

PUTTING SITES TO WORK

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



Cover page photos:

Universal Oil Products (Chemical Division) (New Jersey), PJP Landfill (New Jersey), Chemical Insecticide Corp. (New Jersey), Marathon Battery Corp. (New York), Brick Township Landfill (New Jersey), Marathon Battery Corp. (New York)

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Figure 1. St. Joseph's Health Amphitheater at the Onondaga Lake site (New York).

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PREFACE

EPA's Superfund program is a cornerstone of the work that the Agency performs for citizens 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 Initiative, the Agency contributes to these communities' economic vitality by supporting the return of sites to productive use.

EPA has established a renewed focus on accelerating work and progress at all Superfund sites across the country and created the Superfund Task Force whose work included promoting redevelopment and community revitalization. Working closely with communities, developers and property owners, EPA is leading the way to return these once-contaminated sites back 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.



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 percent 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 additional 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 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 programs like the Superfund Redevelopment Initiative, EPA Region 2 helps communities reclaim cleaned-up Superfund sites. Factoring 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 underused. EPA Region 2 works to ensure that businesses on properties being cleaned

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

Businesses: 793

Total Annual Sales: \$3.8 billion

Number of People Employed: 15,830

Total Annual Employee Income: \$856 million



Figure 2. Peapod delivery trucks parked at the PJP Landfill site (New Jersey).

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 for communities.

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 15,830 jobs and contribute an estimated \$856 million in annual employment income. Sites in reuse and continued use in Region 2 generate \$23.8 million in annual property tax revenues for local governments.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 70 Superfund sites in reuse or continued use in Region 2 for which EPA does not have business data, including 10 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 99 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: One of the many retail businesses at the American Cyanamid Co. site (New Jersey). Right: The Glen Cove Ferry Terminal at the Li Tungsten Corp. site (New York).

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.

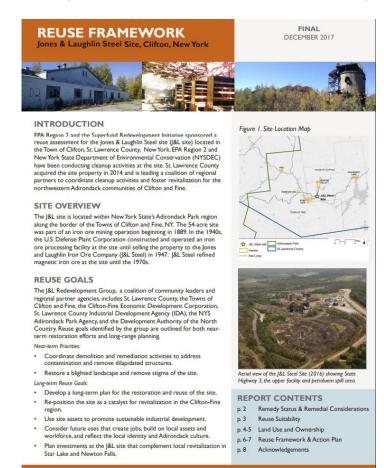


Figure 4. Superfund Redevelopment Initiative reuse framework for the Jones & Laughlin Steel site (New York).

These efforts have helped build expertise across Region 2, 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 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 the Agency is targeting for further investigation and possible remediation through the Superfund program. Once EPA places a site on the NPL, the Agency studies the contamination, identifies technologies that could address the material and evaluates alternative cleanup approaches. EPA then proposes a cleanup plan and, after collecting public input, issues a final cleanup plan. The Agency then cleans up the site or oversees cleanup activities. EPA has placed 296 sites in Region 2 on the NPL.

Whenever possible, EPA seeks to integrate redevelopment priorities into site cleanup plans. In Region 2, 135 NPL sites and two non-NPL Superfund sites are in use. These sites have either new uses in place or uses that remain in place from before cleanup. Many of these sites have been redeveloped for commercial, industrial and residential purposes. Others have been redeveloped for recreational, ecological and agricultural uses. 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.

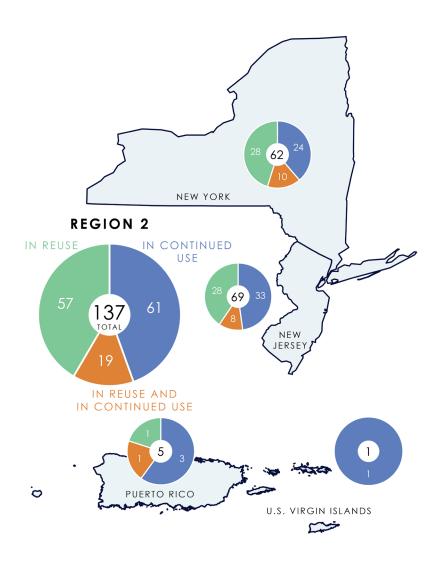


Figure 5. Sites in reuse and continued use in Region 2.

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





Figure 6. Municipal trucks at the parking area at the Syosset Landfill site (New York).

Sites in Reuse and Continued Use: A Closer Look

Reuse Type	Description	Region 2 Example		
In Reuse	There is a new land use or uses on all or part of a site. This is because either the land use has changed (e.g., from industrial use to commercial use) or the site is now in use after being vacant.	Syosset Landfill (New York) – former landfill now supports a salt storage facility, an equipment storage facility and a vehicle parking area for municipal sanitation trucks.		
In Continued Use	Historical uses at a site remain active; these uses were in place when the Superfund process started at the site.	Vineland State School (New Jersey) – Vineland State School now the Elwyn New Jersey campus, continues to provide community-based work and day programs for adults with disabilities.		
In Reuse and Continued Use	Part of a site is in continued use and part of the site is in reuse.	Jones Sanitation (New York) — closed landfill area now supports truck storage and parking; wetlands and wooded areas remain in ecological use.		

BENEFICIAL EFFECTS OF SUPERFUND SITE REDEVELOPMENT IN REGION 2

Businesses and Jobs

EPA has collected economic data for 793 businesses, government agencies and civic organizations operating on 65 NPL sites and two non-NPL site 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 wholesale and retail trade, manufacturing, freight transportation and handling services, banking and real estate services, and social and educational services.

Businesses, facilities and organizations at these sites include warehouse club and superstore Costco, home furnishings company Bed Bath & Beyond, a Shop-Rite supermarket, a Lowe's home improvement center, a baseball park, and a museum.

The businesses and organizations at these sites earn about \$3.8 billion in estimated annual sales and employ about 15,830 people, earning an estimated \$856 million in annual employment income. This income injects money into local economies and generates revenue through personal state income taxes. These businesses also help local economies through direct purchases of local supplies and services. On-site businesses that produce retail sales and services also generate tax revenues through the collection of sales taxes, which support state and local governments. More detailed information is presented in Table 1.4

Table 1. Site and Business Information for Region 2 Sites in Reuse and Continued Use (2019)

	Sites°	Sites with Businesses ^b	Businesses ^c	Total Annual Sales ^d	Total Employees	Total Annual Employee Income
In Reuse	57	29	122	\$894 million	4,570	\$242 million
In Continued Use	61	28	569	\$2.3 billion	9,047	\$469 million
In Reuse and in Continued Use	19	10	102	\$617 million	2,213	\$145 million
Total	137	67 ^e	793	\$3.8 billion ^f	15,830	\$856 million ^f

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

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

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

^d For information on the collection of business, jobs and sales data, see Sources.

^e See footnote 1, page 1.

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

³ See footnote 1, page 1.

For additional information on the collection of business, jobs and sales data, see Sources.

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. This increased value can boost property tax revenues, which help pay for local government operations, schools, transit systems and other public services. Site properties at the Onondaga Lake site in New York are now valued at over \$340 million.

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: \$1.2 billion

Total Annual Property Taxes: \$23.8 million



Figure 7. The Waterfront South Theatre at the Welsbach & General Gas Mantle (Camden Radiation) site (New Jersey).

EPA has collected property value and tax data for 38 Superfund sites in reuse and continued use in Region 2.⁵ These sites span 1,691 property parcels and 7,167 acres. They have a total property value of \$1.2 billion. The average total property value per acre is \$169,000.

Land and improvement property value information is available for 32 sites. These properties have a total land value of \$384 million and a total improvement value of \$454 million.⁶

Property tax information is available for 38 sites. The properties generate a combined \$23.8 million in local property taxes annually.

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

Total Land Value (32 sites) ^b	Total Improvement Value (32 sites)	Total Property Value (38 sites)	Total Property Value per Acre (38 sites) ^c	Total Annual Property Taxes (38 sites)
\$384 million	\$454 million	\$1.2 billion	\$169,000	\$23.8 million

^a Results are based on an EPA Superfund Redevelopment Initiative 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 2016 to 2018. For additional information, see Sources. 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 \$1.2 billion divided by total acreage of 7,167.

There are 99 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. Greenspace 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 can 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 can serve 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 recreational 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. 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. At the Gowanus Canal site in Brooklyn, New York, canoers and kayakers enjoy the waterway, which features floating gardens built by volunteers with the Gowanus Canal Conservancy. Part of the Asbestos Dump site in Millington, New Jersey, is located in the Great Swamp Natural Wildlife Refuge. Reuse of the Welsbach & General Gas Mantle (Camden Radiation) site in Camden, New Jersey, includes the restoration of two local recreation facilities. These facilities include several baseball, football, softball and little league baseball fields.



Figure 8. The Great Swamp Natural Wildlife Refuge at the Asbestos Dump site (New Jersey).

The redevelopment of this site will only serve to improve a municipal landfill that is currently a liability, and transform it into a sustainably productive asset. The infrastructure planned for this solar project will provide the Township with the ability to create a stable source of revenue that will allow for savings of energy costs in the future." 2010 Township of Brick Landfill Redevelopment Plan.

The Outdoor Recreation Economy. Outdoor Industry Association. Available at https://outdoorindustry.org/wp-content/uploads/2017/04/OIA_RecEconomy-FINAL_Single.pdf.

Why Are Wetlands Economically Important?

Superfund site reuse can support wetland habitat, as seen at several sites in Region 2. At the Marathon Battery Corp. site in Cold Springs, New York, cleanup included the removal of contaminated sediment from the marshes and the Hudson River. During cleanup of the Imperial Oil Co., Inc./Champion Chemicals site in Morganville, New Jersey, EPA worked with New Jersey Department of Environmental Protection (NJDEP) to create protected wetland areas and two separate wildlife habitats for box turtles.

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



Figure 9. Restored wetlands at the Imperial Oil Co., Inc./ Champion Chemicals site (New Jersey).

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 recreational 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 in ecosystem services. To learn more, see:

- EPA's *Economic Benefits of Wetlands*: <u>www.epa.gov/sites/production/files/2016-02/documents/economicbenefits.pdf</u>.
- EPA's Why Are Wetlands Important?: www.epa.gov/wetlands/why-are-wetlands-important.

Beneficial Effects from Alternative Energy Projects

Alternative energy projects produce many beneficial effects. They can support construction and operations jobs, spur local investment in manufacturing and materials, create benefits for landowners in the form of land lease or right-of-way payments, lower energy costs, and reduce greenhouse gas emissions. They can also help hedge against energy price and supply volatility, help support local business competitiveness and technology supply chain development, provide outreach or public relations opportunities for site owners and communities, and contribute to broader economic development planning.



Figure 10. Solar array at the Brick Township Landfill site (New Jersey).

Several efforts in Region 2 have encouraged opportunities for alternative energy project development on Superfund sites:

- In July 2015, Brick Township, New Jersey, received the first EPA Region 2 Excellence in Site Reuse Award for its installation of 24,000 solar panels at the **Brick Township Landfill** site. The 7-megawatt solar project helps the community provide low-cost energy to its parks and municipal buildings.
- In December 2015, a 12.9-megawatt solar project began operating at the **Landfill & Development Co.** site in New Jersey. The project generates enough energy to power about 2,000 homes and includes 42,000 solar panels.
- At the **South Brunswick Landfill** site in New Jersey, the former landfill is now home to a 13-megawatt solar array that will provide enough energy to power 1,360 homes. Developers completed the array in 2018. It includes 40,000 solar panels.

PJP LANDFILL

Land Redevelopment along the Hackensack River

The 87-acre PJP Landfill Superfund site is located in Jersey City, New Jersey. From 1970 to 1974, the PJP Landfill Company operated a commercial landfill on site, accepting chemical and industrial wastes. Illegal dumping continued until 1984 and resulted in contaminated soil and groundwater. The primary contaminants of concern at the site are benzene, tetrachloroethene, xylene, arsenic, chromium and lead. In addition, there were frequent subsurface landfill fires. EPA added the site to the NPL in 1983. Early cleanup activities by NJDEP included extinguishing landfill fires, capping 45 acres of the landfill, installing gas vents and a firebreak trench, and disposing of contaminated soils and other materials off site. NJDEP, in concurrence with EPA, issued a Record of Decision in 1995 and approved the final design for the site remedy in 2007. NJDEP delayed installing the permanent landfill cap and completing the cleanup plan after a prospective purchaser expressed interest in purchasing and redeveloping the site.

Because of its proximity to New York City and other major transportation routes, AMB, a distribution company, expressed interest in potential site development opportunities and purchased 51.4 acres of the site in March 2008. AMB assumed responsibility for its cleanup, including removal of about 6,500 tires, installation of groundwater monitoring wells and construction of a cap over the area it purchased. Extensive planning and coordination among EPA, NJDEP and AMB integrated remedy and reuse considerations, enabling construction of the warehouse on top of part of the landfill. Building design included a landfill cap and a vapor ventilation and monitoring system in the foundation of the warehouse to prevent the exposure of workers to unsafe levels of landfill gases.

In 2011, Prologis acquired AMB and completed the Leadership in Energy and Environmental Design (LEED)-certified Pulaski Distribution Center in 2014. Prologis leases the distribution center and warehouse to two tenants, the Imperial Bag & Paper Company and Peapod (a subsidiary of Ahold Industries). Today, site businesses employ over 1,400 people, providing over \$79 million in estimated annual employee income and generating about \$327 million in estimated annual sales. Site property parcels have a total value of over \$24 million and generate almost \$1.8 million in annual property taxes.

After the remaining 32 acres of landfill were capped and the wetland areas were restored, the city of Jersey City acquired them in 2010. Jersey City's goal is to create green space and a park. The site's wetlands cleanup has led to creation of habitat for a wide variety of wildlife, including small mammals and waterfowl. The cleanup also supports recreational and ecological reuses. Prologis and the city of Jersey City are working to develop a waterfront greenway along the Hackensack River. There is a waterfront walkway on the Prologis property that provides a recreation amenity for on-site employees. People can enjoy riverfront views and watch wildlife. In June 2018, EPA presented NJDEP, Jersey City and Prologis with an Excellence in Site Reuse Award. The award recognizes Superfund site partners who have collaborated with EPA to support redeveloping Superfund sites in ways that are beneficial to communities and compatible with site cleanups.



transformation of an underutilized contaminated property into sustainable beneficial use, despite initial complications due to multi-party involvement. The PJP Landfill remediation was a true partnership between the public and private sectors involving several government agencies, religious organizations and private entities." Haiyesh Shah, NJDEP Project Manager.

Figure 11. The Pulaski Distribution Center at the PJP Landfill site (New Jersey).

LI TUNGSTEN

New Ferry Terminal and Mixed-Use Development Underway

The Li Tungsten Corp. Superfund site is located in Glen Cove, New York. The site includes Glen Cove Creek, the 26-acre former Li Tungsten facility and portions of Captain's Cove property and adjacent areas where parties disposed of radiologically- and/or metals-contaminated ore residuals associated with the former facility. 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 used as a dump site for the disposal of incinerator ash, sewage sludge, household debris, dredged sediment from Glen Cove Creek and industrial wastes, including ore residuals from the Li Tungsten facility. EPA placed the site on the NPL in 1992.

Early cleanup actions included disposal of laboratory reagents and drummed chemicals, removal of asbestos, hazardous chemicals and tanks found at the facility, demolition of two structures, and addressing of contaminated dredged sediment. 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. The site's original cleanup plan was modified to ensure that cleanup would support future restricted residential use across most of the site. Cleanup of Glen Cove Creek involved construction of a dewatering facility, dredging of the creek to remove radioactive slag materials, dewatering of the dredged materials, segregation of the slag from the dewatered sediment and off-site disposal of the radioactive slag. Site cleanup finished in 2008. Long-term groundwater monitoring is ongoing.

The city has been implementing its 1998 Glen Cove Creek Revitalization Plan, which involves redeveloping more than 200 acres around the creek. Today, redevelopment of parts of the site has begun and planning is underway to develop the rest of the site. After 14 years of planning, the Federal Highway Administration provided Glen Cove with \$876,000 for the 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 summer 2016. The ferry is expected to provide commuter service to New York City in the future.

Thanks to the carefully planned cleanup, the city was able to recently rezone the former facility property for restricted residential use. Today, development of a smart growth, mixed-use community called Garvies Point is underway at the site. The development's master plan calls for the construction of over 1,100 LEED-certified residential units, hundreds of new condominiums and rental apartments, 75,000 square feet of commercial and retail space, and parking. The plan also designates about 28 acres for open space. This area will include a waterfront esplanade, parks, playgrounds, walkways, trails, a bike path and a dog park.



Figure 12. The Glen Cove Ferry Terminal at the Li Tungsten Corp. site (New York).

AMERICAN CYANAMID CO.

Bridgewater Promenade and TD Bank Ballpark

The 575-acre American Cyanamid Superfund site is located in Bridgewater Township, New Jersey. For over 80 years, different companies made a range of chemical products on site, including rubber-based chemicals, dyes, pigments, petroleum-based products and pharmaceuticals. Manufacturing operations and waste disposal practices led to contamination of site soil, sediment and groundwater. In 1983, EPA placed the site on the NPL.

In 1996, EPA selected a remedy for the 140-acre portion of the site known as the Hill Property. The remedy called for no further action and groundwater monitoring. Cleanup of the remaining site properties, most of which are located in the Raritan River floodplain area, is ongoing. In 1998, a consultant hired by The Home Depot and Target contacted NJDEP regarding potential redevelopment of a part of the Hill Property as a commercial retail center. While the proposed reuse was compatible with the remedy, the retailers were uncomfortable with the idea of building on a Superfund site and had liability concerns. As a result, the retailers approached NJDEP with a request that EPA delete the Hill Property from the NPL. NJDEP consulted with EPA Region 2 and EPA Headquarters about the possibility of a partial deletion – a relatively new approach at the time that involved removing a remediated part of a Superfund site from the NPL. In December 1998, EPA deleted the Hill Property from the NPL. It was one of the first partial deletions in Region 2.

Today, the former Hill Property is home to the Bridgewater Promenade, a thriving commercial shopping center, and TD Bank Ballpark, a minor league baseball stadium for the Somerset Patriots. The 6,488-seat stadium, which opened in June 1999, hosts more than 70 events annually, including baseball games, playoff events, concerts, and corporate and collegiate events. The stadium has hosted more than six million people since it opened.

As part of a county-wide effort to generate more renewable energy, the Somerset County Improvement Authority supported installation of 3,465 elevated solar panels over two of the stadium's parking lots in 2013. In total, the panels produce over 1.14 million kilowatt-hours of electricity annually while also shading visitor parking. Solar power from these arrays meets about 90 percent of the ballpark's energy needs. When not in use for games and events, one of the parking lots at TD Bank Ballpark serves as a commuter parking lot for New Jersey Transit's Bridgewater Station. The station is part of the Raritan Valley Line, which provides service to major transfer points in New Jersey, New York and Pennsylvania.

The 625,000-square-foot Bridgewater Promenade Shopping Center opened on site in 1999. Current commercial retail tenants include Costco, Target, Home Depot, Old Navy, Bed Bath & Beyond, Marshalls, Michaels and PetSmart. Restaurants include Applebee's, Pancheros Mexican Grill and McDonalds. The total leasable commercial area is over 240,000 square feet. Today, site businesses employ over 1,470 people, providing over \$42 million in estimated annual employee income and generating over \$332 million in estimated annual sales. In 2018, site property parcels had a total value of \$133 million, generating \$2 million in annual property taxes.



Figure 13. The TD Bank Ballpark at the American Cyanamid Co. site (New Jersey).

ONONDAGA LAKE

Revitalization of Lakeside Communities

The Onondaga Lake Superfund site is located in the towns of Geddes and Salina, the villages of Solvay and Liverpool, and the city of Syracuse, New York. It includes the 4.6-square-mile Onondaga Lake, tributaries and upland sources of contamination.

In the late 1800s and early 1900s, Onondaga Lake supported a thriving resort industry based on recreational use of the lake, including swimming and fishing. The lake also had a plentiful cold-water fishery, which supported a commercial fishing industry until the late 1800s. During the late 1800s through the mid-1900s, the lake's western shore became industrialized and the lake became a repository for industrial and municipal wastes. Investigations determined that industrial facilities along the shoreline and tributaries to the lake contaminated surface water, sediment, soil and groundwater. Early lake cleanup efforts began in the late 1970s, following the passage of the Clean Water Act. EPA placed the site on the NPL in 1994.

Remedial work for the Onondaga Lake site has been organized into discrete subsites to facilitate planning and remedy implementation. Between 1998 and 2019, regulatory agencies selected remedies for all or parts of 10 of the site's 11 subsites. Remedial activities at nine subsites have been completed or are underway. Site cleanup activities implemented thus far include dredging and capping contaminated sediment, excavation and capping of contaminated soil, treatment of contaminated materials, and groundwater collection and treatment. Habitat restoration efforts included improving wetlands and planting native plants, shrubs and trees in shoreline areas. Feasibility studies to evaluate cleanup alternatives are underway for one subsite and portions of three other subsites.

Public input and feedback were incorporated throughout the cleanup to ensure a shared vision of continued and future use of the lake as a recreational and ecological center. Stakeholders and regulators have also worked together to optimize the opportunity to turn a polluted lake into a valuable local and regional resource. Today, the lake is open for recreation, including boating and fishing, and it is surrounded by a network of trails. The St. Joseph's Health Amphitheater at Lakeview, an outdoor entertainment venue located on the shores of the lake, opened in 2015. The event complex can host up to 17,500 people in covered and lawn seating. It includes nature and recreation areas, boat docks, and vendor and festival areas. Cleanup has also resulted in significant ecological benefits. To date, about 90 acres of wetlands have been restored and about 1.1 million native plants have been planted. More than 250 wildlife species are now found on site, including more than 120 bird species.

The site also supports several businesses. In 2006, the former General Motors factory at the General Motors – Inland Fisher Guide subsite was redeveloped into an industrial park. Salina Industrial Powerpark covers 78 acres and includes more than 800,000 square feet of manufacturing space. Today, site businesses employ about 230 people, providing over \$16 million in estimated annual employee income and generating over \$81 million in estimated annual sales. In 2018, site property parcels had a total value of over \$340 million, generating \$186,000 in annual property taxes.



Figure 14. Salina Industrial Powerpark at the Onondaga Lake site (New York).

REDEVELOPMENT ON THE HORIZON IN REGION 2

TRANSFORMING A FORMER ELECTRONICS MANUFACTURING FACILITY TO A MANUFACTURING AND LIGHT INDUSTRIAL HUB

From 1974 to 2004, Buckbee-Mears Co. Inc. operated an electronic components facility at the 74-acre Buckbee-Mears Co. site in Cortland County, New York. The manufacturing process required the storage of bulk chemicals and hazardous materials, including acids, ammonia, chlorine and metals, on site. After acquiring the facility from Buckbee-Mears in 2004, International Electronic Devices (IED) then abandoned the site in 2005. IED left behind large amounts of chemicals and waste products, which further contaminated soil, groundwater and structures at the site. The following year, the Cortland Police Department discovered the large quantities of hazardous materials at the unsecured facility. To address uncontrolled releases of hazardous materials at the site, EPA undertook an extensive removal action.

For several years, the site sat vacant and deteriorating, with millions of dollars in liens against it. However, the site is conveniently located close to downtown Cortland, as well as both rail and interstate service, and presented opportunities for redevelopment. A reuse assessment process, extensive EPA cleanup and creative settlements spurred the transformation of this blighted properly into a valuable economic resource.

In 2012, EPA supported a reuse assessment process to help overcome barriers to development, document the cleanup status and clarify reuse opportunities at the site. EPA initiated discussions with local officials, the Cortland County Industrial Development Agency, the city of Cortland and the bank that held a substantial lien on the property; this dialogue led to a series of settlements that allowed a foreclosure on and sale of the site property, with profits divided among the major lienholders. In 2014, a developer purchased the site at a foreclosure auction and invested in rehabilitation of the usable buildings.

Today, Cortland Industrial Center is ready for tenants. Conveniently located near Interstate 81, the site features rail access with a four-spur track, a 135,000-square-foot slab adjacent to the rail spur for materials storage, a 14,500-square-foot attached office building, a 30,000-square-foot warehouse facility, and a 205,000-square-foot manufacturing facility, as well as vacant land available for expansion.



Figure 15. Aerial view of the Buckbee-Mears, Co. site (New York). Imagery © 2019 Google.

CONCLUSION

EPA works closely with its partners at Superfund sites across Region 2 to make sure sites can safely be reused or remain in continued use during and following 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 135 NPL sites and two 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 two states and two territories in Region 2.



Figure 16. The Prologis warehouse at the PJP Landfill site (New Jersey).

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

EPA Superfund Site Redevelopment Resources

EPA Region 2 Superfund Redevelopment Initiative Coordinator Jaclyn Kondrk | 212-637-4317 | kondrk.jaclyn@epa.gov

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

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

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

I am so pleased to join with my colleagues in local government to help make this long-overdue project a reality for our residents. This facility will become a haven for residents of all ages to enjoy." James Kennedy, Nassau County Legislator, in reference to the Liberty Industrial Finishing Superfund site.

EPA REGION 2



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 69 Superfund sites with either new uses in place or uses that have remained 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 231 businesses and organizations operating on 29 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 (2019)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	28	10	54	\$675 million	2,996	\$127 million
In Continued Use	33	14	105	\$891 million	1,472	\$98 million
In Reuse and in Continued Use	8	5	72	\$503 million	1,766	\$118 million
Total	69	29	231	\$2.1 billion	6,234	\$343 million

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

Property Values and Property Tax Revenues

EPA has collected property value data for 30 Superfund sites in reuse or continued use in New Jersey. These sites span 1,547 property parcels and 3,411 acres.

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

Total Land Value (30 sites)	Total Improvement Value (30 sites)		
\$383 million	\$452 million	\$835 million	\$23 million

^a The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2016 to 2018.



Figure 17. Entrance to the equestrian school at the Higgins Disposal site.

Did You Know?

From the 1950s to 1982, a waste disposal business operated at the Higgins Disposal site in Kingston, New Jersey. The completed soil cleanup and ongoing groundwater cleanup are compatible with current site uses, which include a home, an equestrian school and a truck repair shop. The two businesses employ seven people and provide over \$161,000 in estimated annual income.

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



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 62 Superfund sites with either new uses in place or uses that have remained 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 549 businesses and organizations operating on 34 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 (2019)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	28	18	67	\$218 million	1,522	\$113 million
In Continued Use	24	12	458	\$1.4 billion	7,481	\$370 million
In Reuse and in Continued Use	10	4	24	\$109 million	367	\$25 million
Total	62	34	549	\$1.7 billion	9,370	\$508 million

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

Property Values and Property Tax Revenues

EPA has collected property value data for eight Superfund sites in reuse or continued use in New York. These sites span 144 property parcels and 3,756 acres.

Table 6. Property Value and Tax Information for Sites in Reuse and Continued Use in New Yorka

Total Land Value	Total Improvement Value	Total Property Value	Total Annual Property Taxes
(2 sites)	(2 sites)	(8 sites) ^b	(8 sites)
\$1 million	\$2 million	\$373 million	

^a The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2016 to 2018.

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



Figure 18. One of the light industrial businesses at the Kenmark Textile Corp. site.

Did You Know?

Since the early 1900s, several textile dying, printing and screening companies have operated at the Kenmark Textile Corp. site in Farmingdale, New York. One of these companies continues to operate on site. Several other light industrial businesses also now operate there. In total, these businesses employ 196 people, providing nearly \$11 million in estimated annual employee income. They generate over \$16 million in estimated annual sales.

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



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 that have remained 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 nine businesses and organizations operating on 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 (2019)

	Sitesa	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	3	1	2	\$10 million	91	\$1 million
In Reuse and in Continued Use	1	1	6	\$5 million	80	\$2 million
Total	5	3	9	\$16 million	223	\$4 million

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

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 19. Aerial view of San German. Imagery © 2019 Google.

Did You Know?

The San German Ground Water Contamination site is located in San German, Puerto Rico. Retiro Industrial Park continues to operate on site; businesses include a jewelry manufacturer and commercial printing business. Businesses at the industrial park employ 91 people, providing over \$1.3 million in estimated annual employee income and generating over \$10 million in estimated annual sales.

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

^c 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.



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 uses that have remained in place since before cleanup. The sections below present economic data, property values and tax data for one site in continued use in the U.S. Virgin Islands.

Businesses and Jobs

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

Table 8. Detailed Site and Business Information for Site in Continued Use in the U.S. Virgin Islands (2019)

	Sites	Sites with Businesses	Businesses ^a	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	0	0	0	\$0	0	\$0
In Continued Use	1	1	4	\$5 million	3	\$80,000
In Reuse and in Continued Use	0	0	0	\$0	0	\$0
Total	1	1	4	\$5 million	3	\$80,000

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

Property Values and Property Tax Revenues

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



Did You Know?

The Tutu Wellfield site in Charlotte Amalie, Saint Thomas, in the U.S. Virgin Islands, is home to schools, churches, homes, a laundromat, a mattress store and an auto service station. Site businesses generate over \$4.6 million in estimated annual sales and provide over \$80,000 in estimated annual income.



SOURCES

BUSINESS, JOBS, SALES AND INCOME INFORMATION

Information on the number of employees and sales volume for on-site businesses comes from the Hoovers/Dun & Bradstreet (D&B) (https://www.dnb.com) database. EPA also gathers information on businesses and corporations from D&B. D&B maintains a database of over 330 million active and inactive businesses worldwide.

When Hoovers/D&B research was unable to identify employment and sales volume for on-site businesses, EPA used the ReferenceUSA database (http://resource.referenceusa.com). In cases where ReferenceUSA did not include employment and sales volume for on-site businesses, EPA used the Manta database (https://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 2019. Estimated annual employment income was calculated using 2019 jobs data and BLS average weekly wage data for those jobs from 2018 (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 2016 to 2018 where date information was provided. Throughout this report, property and tax values may not sum exactly to the totals presented due to rounding. Federal facility sites are excluded from all property value and tax calculations.

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 Initiative case studies as well as other resources. Links to EPA's Superfund Redevelopment Initiative case studies and other resources are included below.

EPA Resources

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Other Resources

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United States Environmental Protection Agency

Region 2 290 Broadway New York, NY 10007-1866

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