PUTTING SITES TO WORK

How Superfund Redevelopment in Region 2 Is Making a Difference in Communities

2021 DATA

REGION 2 ECONOMIC PROFILE

EPA

Cover page photos:

Chemical Insecticide Corp. (New Jersey), PJP Landfill (New Jersey), Li Tungsten Corp. (New York), Universal Oil Products (Chemical Division) (New Jersey), Syosset Landfill site (New York), Marathon Battery Corp. (New York)

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Figure 1. The Cold Spring Pier Pavilion at the Marathon Battery Corp. site (New York)

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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 2 office serves New Jersey, New York, Puerto Rico, the U.S. Virgin Islands and eight tribal nations. New York and New Jersey are home to nearly 10% of the population of the United States. New York City and neighboring Newark, New Jersey, are the core of the largest metropolitan area in the country. As demand for land intensifies further, many developers and local leaders are turning to older industrial sites, including Superfund sites, to accommodate more growth and development. The Superfund program in EPA Region 2 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 2 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 2 works closely with state and local officials to remove barriers that have kept many Superfund sites vacant or underused. EPA Region 2 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]

Region 2 Sites in Reuse and Continued Use: Business and Job Highlights

Businesses:	*692*
Total Annual Sales:	*$3.6 billion*
Number of People Employed:	*16,030*
Total Annual Employee Income:	*$962 million*

Figure 2. One of the many retail businesses at the American Cyanamid Co. Superfund site (New Jersey).

Superfund sites across Region 2 are now industrial facilities, shopping centers, medical facilities and neighborhoods. Many sites host large-scale retail centers and department stores. Other sites are now home to natural areas, train lines and recreation facilities. On-site businesses and organizations at current and former Region 2 Superfund sites provide an estimated 16,030 jobs and contribute an estimated $962 million in annual employment income. Sites in reuse and continued use in Region 2 generate $27.4 million in annual property tax revenues for local governments.[1]

1 Business and property value tax figures represent only a subset of the beneficial effects of sites in reuse or continued use in Region 2. There are 71 Superfund sites in reuse or continued use in Region 2 for which EPA does not have business data, including 11 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 77 sites in reuse or continued use in Region 2 for which EPA does not have property value or tax data, including 10 NPL federal facilities.

This profile looks at how redevelopment activities at Superfund sites make a difference in communities across Region 2. 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 2.

Figure 3. Left: Museum exhibit at the Roebling Steel Co. site (New Jersey). Right: Riverfront walkway at the PJP Landfill site (New Jersey).

SUPPORT FOR SUPERFUND REDEVELOPMENT

EPA Region 2 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 2 partners with stakeholders to encourage redevelopment opportunities at Superfund sites. Region 2 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 2 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 2 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 returning Superfund sites to productive 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.

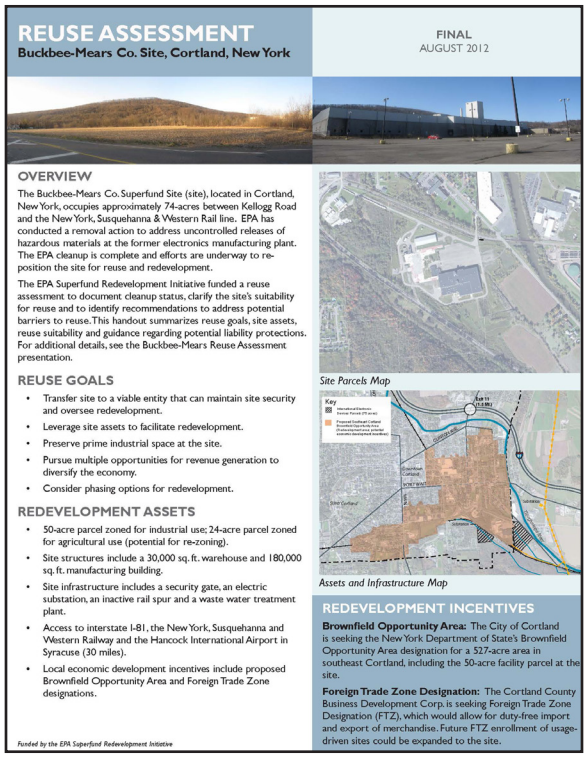

REUSE ASSESSMENT
Buckbee-Mears Co. Site, Cortland, New York
FINAL
AUGUST 2012
OVERVIEW
The Buckbee-Mears Co. Superfund Site (site), located in Cortland, New York, occupies approximately 74-acres between Kellogg Road and the New York, Susquehanna & Western Rail line. EPA has conducted a removal action to address uncontrolled releases of hazardous materials at the former electronics manufacturing plant. The EPA cleanup is complete and efforts are underway to re-position the site for reuse and redevelopment.
The EPA Superfund Redevelopment Initiative funded a reuse assessment to document cleanup status, clarify the site's suitability for reuse and to identify recommendations to address potential barriers to reuse. This handout summarizes reuse goals, site assets, reuse suitability and guidance regarding potential liability protections. For additional details, see the Buckbee-Mears Reuse Assessment presentation.
REUSE GOALS
- Transfer site to a viable entity that can maintain site security and oversee redevelopment.
- Leverage site assets to facilitate redevelopment.
- Preserve prime industrial space at the site.
- Pursue multiple opportunities for revenue generation to diversify the economy.
- Consider phasing options for redevelopment.
REDEVELOPMENT ASSETS
- 50-acre parcel zoned for industrial use; 24-acre parcel zoned for agricultural use (potential for re-zoning).
- Site structures include a 30,000 sq. ft. warehouse and 180,000 sq. ft. manufacturing building.
- Site infrastructure includes a security gate, an electric substation, an inactive rail spur and a waste water treatment plant.
- Access to interstate I-81, the New York, Susquehanna and Western Railway and the Hancock International Airport in Syracuse (30 miles).
- Local economic development incentives include proposed Brownfield Opportunity Area and Foreign Trade Zone designations.
Funded by the EPA Superfund Redevelopment Initiative
Site Parcels Map
Assets and Infrastructure Map
REDEVELOPMENT INCENTIVES
Brownfield Opportunity Area: The City of Cortland is seeking the New York Department of State's Brownfield Opportunity Area designation for a 527-acre area in southeast Cortland, including the 50-acre facility parcel at the site.
Foreign Trade Zone Designation: The Cortland County Business Development Corp. is seeking Foreign Trade Zone Designation (FTZ), which would allow for duty-free import and export of merchandise. Future FTZ enrollment of usage-driven sites could be expanded to the site.

Figure 4. Superfund Redevelopment Program reuse assessment for the Buckbee-Mears co., site (New York).

These efforts have built expertise across Region 2, making it easier to consider future use of Superfund sites before 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 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.

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 cleanup 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 297 sites in Region 2 on the NPL.

Whenever possible, EPA seeks to integrate redevelopment priorities into site cleanup plans. In Region 2, EPA currently tracks 143 NPL sites and three 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 2.

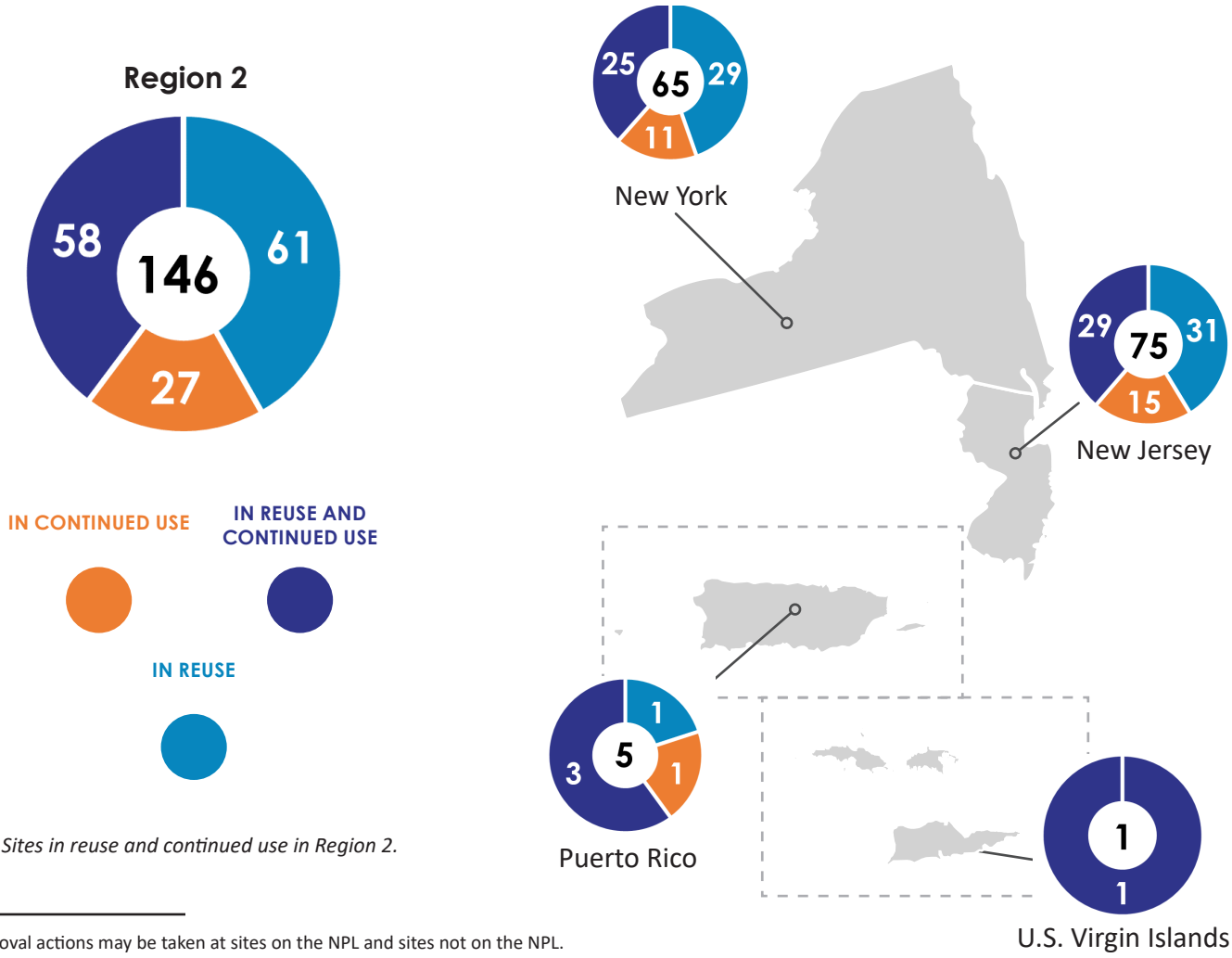


Figure 5. Sites in reuse and continued use in Region 2.

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

Figure 6. Left: The Pascack Valley Line in the foreground and the Meadowlands rail spur in the background; and right: Businesses in the shopping center, both at the Universal Oil Products (Chemical Division) site (New Jersey).

Sites in Reuse and Continued Use: A Closer Look

Reuse Type	Description	Region 2 Example
In Reuse	*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.*	*Forest Glen Mobile Home Subdivision — A mobile home community built above an illegal dump site required cleanup and permanent relocation of residents. A warehouse distribution facility now operates on site.*
In Continued Use	*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.*	*Hopewell Precision — Initial cleanup activities at this 5.7-acre site enabled the continued industrial use of the property.*
In Reuse and Continued Use	*Part of a site is in continued use and part of the site is in reuse.*	*Universal Oil Products (Chemical Division) — Cleanup efforts enabled continued ecological use of wetlands, streams and ponds, and set the stage for redevelopment, including a shopping center and a transit rail line that crosses the site.*

BENEFICIAL EFFECTS OF SUPERFUND SITE REDEVELOPMENT IN REGION 2

Businesses and Jobs

EPA has collected economic data for 692 businesses, government agencies and civic organizations operating on 72 NPL sites and three non-NPL sites in reuse and continued use in Region 2.[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 2 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 $3.6 billion in estimated annual sales and employ about 16,030 people, earning an estimated $962 million in annual employment income. This income injects money into local economies and generates revenue through personal state income taxes. These businesses also help local economies through direct purchases of local supplies and services. On-site businesses that produce retail sales and services also generate tax revenues through the collection of sales taxes, which support state and local governments. Table 1 provides more detailed information.[4]

Table 1. Site and Business Information for Region 2 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]
In Reuse[f]	61	36	88	$821 million	3,409	$227 million
In Continued Use[g]	27	5	6	$85 million	278	$29 million
In Reuse and in Continued Use	57	33	596	$2.7 billion	12,321	$705 million
Totals	**146**	**75**	**692**	**$3.6 billion**	**16,030**	**$962 million**

[a] Eleven 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 "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 "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 Maywood Chemical Co. Superfund site in New Jersey are now valued at over $214 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.

Region 2 Sites in Reuse and Continued Use: Property Value and Tax Highlights

Total Property Value: *$1.6 billion*

Total Annual Property Taxes: *$27.4 million*

Figure 7. A hotel at the American Cyanamid Co. site (New Jersey).

EPA has collected property value data and property tax data for 69 and 64 Superfund sites in reuse and continued use in Region 2, respectively.[5] These sites span 2,272 property parcels and 8,256 acres. They have a total property value of $1.6 billion. The average total property value per acre is $197,000.

Land and improvement property value information is available for 62 sites. These properties have a total land value of $553 million and a total improvement value of $872 million.[6]

Property tax information is available for 64 sites. The properties generate a combined $27.4 million in local property taxes annually.

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

Total Land Value (62 sites)[b]	Total Improvement Value (62 sites)	Total Property Value (69 sites)	Total Property Value per Acre (69 sites)[c]	Total Annual Property Taxes (64 sites)
$553 million	$872 million	$1.6 billion	$197,000	$27.4 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 2020 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] Based on total property value amount of $1.6 billion divided by total acreage of 8,256. Calculation performed with unrounded total property value.

5 There are 77 additional sites in reuse or continued use in Region 2 for which EPA does not have property value or tax data, including 10 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 2 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.

Figure 8. A view of Betty Park at the Lipari Landfill site (New Jersey).

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 2 provide recreational and ecological benefits.

7 The Outdoor Recreation Economy. Outdoor Industry Association. Available at outdoorindustry.org/wp-content/uploads/2017/04/OIA_RecEconomy_FINAL_Single.pdf.

FRIED INDUSTRIES

NEW PARK WITH TRAILS AROUND WETLANDS AND MARSHES

The 26-acre Fried Industries Superfund site is in East Brunswick Township, near the border of the borough of Milltown in Middlesex County, New Jersey. Investigations by EPA found that waste handling and disposal practices during 25 years of manufacturing activities on site contaminated soil and groundwater with hazardous waste and arsenic. EPA added the site to the NPL in 1986. It includes a pond, a marsh area and several separate wetlands areas. About 48,000 people live in the township of East Brunswick. About 7,000 people live in the borough of Milltown.

EPA cleanup included removal and off-site treatment and disposal of about 7,000 gallons of process and septic wastes, removal of above ground drums and containers, and connection of homes with residential wells to the public water supply. Cleanup also involved the removal, treatment and disposal of contaminated surface soil and groundwater. In 2021, the Township of East Brunswick opened a new park on site. Beaver Dam Park features pedestrian walkways and enables access to pristine natural areas. Walkways in the park enable visitors to explore wetlands and marshes. The Township constructed the first phase of the walkway in Summer 2021 and will complete the second phase once all soil removal and restoration work is complete.

Figure 9. Aerial map of trails at the Fried Industries site (New Jersey). Image used with permission of East Brunswick Parks & Recreation.

Figure 10. A view of a creek seen from a walking trail at the Fried Industries site (New Jersey).

LIPARI LANDFILL

Aligning Cleanup and Community Reuse Priorities

The 16-acre Lipari Landfill Superfund site is located in the borough of Pitman in Gloucester County, New Jersey. The landfill operated from 1958 to 1971. It accepted an estimated 12,000 cubic yards of solid wastes and 2.9 million gallons of liquid wastes. At least one fire and two explosions took place during landfill operations. Waste from the landfill contaminated surface water, groundwater, sediment and soil. The state closed the landfill after health complaints from residents and the detection of landfill leachate in local surface water. EPA added the site to the NPL in 1983.

In the 1970s, studies found that contamination from the landfill had migrated downstream and compromised the safety of local recreation resources, including Alcyon Park and Alcyon Lake, a historic regional recreation amenity established in 1892. The borough closed the park and lake in 1981 to prevent public exposure to contamination. Cleanup focused on controlling the source of contamination, cleaning up groundwater and treating leachate from the landfill, and cleaning up downstream properties in the drainage basin affected by landfill contaminants.

Close collaboration among site stakeholders helped align the cleanup process with local reuse priorities, including returning the parklands and lake to recreational use. After cleanup, Alcyon Lake reopened to boaters in 1995. An agreement allowed EPA to use a borough property as a staging area to expedite cleanup work, significantly reducing cleanup costs. Today, Alcyon Park hosts athletic fields, picnic spaces, and bike and walking paths. Ecological habitat draws outdoors enthusiasts to the area to catch a glimpse of migratory birds and butterflies, deer, foxes and wildflowers. Alcyon Lake hosts anglers, recreational boaters and events for local youth. About 6,400 people live within a mile of the site.

Figure 11. Ecological restoration and revitalization efforts at the Lipari Landfill site have included a no-mow wildflower meadow, riparian border restoration and erosion prevention using natural planting around Alcyon Lake, and bluebird and bat boxes in Alcyon Park (New Jersey).

Why Are Wetlands Economically Important?

Superfund site reuse can support wetland habitat, as seen at several sites in Region 2. Cleanup of the Burnt Fly Bog Superfund site in New Jersey restored wetlands that provide habitat for diverse wildlife. At the Onondaga Lake Superfund site in Syracuse, New York, about 1.1 million native plants have been planted as part of the restoration of 90 acres of wetlands. More than 250 wildlife species are now found on site, including more than 120 bird species. After cleanup and restoration of 4.5 acres of wetlands at the Chemsol, Inc. Superfund site in Piscataway, New Jersey, the area now provides green space and serves as an environmental resource.

Figure 12. View of riparian wetlands along the Onondaga Lake site (New York).

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 in 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.

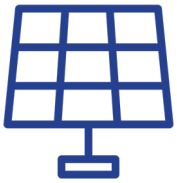
These benefits also have economic value. Replacing wetlands' water treatment services with manmade facilities, for example, would be expensive. Worldwide, wetlands provide an estimated $14.9 trillion benefit in ecosystem services. To learn more, see:

- *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.

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 alternative energy projects at 20 Superfund sites in Region 2. These projects have an installed capacity of about 232 megawatts. Two of these projects offset on-site energy demands of cleanup efforts or directly power site-related cleanup activities.



19
Solar Projects

1
Geothermal Facility

Alternative energy projects tracked in **Region 2** generate an estimated **302,993 megawatt hours** each year.[8] This is equivalent to…

214,726 metric tons of carbon dioxide.

The greenhouse gas emissions of **46,267** gasoline-powered passenger vehicles driven for one year.

The carbon dioxide emissions from **27,048** homes' energy use for one year.

8 Equivalencies were calculated using power production. 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 2, 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.

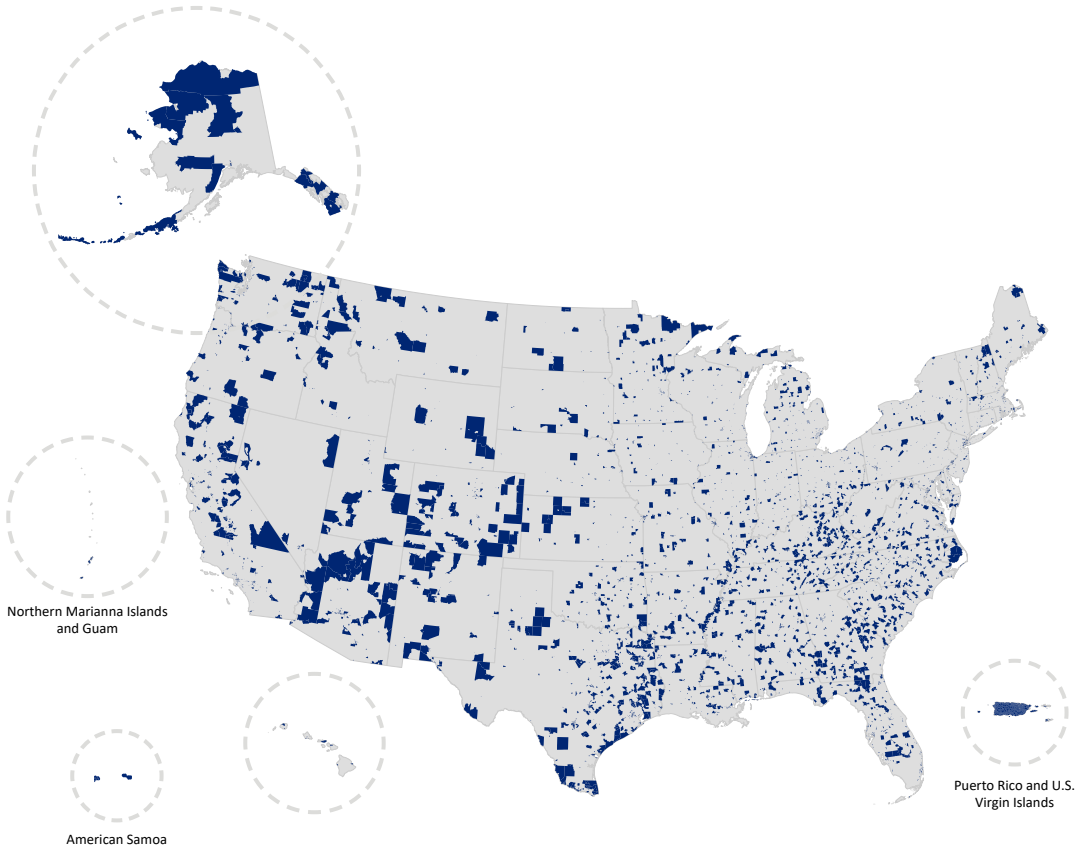


Figure 13. About 8,756 Opportunity Zones were established in all 50 states, the District of Columbia and the five U.S. territories.

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 E*J 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 11 sites in Region 2.

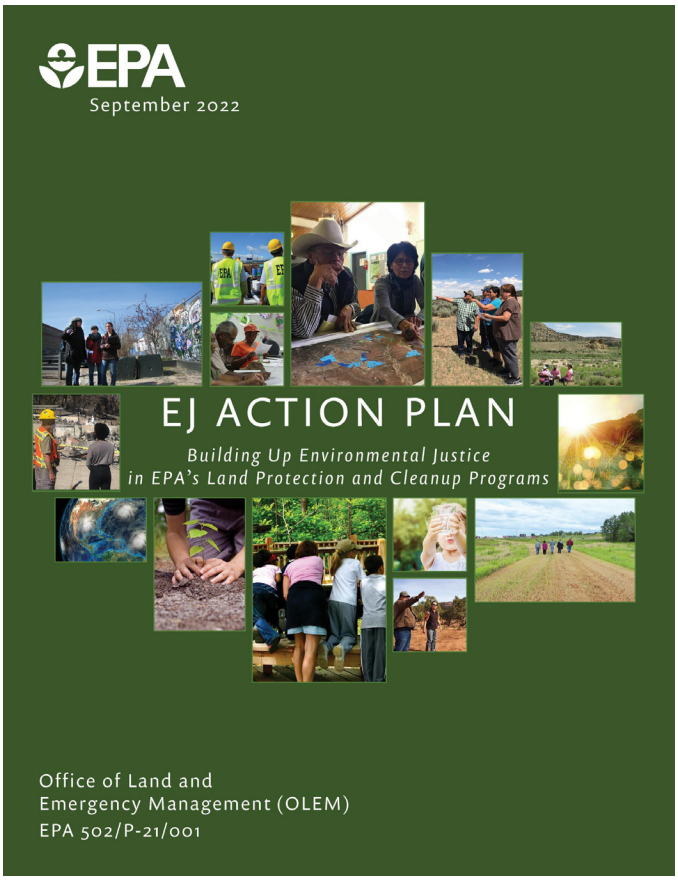


Figure 14: EPA's EJ Action Plan aims to address cleanup issues in overburdened communities across the country.

REDEVELOPMENT IN ACTION

CIBA-GEIGY CORP.

Outdoor Classroom and Large Solar Project

The 1,250-acre Ciba-Geigy Corp. Superfund site is in Toms River, New Jersey. From 1952 to 1996, Ciba-Geigy made dyes, pigments, resins and epoxy additives on site. Improper chemical waste disposal practices at the facility resulted in soil and groundwater contamination. Investigations by the state and EPA found leaking drums of waste and carcinogenic compounds on the site. EPA added the site to the NPL in 1983. Cleanup included disposal of over 47,000 drums off site and groundwater treatment, which is ongoing. Bioremediation treated site soil. This process uses natural microorganisms to digest contaminants and break them down into non-hazardous components. In 2009, BASF became owner of the property through their acquisition of Ciba-Geigy. In coordination with BASF, local environmental science classes conduct wildlife surveys and learn about the site's history, contamination and cleanup at an open-air classroom on site.

Figure 15: Aerial view of the Toms River Solar Project at the Ciba-Geigy Corp. site (New Jersey).

In 2019, BASF leased 120 acres of the site to EDF Renewables for construction of three separate solar array systems. EDF, with the help of over 100 local union workers, then constructed a 27.4 megawatt DC grid-tied system and a 1.5 megawatt DC net-metered system. The netmetered system provides nearly 100% of the electricity required to power the groundwater extraction and treatment system. These two systems became operational in July 2021. Construction has already begun on the third system, a 5 megawatt DC solar project that will provide energy to low- and moderate-income households. Over 15,000 people live within a mile of the site.

The project is helping BASF achieve its sustainability goals by supporting a reduction in greenhouse gas emissions and also expanding the site's native grassland habitat for pollinators and migratory birds. The solar array design also sought to improve habitat conditions for the threatened grasshopper sparrow and to protect the northern pine snake.

FACET ENTERPRISES

Continued Residential Use and Manufacturing

The 31-acre Facet Enterprises, Inc. Superfund site is located in the village of Elmira Heights in Chemung County, New York. Past site operations included bicycle and car engine part manufacturing. The facility also made military support parts during World War II. Disposal of heavy metal sludge, spent solvent and oil at the facility resulted in contaminated soil, sediment and groundwater with volatile organic compounds, inorganics and petroleum. EPA added the site to the NPL in 1983.

Cleanup has included placing contaminated soil and sediment under a vegetated cap, groundwater treatment and land use restrictions. EPA continues to conduct vapor intrusion investigations at homes and other buildings in the study area. When elevated levels of volatile organic compounds are detected, vapor intrusion abatement systems to improve indoor air quality will be installed to address risk. EPA has tested over 278 properties so far, 64 of which required abatement systems installed by EPA. Elmira Heights is home to more than 1,500 people.

A manufacturer operates in part of the former Facet Enterprises facility. It generates $17 million in estimated annual sales and over $3 million in estimated annual employee income. The company makes electronic fuel pumps for gas and diesel engines for vehicles, agricultural and construction equipment, generator sets, heaters, military equipment, lawn and garden equipment, truck refrigeration, and marine systems. In 2021, site property parcels had a total value of over $1.2 million, generating over $47,000 in annual property taxes.

Figure 16: Automotive electronic fuel pumps are made at the Facet Enterprises site (New York).

LI TUNGSTEN CORP.

From Processing Plant to Waterfront Esplanade

The Li Tungsten Corp. Superfund site is in Glen Cove, New York. The site includes Glen Cove Creek, the 26-acre former Li Tungsten facility, and portions of the Captain's Cove property and adjacent areas where Li Tungsten disposed of radiologically and/or metals-contaminated ore residuals. The processing of tungsten and other metals began at the Li Tungsten facility in 1942 and ended in 1985. Facility operations contaminated site soil, groundwater, sediment and surface water. From the 1950s to the late 1970s, the Captain's Cove property was a dump site for the municipal and industrial wastes, including ore residuals from the Li Tungsten facility. EPA added the site to the NPL in 1992.

Early cleanup actions included removal and disposal of laboratory reagents and drummed chemicals, radiological hazards, tanks, asbestos and hazardous chemicals at the facility. Long-term cleanup included excavation and off-site disposal of contaminated ore residuals, soil and sediment, demolition of the Li Tungsten facility, and land use restrictions. It also included decommissioning of an industrial well, collection and off-site disposal of contaminated surface water, and long-term groundwater monitoring to assess recovery of the aquifer after implementation of the soil remedy. EPA modified the original cleanup plan to ensure most of the site could support future restricted residential use and help the city meet its future land use goals to transform the area. Cleanup of Glen Cove Creek involved constructing a dewatering facility that separated radioactive slag and dredge materials for off-site disposal. Cleanup finished in 2008. Long-term groundwater monitoring is ongoing.

Figure 17: Top: The Glen Cove Ferry Terminal office at the Li Tungsten Corp. site (New York). Bottom: The esplanade walkways along the Glen Cove Ferry Terminal dock at the Li Tungsten Corp. site (New York).

Thanks to the carefully planned cleanup, the city was able to rezone the former facility property for restricted residential use. Now, development of a smart growth, mixed-use community called Garvies Point is underway at the site. The master plan calls for the construction of over 1,100 LEED (Leadership in Energy and Environmental Design)-certified residential units and hundreds of other residential units, 75,000 square feet of commercial and retail space, and parking. LEED-certification is a globally recognized design and building standard for green buildings and neighborhoods. The plan also designates about 28 acres for open space.

So far, the project has achieved several goals. A waterfront esplanade with paved walkways and a bike path are now open to the public. A playground and dog park are now also open and accessible from the waterfront. Many units in the 167-unit condominium completed in 2021 have sold. Nearly 12,000 people live within a mile of the site.

In 2021, community leaders helped break ground on a new affordable housing project at the site. New York State's Homes and Community Renewal Initiative is funding the project, which will provide 55 energy-efficient apartments with amenities such as laundry rooms, bike storage, a children's playroom, a gymnasium, a community room and parking. Nine units will have accessibility features for individuals with disabilities.

The city is also implementing its 1998 Glen Cove Creek Revitalization Plan, which involves redeveloping more than 200 acres around the creek. In 2012, the Federal Highway Administration provided the city with $876,000 for construction of a 2,700-square-foot passenger ferry terminal on site. The Glen Cove Ferry Terminal and Boat Basin opened at part of the Captain's Cove property in 2016. It began providing commuter service to New York City in 2022. At full operation, the ferry can accommodate over 1,600 passengers daily, reducing car travel by over 48,000 miles per day.

VENTRON/VELSICOL

A New Warehouse and Large Rooftop Solar Projects

The upland portion of the Ventron/Velsicol Superfund site is 38 acres in the boroughs of Wood-Ridge and Carlstadt, New Jersey. Improper waste disposal at the site resulted in contamination of soil, groundwater, surface water and sediment with mercury and other contaminants. EPA added the site to the NPL in 1984.

Figure 18: Top: Warehouse loading bays on the Ventron/ Velsicol site (New Jersey). Bottom: Aerial View of Berry's Creek near the Ventron/Velsicol site (New Jersey).

With EPA oversight, the New Jersey Department of Environmental Protection took immediate action to replace contaminated soil with clean fill at affected residential properties and one publicly owned property. Berry's Creek and associated wetlands and marshes border the site and were also affected by contamination. Long-term cleanup included capping and excavating contaminated soil in different areas, as well as installing a barrier to contain contaminated groundwater and ensure a clean buffer zone between capped areas and Berry's Creek. Land and groundwater use restrictions prevent exposure.

Berry's Creek extends into wetlands that support many migratory bird species. The waterways of Berry's Creek also host recreation activities such as fishing, crabbing, canoeing and kayaking. Fish and crab advisories remain active, regulating consumption and protecting human health.

The site's six businesses include two businesses in an area next to the site that was cleaned up as a part of the site's cleanup plan. Commercial and light-industrial uses have also expanded on site during the cleanup, providing over 180 jobs and generating an estimated $124 million in annual sales and nearly $12 million in estimated annual employee income. In 2021, site property parcels had a total value of over $41 million, generating over $1.1 million in annual property taxes.

In 2017, Duke Realty built a warehouse on 19 acres of the site. The warehouse is LEED-certified and hosts a Caribbean food products distributor and a hair and wig products manufacturer. In 2020, Duke Realty offered to participate in the state's Community Solar Program, a pilot program that allows property owners to lease their rooftops or land to solar developers to power their communities. Duke Realty worked with a solar company to install a 2.3-megawatt solar array on the rooftop of the warehouse. The project generates enough energy to provide electricity to 380 homes. Nearly 25,000 people live within a mile of the site. Other properties on site also have solar installations on their rooftops. In 2011, a packaged food wholesaler installed a 480-kilowatt capacity solar array that covers most of the rooftop of its warehouse on site. A metal components manufacturer put eight solar panels on the roof of its building on site. Raw materials used by an on-site packaging firm are certified by the Sustainable Forestry Initiative and the Forest Stewardship Council.

WELSBACH AND GENERAL GAS MANTLE (CAMDEN RADIATION)

COMMUNITY CARE AND A MARINE TERMINAL SOLAR PROJECT

The Welsbach & General Gas Mantle (Camden Radiation) Superfund site in Camden and Gloucester City, New Jersey, was home to incandescent gas mantle manufacturing operations for several decades. These operations led to extensive radiological soil contamination across the two cities, both at the manufacturing facilities and properties nearby. EPA added the site to the NPL in 1996. Cleanup included demolition and off-site disposal of the former gas mantle facility, and removal and off-site disposal of contaminated soil and waste materials from residential and industrial properties. Cleanup activities are ongoing on several parts of the site, including an active port.

EPA collaborated with the Gloucester Marine Terminal to make sure operations at the port could continue safely during cleanup actions. The terminal has 25 million cubic feet of refrigeration capacity, the largest of any terminal in the United States. The terminal handles import and exports of fruit and other specialized cargo such as steel products, forest products, and other freight and domestic cargo. Currently, the Riverside Renewable Energy solar array is situated on the marine terminal's roof top. HLT operates the solar array, which includes more than 27,000 panels that generate 1,300 megawatt hours of power annually. The solar installation contributes to HLT's larger goal of reducing the facility's greenhouse gas emissions. The terminal is also transitioning away from diesel to fully electric powered freight handling equipment. All terminal facilities take part in a recycling program that recycles over 95% of waste generated by operations.

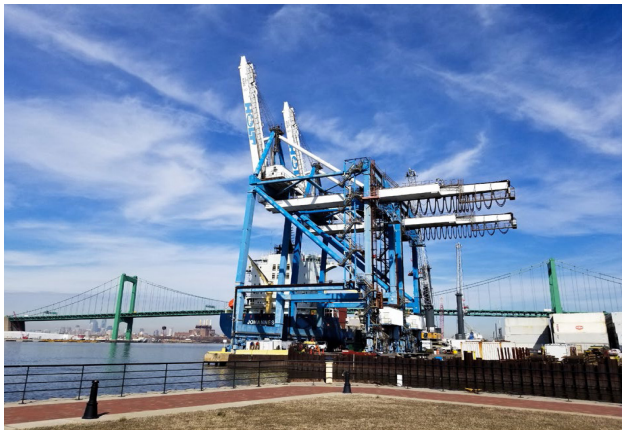


Figure 19: Top: Electric cranes at the Gloucester Marine Terminal at the Welsbach and General Gas Mantle (Camden Radiation) site (New Jersey). Bottom: Signage for the William Flynn Sports Complex at the Welsbach and General Gas Mantle (Camden Radiation) site.

Throughout the cleanup, EPA has worked closely with local officials and community members to make sure cleanup and restoration efforts are protective and take local livelihoods and community priorities into account. For example, EPA, city officials and sports teams collaborated during the restoration and cleanup of two sports complexes on site affected by the soil contamination so that evening practices and games could continue undisturbed. Both sports complexes were restored and reopened, complete with more sports fields, playgrounds, shower facilities, a parking area, a concession stand and walking/running/biking paths.

EPA also coordinated with the Gloucester Swim Club during EPA's environmental clean-up of that property, as the Swim Club rebuilt its clubhouse, concession stand, dive pool and tennis court. In 2017, the Gloucester City Board of Education opened a middle school on property remediated by EPA. The school has a 690-student capacity with a track and football field. Gloucester City Fire Department, a restaurant and a cosmetology school are also on site. In Camden, the location of the General Gas Mantle manufacturing site, cleanup of an abandoned building on a property impacted by the historic disposal of waste material enabled community stakeholders to open a theatre on the property. Nearly 6,000 people live on site. Site businesses employ over 700 people and generate nearly $86 million in estimated annual sales. In 2021, site property parcels had a total value of over $44 million, generating over $1.6 million in annual property taxes.

REDEVELOPMENT ON THE HORIZON IN REGION 2

COMBE FILL NORTH LANDFILL

Former Landfill to Host Strategic Solar Array

The Combe Fill North Landfill Superfund site is in Mount Olive Township, New Jersey. Operation of the 65-acre landfill resulted in groundwater and indoor air contamination with volatile organic compounds. About 10,000 people rely on groundwater supplied from wells about two miles from the site. Nearly 3,000 people live on site. EPA and the New Jersey Department of Environmental Protection capped waste in place and improved indoor air ventilation. The state is continuing to monitor the site. EPA took the site off the NPL in 2004.

Figure 20: Solar power generated at the Combe Fill North Landfill site (New Jersey) will help the state achieve its clean energy goals.

In 2019, the township created a redevelopment plan with the intent of establishing a solar energy facility on site. After acquiring the property, solar developer CEP Renewables broke ground on a 25.6-megawatt solar project. The project will provide clean power to over 4,000 homes while also creating new jobs and generating tax revenue. The solar project will contribute substantially to the state's clean energy goals to reduce dependence on fossil fuels. In 2021, Mount Olive Township received the Innovation in Governance Award from the National League of Cities, the New Jersey Department of Community Affairs and the New Jersey League of Municipalities for its efforts to ensure the property's return to productive use.

GEMS LANDFILL

Bright Future as Landfill Turns into a Solar Field

The roughly 60-acre Gloucester Environmental Management Services, Inc. (GEMS) Landfill Superfund site is in Gloucester Township, New Jersey. Improper waste management of municipal and industrial wastes at the site from 1969 to 1980 resulted in contamination of groundwater, soil, surface water and sediment. EPA added the site to the NPL in September 1983. Most cleanup activities, including installation and operation of a groundwater treatment system, finished by 2004. Long-term cleanup operation and maintenance activities are ongoing. All groundwater users are connected to the municipal water supply. Over 6,000 people live within a mile of the site, and 22% of them live below the federal poverty level.

The township's energy consultant Blue Sky Power partnered with Syncarpha Capital to install a 25-acre solar array on the site to produce emission-free electricity for consumers and revenue for the municipal government. The array's surficial ballast-based installation avoids the need to penetrate the landfill cap. When it comes online in 2022 , the array will produce more than 6 million kilowatt hours of electricity per year. That clean energy is expected to offset more than 4,300 metric tons of carbon dioxide, or the equivalent of almost 11 million miles driven by a typical passenger vehicle, each year.

HOOKER CHEMICAL & PLASTICS CORP./ RUCO POLYMER CORP.

Well-located Industrial Land Available for Development

The 14-acre Hooker Chemical & Plastics Corp./Ruco Polymer Corp. Superfund site is in Hicksville, New York. A chemical manufacturing facility operated on site from 1945 to 2002. Industrial wastewater discharges, as well as leaks and chemical spills, contaminated site soil and groundwater with hazardous chemicals. EPA added the site to the NPL in 1986. After cleanup, the site no longer poses a threat to human health or the environment.

Figure 21: Part of former chemical manufacturing facilities at the Hooker Chemical & Plastics Corp./Ruco Polymer Corp. site prior to industrial redevelopment (New York).

To manage the site, EPA divided it into three distinct areas, or operable units (OUs). EPA addressed contaminated soil as part of OU1 and addressed contaminated surface soil as part of OU2. The contaminated groundwater plume, or area where contaminants disperse, beyond the Hooker/Ruco facility, and the contaminated groundwater beneath the Hooker/Ruco facility is addressed as part of OU3. The soil cleanup for OUs 1 and 2 is complete. Biosparging treats the groundwater beneath the Hooker/Ruco facility. Nearly 18,000 people live within a mile of the site. All properties are connected to the municipal water supply.

Brookfield Asset Management paid $45 million for the site property. It plans to develop a warehouse distribution center on site. The area is well suited for industrial redevelopment because of its close proximity to the Long Island Expressway and a rail spur.

RINGWOOD MINES/LANDFILL

From Landfill to State-of-the-Art Recycling Center

The 500-acre Ringwood Mines/Landfill Superfund site is in a historic iron mining district in the borough of Ringwood in Passaic County, New Jersey. Site features include abandoned mine shafts and pits, inactive landfills and open waste dumps. Magnetite mines operated on the site property as early as the 1700s. Beginning in the 1960s, parties including Ford Motor Company (Ford) and the borough disposed of wastes at the site.

Figure 22: A recycling center is planned for the Ringwood Mines/Landfill site (New Jersey).

After short-term cleanup actions and investigations, EPA added the site to the NPL in 1983 and deleted it from the NPL in 1994. In 2006, EPA placed the site on the NPL again, after finding more contamination. EPA began long-term sampling of groundwater and surface water in 1989. Ford continues to sample groundwater with EPA oversight. Site investigations and long-term cleanup activities are ongoing. Results show that site contamination does not affect the Wanaque Reservoir, a local source of drinking water. Over 2,200 people live within a mile of the site.

During remedy selection, EPA considered Ringwood Borough's intentions to construct a new recycling center atop the O'Connor Disposal Area of the site. Ford paid to construct the $5.4 million recycling center, which opened to the public in 2022. The borough is responsible for 15% of cleanup costs, which will be covered by insurance.

CONCLUSION

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 143 NPL sites and three non-NPL Superfund sites in Region 2 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 2. EPA remains committed to working with all stakeholders to support Superfund redevelopment opportunities in Region 2.

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 cleanups.

Figure 23. Peapod delivery trucks parked at the PJP Landfill site (New Jersey).

Across Region 2, 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 2 Superfund Redevelopment Program Coordinator
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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.

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STATE REDEVELOPMENT PROFILES

NEW JERSEY REDEVELOPMENT PROFILE

EPA partners with the New Jersey Department of Environmental Protection to oversee the investigation and cleanup of Superfund sites in New Jersey. New Jersey has 75 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 New Jersey.

Businesses and Jobs

EPA has collected economic data for 189 businesses and organizations operating at 34 sites in reuse or continued use in New Jersey.

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

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales[c]	Total Employees	Total Annual Employee Income
In Reuse	*31*	*14*	*27*	*$670 million*	*1,938*	*$120 million*
In Continued Use	*15*	*3*	*4*	*$45 million*	*79*	*$7 million*
In Reuse and in Continued Use	*29*	*17*	*158*	*$1.4 billion*	*4,745*	*$304 million*
Totals	***75***	***34***	***189***	***$2.1 billion***	***6,762***	***$431 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 38 Superfund sites in reuse or continued use in New Jersey. These sites span 1,361 property parcels and 3,535 acres.

Table 4. Property Value and Tax Information for Sites in Reuse and Continued Use in New Jersey[a]

Total Land Value (38 sites)	Total Improvement Value (38 sites)	Total Property Value (38 sites)	Total Annual Property Taxes (38 sites)
$505 million	*$601 million*	*$1.1 billion*	*$25 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 24. Entrance signage for the Montgomery Township Shopping Center at the Montgomery Township Housing Development site (New Jersey).

Did You Know?

Improper waste disposal at a neighboring facility caused groundwater contamination at the Montgomery Township Housing Development Superfund site in Montgomery Township, New Jersey. Today, after cleanup, the site is home to the Montgomery Township Shopping Center, which features restaurants, a supermarket and other commercial businesses. These businesses provide over 200 jobs and generate nearly $53 million in estimated annual sales and over $7 million in estimated annual employee income.

NEW YORK REDEVELOPMENT PROFILE

EPA partners with the New York State Department of Environmental Conservation to oversee the investigation and cleanup of Superfund sites in New York. New York has 65 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 New York.

Businesses and Jobs

EPA has collected economic data for 491 businesses and organizations operating at 37 sites in reuse or continued use in New York.

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

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales[c]	Total Employees	Total Annual Employee Income
In Reuse	*29*	*21*	*60*	*$150 million*	*1,419*	*$105 million*
In Continued Use	*11*	*2*	*2*	*$40 million*	*199*	*$22 million*
In Reuse and in Continued Use	*24*	*13*	*427*	*$1.3 billion*	*7,400*	*$394 million*
Totals	***65***	***37***	***491***	***$1.5 billion***	***9,040***	***$522 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 31 Superfund sites in reuse or continued use in New York. These sites span 911 property parcels and 4,721 acres.

Table 6. Property Value and Tax Information for Sites in Reuse and Continued Use in New York[a]

Total Land Value (24 sites)	Total Improvement Value (24 sites)	Total Property Value (31 sites)	Total Annual Property Taxes (26 sites)
$48 million	*$272 million*	*$521 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 25. A creek running through Upson Park at the Eighteen Mile Creek site (New York).

Did You Know?

Operations at manufacturing facilities contaminated sediment, soil and groundwater at the Eighteen Mile Creek Superfund site in Niagara County, New York. Cleanup activities allowed Upson Park to remain open, providing space for walking, picnicking and other recreation activities.

PUERTO RICO REDEVELOPMENT PROFILE

EPA partners with the Puerto Rico Department of Natural and Environmental Resources to oversee the investigation and cleanup of Superfund sites in Puerto Rico. Puerto Rico has five 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 Puerto Rico.

Businesses and Jobs

EPA has collected economic data for eight businesses and organizations operating at three sites in reuse or continued use in Puerto Rico.

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

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales[c]	Total Employees	Total Annual Employee Income
In Reuse	*1*	*1*	*1*	*$780,000*	*52*	*$1 million*
In Continued Use	*1*	*0*	*-*	*-*	*-*	*-*
In Reuse and in Continued Use	*3*	*2*	*7*	*$15 million*	*175*	*$7 million*
Totals	***5***	***3***	***8***	***$16 million***	***227***	***$8 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. 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

Property value and tax data were not available for sites in reuse or continued use in Puerto Rico.

Figure 26. Papelera Puertorriqueña, Inc. continues to make paper, cardboard and plastic products on site (Puerto Rico).

Did You Know?

Since 1965, a paper products manufacturer has operated at the Papelera Puertorriqueña, Inc. Superfund site in Utuado, Puerto Rico. Manufacturing and storage activities continue on site, alongside several public services, including offices for the Puerto Rico Department of Labor and Human Resources and a university campus. Site investigations are ongoing. Site businesses generate over $5 million in estimated annual sales.

THE U.S. VIRGIN ISLANDS REDEVELOPMENT PROFILE

EPA partners with the U.S. Virgin Islands Division of Environmental Protection to oversee the investigation and cleanup of Superfund sites in the U.S. Virgin Islands. The U.S. Virgin Islands has one Superfund site with new uses in place and 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 the U.S. Virgin Islands.

Businesses and Jobs

EPA has collected economic data for four businesses and organizations operating at one site in reuse and continued use in the U.S. Virgin Islands.

Table 8. Detailed Site and Business Information for the Site in Reuse and Continued Use in the U.S. Virgin Islands (2021)

	Sites	Sites with Businesses	Businesses[a]	Total Annual Sales[b]	Total Employees	Total Annual Employee Income
In Reuse	*0*	*0*	-	-	-	-
In Continued Use	*0*	*0*	-	-	-	-
In Reuse and in Continued Use	*1*	*1*	*4*	*$112,000*	*1*	*$18,000*
Totals	***1***	***1***	***4***	***$112,000***	***1***	***$18,000***

[a] Business information is not available for all businesses on all Superfund sites in reuse or continued use.
[b] Annual sales figures are not available (or applicable) for every business.

Property Values and Property Tax Revenues

Property value and tax data were not available for the site in reuse and continued use in the U.S. Virgin Islands.

Figure 27. Storefronts for businesses at the Tutu Wellfield site (U.S. Virgin Islands).

Did You Know?

Industrial operations at the Tutu Wellfield Superfund site on the island of St. Thomas in the U.S. Virgin Islands resulted in a 108-acre groundwater contamination plume. During cleanup and monitoring activities, many businesses, schools, churches and homes safely remain in continued use on site.

SOURCES

REUSE INFORMATION SOURCES

Write-ups of sites in reuse and 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 resources and other resources are included below.

EPA Resources

Burnt Fly Bog. EPA Site Profile. www.epa.gov/superfund/burnt-fly-bog.

Burnt Fly Bog. 2021. Fifth Five-Year Review Report. semspub.epa.gov/src/document/02/609873.

Ciba-Geigy Corp. EPA Site Profile. www.epa.gov/superfund/ciba-geigy.

Chemsol, Inc. EPA Site Profile. www.epa.gov/superfund/chemsol.

Chemsol, Inc. 2020. Fifth Five-Year Review Report. semspub.epa.gov/src/document/02/598792.

Combe Fill North Landfill. EPA Site Profile. www.epa.gov/superfund/combe-fill-north.

Combe Fill North Landfill. 2019. Fifth Five-Year Review Report. semspub.epa.gov/src/document/02/565595.

Eighteen Mile Creek. EPA Site Profile. www.epa.gov/superfund/eighteenmile-creek.

Facet Enterprises. EPA Site Profile. www.epa.gov/superfund/facet-enterprises.

Facet Enterprises. 2017. Fourth Five-Year Review Report. semspub.epa.gov/src/document/02/528289.

Fried Industries. EPA Site Profile. www.epa.gov/superfund/fried-industries.

Fried Industries. 2020. Second Five-Year Review Report. semspub.epa.gov/src/document/02/609920.

GEMS Landfill. EPA Site Profile. www.epa.gov/superfund/gems-landfill.

Hooker Chemical & Plastics Corp./Ruco Polymer Corp. EPA Site Profile. www.epa.gov/superfund/hooker-ruco-polymer.

Li Tungsten Corp. EPA Site Profile. www.epa.gov/superfund/li-tungsten.

Li Tungsten Corp. 2020. Fourth Five-Year Review Report. semspub.epa.gov/src/document/02/598782.

Lipari Landfill. 2020. Beneficial Effects Economic Case Study. semspub.epa.gov/src/document/HQ/100002681.

Montgomery Township Housing Development. EPA Site Profile. www.epa.gov/superfund/montgomery-township.

Montgomery Township Housing Development. 2020. Third Five-Year Review Report. semspub.epa.gov/src/document/02/598787.

Onondaga Lake. 2018. Beneficial Effects Economic Case Study. semspub.epa.gov/src/document/HQ/100002042.

Onondaga Lake. EPA Site Profile. www.epa.gov/superfund/onondaga-lake.

Papelera Puertorriquena, Inc. EPA Site Profile. www.epa.gov/superfund/papelera.

Ringwood Mines/Landfill. EPA Site Profile. www.epa.gov/superfund/ringwood-mines.

Tutu Wellfield. EPA Site Profile. www.epa.gov/superfund/tutu-wellfield.

Ventron/Velsicol. 2021. Beneficial Effects Economic Case Study. semspub.epa.gov/src/document/HQ/100002910.

Ventron/Velsicol. EPA Site Profile. www.epa.gov/superfund/ventron-velsicol.

Welsbach and General Gas Mantle (Camden Radiation). 2020. Beneficial Effects Economic Case Study. semspub.epa.gov/src/document/HQ/100002816.

Welsbach and General Gas Mantle (Camden Radiation). EPA Site Profile. www.epa.gov/superfund/welsbach-ggm.

Other Resources

Ciba-Geigy Corp. BASF Welcomes Local High School Students for Deer Population Study. www.basf.com/ca/en/media/News-Releases/2016/12/P-US-16-252.html.

Ciba-Geigy Corp. EDF Renewables Builds New Jersey's Largest Superfund Solar Site. www.solarpowerworldonline.com/2021/07/edf-renewables-builds-new-jerseys-largest-superfund-solar-site.

Diamond Alkali Co. 2014. Rebranding a River and Reconnecting People to Nature. www.urbanwaterslearningnetwork.org/wp-content/uploads/2014/07/ironbound-case-study-w-logo05_28_14_keywordscorrected.pdf.

Diamond Alkali Co. 2020. "We've Been Forgotten": In Newark, N.J., a Toxic Superfund Site Faces Growing Climate Threats. www.nbcnews.com/news/us-news/we-ve-been-forgotten-newark-n-j-toxic-superfund-site-n1240706.

GEMS Landfill. Gloucester Township Breaks Ground for Solar Field at GEMS Landfill. www.courierpostonline.com/story/news/2021/10/27/gems-landfill-gloucester-township-syncarpha-solar-energy/8562330002.

GEMS Landfill. 2021. Once a Notorious Superfund, South Jersey Landfill Property Soon Will Power Hundreds of Homes with Solar. www.inquirer.com/science/climate/solar-gems-superfund-gloucester-township-climate-change-20211027.html.

GEMS Landfill. 2021. One of the First Superfund Sites is Becoming a Solar Park. www.asce.org/publications-and-news/civil-engineering-source/civil-engineering-magazine/article/2021/12/one-of-the-first-superfund-sites-is-becoming-a-solar-park.

Hooker Chemical & Plastics Corp./Ruco Polymer Corp. 2021. Brookfield to Build Distribution Center on $45M Former LI Superfund Site. rew-online.com/brookfield-to-build-distribution-center-on-45m-former-li-superfund-site.

Population and other demographic estimates used in this report were created using a combination of the most recently available American Community Survey data from the U.S. Census Bureau (2015-2019) and EJScreen – EPA's Environmental Justice Screening and Mapping Tool (Version 2.0). ejscreen.epa.gov/mapper.

Ringwood Mines/Landfill. 2021. Ringwood Ford Superfund Site Soil Project Will Take One Year. It Begins this Month. www.northjersey.com/story/news/passaic/ringwood/2021/02/03/ringwood-nj-superfund-project-begins-february-will-take-one-year/4355744001.

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 2020 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:
Roebling Steel Co. (New Jersey), Brick Township Landfill (New Jersey), Marathon Battery Corp. (New York), Chemical Insecticide Corp. (New Jersey), Marathon Battery (New York), Li Tungsten Corp. (New York)

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