking lot for the Little Miami River bike path. About 3,600 people live within 1 mile of the site. In 2014, a developer purchased part of the site with the goal of redeveloping the facility's historic buildings into 15,000 feet of commercial space and 130 residences. The plans also call for restoration and preservation of the historic exterior of the factory, a shot tower and a smokestack.

In 2018, EPA put an environmental covenant in place that clarifies necessary conditions for safe reuse of the property. EPA partially deleted the 14-acre Former Process Area of the site from the NPL in 2018. The Ohio EPA Voluntary Action Program oversaw the additional work to clean up site soil to residential standards in the area where housing development was planned. The developer worked closely with Warren County to dovetail the development with broader plans for rehabilitation of the surrounding area, which promises to yield economic growth, services and infrastructure to the community. The county has plans to build a new bridge in coming years to improve access to the area.

The first tenant, Cartridge Brewing Company, opened on site in October 2020. The brewery signed a 10-year lease for 10,000 square feet in the old factory. In its first year of operation, the brewery generated over \$250,000 in estimated sales. Today, the site also hosts the Peters Cartridge Factory Apartments. The 134-apartment community is ideally situated next to the Little Miami Scenic Trail and bike path, with easy access to the interstate and area businesses.



Figure 17. Aerial view of the Peter Cartridge Factory before redevelopment. Source: Peters Cartridge Factory Apartments, used with permission



Figure 18. The renovated Peters Cartridge Factory Apartments are located next to the Little Miami River Bike Path. Source: Peters Cartridge Factory Apartments, used with permission.

REDEVELOPMENT ON THE HORIZON IN REGION 5

ALLIED CHEMICAL & IRONTON COKE SOLAR PROJECT TO POWER GROUNDWATER TREATMENT

The 129-acre Allied Chemical & Ironton Coke Superfund site is next to the Ohio River and includes parts of Ice Creek in Ironton, Ohio. Site features include a former coke plant and five lagoons, a former tar plant, and a former sand and gravel pit used for disposal of tar plant waste and foundry sand. Historical operations contaminated groundwater, soil and sediment with hazardous materials. Cleanup included removing the coke plant, covering disposal areas, restoring wetlands in the lagoon area, removing contaminated soil, treating and monitoring groundwater, and limiting use and access at the site. In 2011 and 2012, EPA supported reuse planning activities to identify zones for economic development and areas not suitable for reuse at the site. In 2020, EPA deleted parts of the site from the NPL.



Figure 19. A solar array will power to the groundwater treatment system at the Allied Chemical & Ironton Coke site (Ohio).

Today, site businesses employ about 150 people, contributing nearly \$11 million in estimated annual income and generating \$25.7 million in estimated annual sales. Site property parcels had a total value of over \$5.4 million, generating more than \$56,000 in annual property taxes, according to the most recent data. Around one-fifth of people living within 1 mile of the site earned income below the federal poverty level in the previous year.

In August 2021, parties announced the installation of a 2.3-acre solar project at the former tar plant area of the site. The solar panels will supply 100% of the power needed to run the site's groundwater treatment plant, about 1.2 million kilowatt hours a year. Powering the treatment system with solar energy is expected to offset more than 800 tons of the plant's annual carbon emissions. EPA will provide oversight for the project's installation.

CHEM-DYNE

LOCALITY REPURPOSING SITE FOR COMMUNITY USE

In the 1970s, Chem-Dyne Corporation processed and stored chemical wastes at its facility in Hamilton, Ohio. The 21-acre property is located along Ford Hydraulic Canal, which flows into the Great Miami River. Chem-Dyne ended operations in 1980 and abandoned more than 30,000 drums of chemical waste and 300,000 gallons of bulk waste materials at the site. Residents reported fish kills in the Great Miami River and on-site fires in the late 1970s. Around one-fifth of people living within 1 mile of the site's boundary had incomes below the federal poverty level during the previous year.

With cleanup well underway, the city of Hamilton wanted to prevent the potential sale of the site property by tax default to a party unfamiliar with its history. When Butler County announced it would auction site parcels in 2020, the city saw purchasing the site as an opportunity to protect the long-term health and safety of area residents. City representatives met with EPA and Ohio EPA staff to discuss the potential for reuse of the site and whether taking ownership of the property would result in the city becoming liable for the contamination and cleanup. After the meeting, EPA issued comfort letters clarifying site restrictions and liabilities. Hamilton plans to use the land for an expansion of the adjacent LJ Smith Park for a parking lot. Institutional controls will document restrictions on future use. In early 2022, Hamilton City Council authorized the purchase of the site property.



Figure 20. Aerial view shows the Chem-Dyne site and surrounding land uses, including Hamilton's LJ Smith Park (Ohio). Map image is the intellectual property of Esri and is used herein under license. Copyright © 2022 Esri and its licensors. All rights reserved. Sources: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN and the GIS user community.

LAKE SANDY JO (M&M LANDFILL) LANDFILL REZONING PAVES WAY FOR NEW INDUSTRIAL PARK

The 50-acre Lake Sandy Jo (M&M Landfill) site is in Gary, Indiana. Within 1 mile of the site's boundary, 34% of people had incomes below the federal poverty level during the previous year, compared to the county's average of 19%. An unpermitted landfill operated at the site from 1971 to 1980. Waste, construction debris and drums were disposed of there. Landfilling operations contaminated soil, sediment and groundwater. EPA added the site to the NPL in 1983.

EPA's cleanup included adding a clean soil cover and perimeter fencing as well as drinking water line extensions for nearby homes. The Indiana Department of Environmental Management monitors groundwater and maintains the soil cover. EPA provides oversight. Institutional controls prohibit residential use and installation of groundwater wells. In May 2021, EPA deleted part of the site from the NPL. While groundwater and some adjacent properties remain on the NPL, the deletion has paved the way for redevelopment.



Figure 21. The former M&M Landfill area of the Lake Sandy Jo site is now available for redevelopment (Indiana).

The residential zoning of the site and institutional controls prohibiting residential use had left the site in limbo. The developer requested that the city rezone the land as a planned unit development. In February 2022, the Gary Planning and Development Committee reviewed and approved a developer's rezoning request for the site. The developer plans to construct a light industrial complex called the Gary Commercial Center on site, providing jobs for the surrounding area. The developer received a grant to incorporate ecosystem services elements into the redevelopment design and will be working with EPA to establish a recreational green space within the new development.

MCLOUTH STEEL CORP

CLEANUP AND COLLABORATION OPEN NEW PATHS FOR THE FUTURE

The former McLouth Steel facility in Trenton, Michigan, operated from around 1950 to 1995, when the company filed for bankruptcy. At the height of operations, the plant covered about 273 acres and was the one of the country's largest steel manufacturers. It employed thousands of people. Operations at the facility resulted in contamination of the northern and southern parts of the site with polychlorinated biphenyls (PCBs) and heavy metals. Around 6,000 people live within 1 mile of the site.

In 2021, owner MSC Land Company LLC (MSC) led a \$20 million cleanup on the southern part of the site. This initial phase of cleanup included demolition of dozens of structures, installation of a fence, cleanup of contaminated water and sludges in subsurface structures, investigation of other potential areas of contamination, and assessment of stormwater management options. EPA provided oversight for the cleanup under a settlement agreement between EPA, the U.S. Department of Justice, the Michigan Department of Environment, Great Lakes, and Energy, and MSC. The agreement provided the non-labile parties with clarity on cleanup responsibilities. The initial phase of cleanup represented a major step in support of the site's beneficial reuse, showing how collaboration can turn formerly contaminated properties into community assets. Today, a range of promising redevelopment possibilities are under consideration for the site.



Figure 22. Vacant building at the McLouth Steel Corp site (Michigan).

TORCH LAKE

REZONING TO SPUR ECONOMIC GROWTH

The 2,700-acre Torch Lake Superfund site is on Michigan's Keweenaw Peninsula, in the Torch Lake Area of Concern. Within 1 mile of the site's boundaries, 27% of people had an income level below the federal poverty level in the past 12 months compared to the county's average of 20%. From the 1890s to 1969, copper mining activities deposited mine wastes into surrounding soil and surface water, resulting in soil, surface water and groundwater contamination. EPA added the site to the NPL in 1986.

EPA's cleanup included cap construction, slag removal and habitat restoration. EPA deleted parts of the site from the NPL in 2002, 2004, 2012 and 2013 as cleanup goals were met. EPA's cleanup has aided in recreational and residential redevelopment across the site. A 25-acre part of the site known as Quincy Smelter is in Keweenaw National Historical Park and part of the Quincy Mining Company National Historic Landmark. Today, Quincy Smelter Association offers tours of the historic landmark, the best-preserved copper smelter in the country.



Figure 23. The capped Michigan Smelter area of the Torch Lake site was recently rezoned for commercial development (Michigan).

In February 2021, Houghton City Council approved a developer's request to rezone the Michigan Smelter part of the site from single-family residential to community business. The developers agreed to preserve 13 acres of wetland next to the site, which helped make the rezoning approval possible. The rezoning will allow developers to create space for new business opportunities, spurring economic growth in the area.

CONCLUSION

EPA works closely with its partners at Superfund sites across Region 5 to make sure sites can be reused safely or remain in continued use during and after cleanup. EPA also works with businesses and organizations at Superfund sites throughout the cleanup process to make sure they can remain open.

The businesses and organizations at these sites provide jobs and income for communities and generate local and state taxes. Cleanup and redevelopment also helps stabilize and boost property values. There are 139 NPL sites and 23 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. EPA remains committed to working with all stakeholders to support Superfund redevelopment opportunities in Region 5.

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

Across Region 5, Superfund sites are now home to major commercial and industrial facilities, mid-size developments and small businesses providing services to surrounding communities. EPA is committed to working with all stakeholders to continue supporting the restoration and renewal of these sites as long-term assets.

EPA Superfund Redevelopment Resources

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

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

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

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



Figure 24. Flag display at Waukegan Harbor at the North Shore Gas South Plant site (Illinois).

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STATE REDEVELOPMENT PROFILES





ILLINOIS REDEVELOPMENT PROFILE

EPA partners with the Illinois Environmental Protection Agency to oversee the investigation and cleanup of Superfund sites in Illinois. Illinois has 32 Superfund sites with either new uses in place or uses remaining in place since before cleanup. The sections below present economic data, property values and tax data for sites in reuse or continued use in Illinois.

Businesses and Jobs

EPA has collected economic data for 76 businesses and organizations operating at 18 sites in reuse or continued use in Illinois.

Table 3. Detailed Site and Business Information for Sites in Reuse and Continued Use in Illinois (2021)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales ^c	Total Employees	Total Annual Employee Income
<i>In Reuse</i>	11	6	22	\$117 million	420	\$18 million
<i>In Continued Use</i>	2	1	1	-	-	-
<i>In Reuse and in Continued Use</i>	19	11	53	\$464 million	1,021	\$65 million
Totals	32	18	76	\$581 million	1,441	\$83 million

^a Four 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.

^c Annual sales figures are not available (or applicable) for every business.

Property Values and Property Tax Revenues

EPA has collected property value data for 10 Superfund sites in reuse or continued use in Illinois. These sites span 2,262 property parcels and 1,637 acres.

Table 4. Property Value and Tax Information for Sites in Reuse and Continued Use in Illinois^a

Total Land Value (10 sites)	Total Improvement Value (10 sites)	Total Property Value (10 sites)	Total Annual Property Taxes (10 sites)
\$38 million	\$106 million	\$144 million	\$13 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 2020 to 2021 for all data collected.



Figure 25. Cranes along the Waukegan Marina support industrial businesses at the Outboard Marine Corp. site (Illinois).

Did You Know?

Ongoing cleanup at the Outboard Marine Corp. Superfund site in Waukegan, Illinois, has enabled a variety of continued uses at the site. The harbor area supports industrial and recreational uses, with recreational boat storage and repair businesses and a marina for commercial and recreational fishing and boat access to the lake. Beachfront areas on site provide critical habitat for the piping plover, a federally protected endangered species, and support several protected plant species.



INDIANA REDEVELOPMENT PROFILE

EPA partners with the Indiana Department of Environmental Management to oversee the investigation and cleanup of Superfund sites in Indiana. Indiana has 24 Superfund sites with either new uses in place or uses remaining in place since before cleanup. The sections below present economic data, property values and tax data for sites in reuse or continued use in Indiana.

Businesses and Jobs

EPA has collected economic data for 62 businesses and organizations operating at 13 sites in reuse or continued use in Indiana.

Table 5. Detailed Site and Business Information for Sites in Reuse and Continued Use in Indiana (2021)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales ^c	Total Employees	Total Annual Employee Income
<i>In Reuse</i>	11	6	18	\$53 million	341	\$11 million
<i>In Continued Use</i>	6	2	2	\$9 million	100	\$7 million
<i>In Reuse and in Continued Use</i>	7	5	42	\$93 million	678	\$39 million
Totals	24	13	62	\$155 million	1,119	\$57 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.

^c Annual sales figures are not available (or applicable) for every business.

Property Values and Property Tax Revenues

EPA has collected property value data for 10 Superfund sites in reuse or continued use in Indiana. These sites span 60 property parcels and 433 acres.

Table 6. Property Value and Tax Information for Sites in Reuse and Continued Use in Indiana^a

Total Land Value (10 sites)	Total Improvement Value (10 sites)	Total Property Value (10 sites)	Total Annual Property Taxes (10 sites)
\$7 million	\$16 million	\$23 million	\$685,000

^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 2019 to 2021 for all data collected.



Figure 26. A Lowe's home improvement store is one of several businesses at the Prestolite Battery Division site (Indiana).

Did You Know?

Battery-making operations contaminated air, soil and surface water at the Prestolite Battery Division Superfund site in Vincennes, Indiana. In 1996, EPA entered into a PPA with a local commercial real estate developer. Businesses began to open in 2001. Today, after cleanup, a home improvement center, several restaurants, a bank, a hotel and a convenience store operate on site. These businesses employ 233 people, providing more than \$6.3 million in estimated annual employee income and generating more than \$31.3 million in estimated annual sales.



MICHIGAN REDEVELOPMENT PROFILE

EPA partners with the Michigan Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Michigan. Michigan has 34 Superfund sites with either new uses in place or uses remaining in place since before cleanup. The sections below present economic data, property values and tax data for sites in reuse or continued use in Michigan.

Businesses and Jobs

EPA has collected economic data for 111 businesses and organizations operating at 26 sites in reuse or continued use in Michigan.

Table 7. Detailed Site and Business Information for Sites in Reuse and Continued Use in Michigan (2021)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales ^c	Total Employees	Total Annual Employee Income
In Reuse	13	11	23	\$417 million	1,384	\$82 million
In Continued Use	10	6	6	\$234 million	614	\$57 million
In Reuse and in Continued Use	11	9	82	\$112 million	787	\$41 million
Totals	34	26	111	\$763 million	\$2,785	\$180 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.

^c Annual sales figures are not available (or applicable) for every business.

Property Values and Property Tax Revenues

EPA has collected property value data for 18 Superfund sites in reuse or continued use in Michigan. These sites span 336 property parcels and 650 acres.

Table 8. Property Value and Tax Information for Sites in Reuse and Continued Use in Michigan^a

Total Land Value (5 sites)	Total Improvement Value (5 sites)	Total Property Value (18 sites)	Total Annual Property Taxes (18 sites)
\$322,000	\$154,000	\$35 million	\$2 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 2020 to 2022 for all data collected.



Figure 27. The front entrance of Kentwood Branch Library, located at the Kentwood Landfill Superfund site (Michigan).

Did You Know?

Past operations at the Kentwood Landfill in Kentwood, Michigan, led to soil and groundwater contamination at the site. Cleanup finished in 1995. The city and county continue to coordinate with EPA on site reuse opportunities. In 2009, EPA approved a modification of a restrictive covenant to allow the construction of a 46,000-square-foot public library on part of the site. In 2011, the city worked with EPA to update land use restrictions to allow for on-site storage. Today, the site hosts four businesses that provide over \$600,000 in estimated annual employee income.



MINNESOTA REDEVELOPMENT PROFILE

EPA partners with MPCA to oversee the investigation and cleanup of Superfund sites in Minnesota. Minnesota has 34 Superfund sites with either new uses in place or uses remaining in place since before cleanup. The sections below present economic data, property values and tax data for sites in reuse or continued use in Minnesota.

Businesses and Jobs

EPA has collected economic data for 169 businesses and organizations operating at 24 sites in reuse or continued use in Minnesota.

Table 9. Detailed Site and Business Information for Sites in Reuse and Continued Use in Minnesota (2021)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales ^c	Total Employees	Total Annual Employee Income
In Reuse	16	11	95	\$1.4 billion	4,735	\$440 million
In Continued Use	5	2	2	\$1.2 billion	1,375	\$180 million
In Reuse and in Continued Use	13	11	72	\$422 million	1,917	\$145 million
Totals	34	24	169	\$3 billion	8,027	\$765 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.

^c Annual sales figures are not available (or applicable) for every business.

Property Values and Property Tax Revenues

EPA has collected property value data for 25 Superfund sites in reuse or continued use in Minnesota. These sites span 643 property parcels and 9,749 acres.

Table 10. Property Value and Tax Information for Sites in Reuse and Continued Use in Minnesota^a

Total Land Value (23 sites)	Total Improvement Value (23 sites)	Total Property Value (25 sites)	Total Annual Property Taxes (25 sites)
\$176 million	\$308 million	\$507 million	\$11 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 2020 to 2022 for all data collected.



Figure 28. The oil refinery at the Koch Refining Co./N-Ren Corp. site has been in operation since the 1950s (Minnesota).

Did You Know?

The Koch Refining Co./N-Ren Corp. Superfund site has been an active oil refinery in Rosemount, Minnesota since 1955. Spills in the storage tank area resulted in groundwater contamination. Further studies classified the site as a petroleum release site, so EPA transferred site responsibility to the Minnesota Tanks and Spills Program, where it became a state-lead site. Now known as Flint Hill Resources, the refinery employs around 1,200 people and generates \$1.1 billion in estimated annual sales.



OHIO REDEVELOPMENT PROFILE

EPA partners with the Ohio Environmental Protection Agency to oversee the investigation and cleanup of Superfund sites in Ohio. Ohio has 22 Superfund sites with either new uses in place or uses remaining in place since before cleanup. The sections below present economic data, property values and tax data for sites in reuse or continued use in Ohio.

Businesses and Jobs

EPA has collected economic data for 64 businesses and organizations operating at 11 sites in reuse or continued use in Ohio.

Table 11. Detailed Site and Business Information for Sites in Reuse and Continued Use in Ohio (2021)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales ^c	Total Employees	Total Annual Employee Income
In Reuse	11	4	40	\$230 million	923	\$64 million
In Continued Use	1	0	-	-	-	-
In Reuse and in Continued Use	10	7	24	\$880 million	2,324	\$141 million
Totals	22	11	64	\$1.1 billion	3,247	\$205 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.

^c Annual sales figures are not available (or applicable) for every business.

Property Values and Property Tax Revenues

EPA has collected property value data for 11 Superfund sites in reuse or continued use in Ohio. These sites span 189 property parcels and 1,443 acres.

Table 12. Property Value and Tax Information for Sites in Reuse and Continued Use in Ohio^a

Total Land Value (11 sites)	Total Improvement Value (11 sites)	Total Property Value (11 sites)	Total Annual Property Taxes (11 sites)
\$17 million	\$63 million	\$80 million	\$1 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 2021 to 2022 for all data collected.



Figure 29. Signage for The Point, the commercial and industrial park at the South Point Plant site (Ohio).

Did You Know?

Through collaboration with the Lawrence Economic Development Corporation and local governments, EPA supported the redevelopment of the South Point Plant Superfund site in South Point, Ohio. After cleanup, The Point business park opened on site in 2001. It is now a thriving commercial-industrial park that serves as a local and regional economic mainstay. Site businesses employ more than 700 people, providing nearly \$50 million in estimated annual employee income and generating \$204.3 million in estimated annual sales.



WISCONSIN REDEVELOPMENT PROFILE

EPA partners with the Wisconsin Department of Natural Resources to oversee the investigation and cleanup of Superfund sites in Wisconsin. Wisconsin has 16 Superfund sites with either new uses in place or uses remaining in place since before cleanup. The sections below present economic data, property values and tax data for sites in reuse or continued use in Wisconsin.

Businesses and Jobs

EPA has collected economic data for 19 businesses and organizations operating at seven sites in reuse or continued use in Wisconsin.

Table 13. Detailed Site and Business Information for Sites in Reuse and Continued Use in Wisconsin (2021)

	Sites	Sites with Businesses	Businesses ^a	Total Annual Sales ^b	Total Employees	Total Annual Employee Income
<i>In Reuse</i>	6	1	4	\$2 million	23	\$668,000
<i>In Continued Use</i>	4	2	2	\$1 million	18	\$2 million
<i>In Reuse and in Continued Use</i>	6	4	13	\$176 million	962	\$43 million
Totals	16	7	19	\$179 million	1,003	\$46 million

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

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

Property Values and Property Tax Revenues

EPA has collected property value data for eight Superfund sites in reuse or continued use in Wisconsin. These sites span 30 property parcels and 268 acres.

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 (8 sites)	Total Annual Property Taxes (8 sites)
\$2 million	\$5 million	\$7 million	\$125,000

^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 2020 to 2021 for all data collected.



Figure 30. Grass cover over a former sewage pit at the 40-acre Northern Engraving Co. site (Wisconsin).

Did You Know?

Improper wastewater treatment and disposal practices contaminated soil, surface water and groundwater at the Northern Engraving Co. Superfund site in Sparta, Wisconsin. Throughout cleanup, the metal and plastics manufacturer continued to operate on the 40-acre site alongside an architectural product producer. Today, the two businesses employ 310 people, providing over \$16 million in estimated annual employee income and generating over \$39 million in estimated annual sales.

SOURCES

REUSE INFORMATION SOURCES

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

EPA Resources

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Photos

Images of Peters Cartridge used with permission of Peters Cartridge Factory Apartments.

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) (www.dnb.com) database. EPA also gathers information on businesses and corporations from D&B. D&B maintains a database of over 330 million businesses worldwide.

When Hoovers/D&B research was unable to identify employment and sales volume for on-site businesses, EPA used the Reference Solutions database (www.thereferencegroup.com). In cases where Reference Solutions did not include employment and sales volume for on-site businesses, EPA used the Manta database (www.manta.com). The databases include data reported by businesses. Accordingly, some reported values might be underestimates or overestimates. In some instances, business and employment information came 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.

EPA obtained wage and income information from the U.S. Bureau of Labor Statistics (BLS). Part of the U.S. Department of Labor, the BLS is the principal federal agency responsible for measuring labor market activity, working conditions and price changes in the economy. All BLS data meet high standards of accuracy, statistical quality and impartiality.

EPA used the BLS Quarterly Census of Employment and Wages database to obtain average weekly wage data for site businesses. Average weekly wage data were identified by matching the North American Industry Classification System (NAICS) codes for each type of business with weekly wage data for corresponding businesses in site counties. If weekly wage data were not available at the county level, EPA sought wage data by state or national level, respectively. In cases where wage data were not available for the six-digit NAICS code, EPA used higher-level (less-detailed) NAICS codes to obtain the wage data.

To estimate the annual income earned from jobs at site businesses, EPA multiplied 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 2021. Estimated annual employment income was calculated using 2021 jobs data and BLS average weekly wage data for those jobs from 2020 (the latest available wage data at the time of this profile). 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). All sales and income figures presented have been rounded for the convenience of the reader. Throughout this report, sales and annual employee income may not sum exactly to the totals presented due to rounding.

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 typically varied from 2019 to 2022 where date information was provided. Throughout this report, property and tax values may not sum exactly to the totals presented due to rounding.

Back Cover page photos:

*Boise Cascade/Onan Corp./Medtronics, Inc. site (Minnesota), DuPage County Landfill/Blackwell Forest Preserve (Illinois),
Waite Park Wells (Minnesota), Michigan Disposal Service (Cork Street Landfill) (Michigan), South Point Plant (Ohio)*

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