EPA

September 2017
















# PUTTING SITES TO WORK

***How Superfund Redevelopment in the New England Region Is Making a Difference in Communities***




# WHAT'S INSIDE?

Figure 1. Industri-Plex site (Massachusetts)


Preface ..... 2
Introduction ..... 3
Support for Superfund Reuse ..... 5
Superfund Reuse: The Big Picture ..... 6
Beneficial Effects of Superfund Site Reuse in Region 1 ..... 7
Reuse in Action ..... 11
State Reuse Profile: Connecticut ..... 17
State Reuse Profile: Maine ..... 18
State Reuse Profile: Massachusetts ..... 19
State Reuse Profile: New Hampshire ..... 20
State Reuse Profile: Rhode Island ..... 21
State Reuse Profile: Vermont ..... 22
Reuse on the Horizon in Region 1 ..... 23
Conclusion ..... 24
Sources ..... 25
Appendix A: Reuse Summary Profiles ..... A-1


Cover page photos, clockwise from top left: Wells G&H (Massachusetts), Elizabeth Mine (Vermont) (*Photo credit: Weston and Sampson, Conti Solar, and Elizabeth Mine Solar I, LLC*), Industri-Plex site (Massachusetts), Solvents Recovery Service of New England (Connecticut), Eastland Woolen Mills (Maine), Gallup's Quarry (Connecticut) (*Photo credit: Greenleaf Power LLC*), Peterson/Puritan, Inc. (Rhode Island)

# Preface

*Every day, EPA's Superfund program makes a visible difference in communities nationwide. The revitalization of communities affected by contaminated lands is a key part of Superfund's mission, delivering significant benefits one community at a time across the country. Through EPA's Superfund Redevelopment Initiative, the Agency contributes to these communities' economic vitality by supporting the return of sites to productive use. These regional profiles highlight community-led efforts as EPA launches a new era of partnerships and works toward a sustainable future.*

# Introduction

America's Industrial Revolution had its origins in New England. The resulting innovations had far-reaching impacts across the United States and internationally. While each state in EPA Region 1 – Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont – has grown in different ways, each has had to address contamination resulting from past industrial operations. Today, New England states and communities are working diligently to find new uses for their old industrial sites, including Superfund sites. The Superfund program in EPA Region 1 is proud to play a role in these efforts.

The cleanup and reuse of Superfund sites often restores value to site properties and surrounding communities that have been negatively affected by contamination. Site reuse can revitalize a local economy with jobs, new businesses, tax revenues and local spending.

Through programs like the Superfund Redevelopment Initiative (SRI), EPA Region 1 helps communities reclaim cleaned-up Superfund sites. Factoring in future use of Superfund sites into the cleanup process promotes their safe reuse. In addition, EPA Region 1 works closely with state and local officials to remove barriers that have kept many Superfund sites underused. EPA Region 1 works to ensure that businesses on properties being cleaned up under Superfund can continue operating in a manner that protects both human health and the environment while site investigations and cleanup work continue. This continuity enables these businesses to remain as a source of jobs for communities.

**Region 1 Sites in Reuse and Continued Use: Business and Job Highlights**

Businesses
287
Estimated Annual Sales
$1.4 billion
Number of People Employed
6,210
Total Annual Employee Income
$355 million




Figure 2. Raymark Industries, Inc. (Connecticut)

Superfund sites across Region 1 are now the locations of office and business parks, retail shopping centers, single-family homes, condominiums, apartments and a hotel. Others support manufacturing or public uses, including a building for truck body assembly, a commuter train and bus station, and a wastewater treatment facility. Many sites continue to host industrial operations, including manufacturing facilities. Some are now locations for alternative energy projects. Others host soccer fields, hiking trails, an ice-skating arena and a model airplane flying field. On-site businesses and organizations at current and former Region 1 Superfund sites provide an estimated 6,210 jobs and contribute an estimated $355 million in annual employment income. Cleaned-up sites in use in Region 1 generate $3 million in annual property tax revenues for local governments.[1]

This 2017 profile looks at how redevelopment activities at Superfund sites make a difference in communities across Region 1. In particular, it describes some of the beneficial effects of reuse and continued use of current and former Superfund sites. The profile also describes the land values and property taxes associated with Superfund sites returned to use following

[1] Business and property value tax figures represent only a subset of the beneficial effects of sites in reuse or continued use in Region 1. There are 36 Superfund sites in reuse or continued use in Region 1 for which EPA does not have business data, including 14 federal facilities on the Superfund National Priorities List (NPL). Not all sites in reuse involve an on-site business or other land use that would employ people. Several sites without businesses have beneficial effects that are not easily quantified, such as properties providing ecological or recreational benefits (such as parks, wetlands, ecological habitat and open space). There are 47 sites in reuse or continued use in Region 1 for which EPA does not have property value data and 56 sites in reuse or continued use that do not have tax data, including 14 NPL federal facilities.

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

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

Figures presented represent only a subset of all Superfund sites in reuse or continued use in Region 1.

## Support for Superfund Reuse

EPA Region 1 is committed to making a visible difference in communities through the cleanup and reuse of Superfund sites. In addition to protecting human health and the environment through the Superfund program, Region 1 partners with stakeholders to encourage reuse opportunities at Superfund sites. Region 1 helps communities and cleanup managers consider reuse during cleanup planning and evaluate remedies already in place to ensure appropriate reuse at cleaned-up sites. In addition, EPA participates in partnerships with communities and encourages opportunities to support Superfund redevelopment projects that emphasize environmental and economic sustainability.

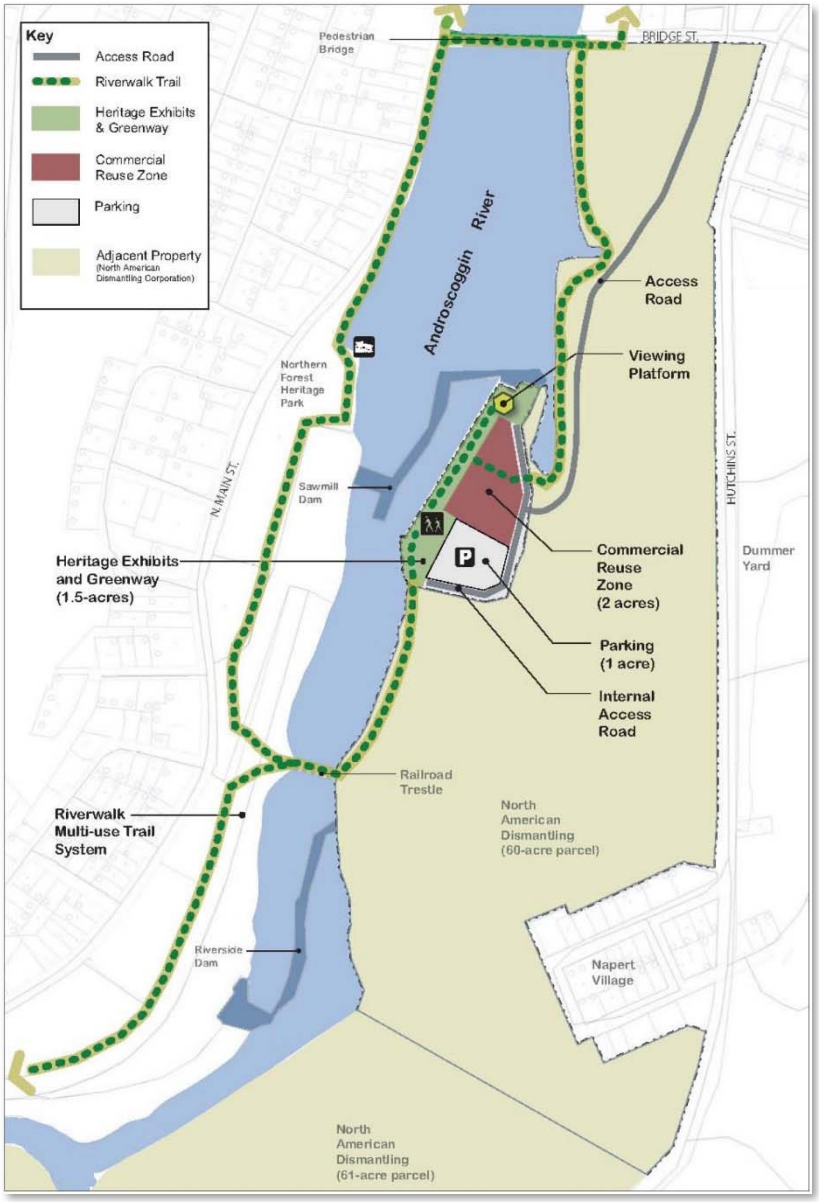



Figure 3. Reuse framework map for a portion of the Chlor-Alkali Facility site (New Hampshire)

Specific reuse support efforts in EPA Region 1 include:

- Identifying and evaluating local land use priorities to align with site cleanup plans through the reuse planning process.
- Facilitating cleanup and reuse discussions to help resolve key issues between parties interested in site redevelopment.
- Supporting targeted projects intended to help Region 1 communities and EPA find the right tools to move site reuse forward.
- Making efforts to help address communities' and developers' liability, safety and reuse concerns through development of educational materials, comfort letters, developer agreements and environmental status reports that provide information about the appropriate use of sites.
- Supporting partnerships with groups committed to putting Superfund sites back into use.
- Developing the Process for Risk Evaluation, Property Analysis and Reuse Decisions Workbook for local governments considering the reuse of contaminated properties.
- Developing reuse fact sheets, videos, websites and reuse case studies to share opportunities and lessons associated with Superfund redevelopment.

All of these efforts have helped build expertise across Region 1, making it easier to both consider future use of Superfund sites prior to cleanup and identify opportunities for removing reuse barriers. These efforts also help other communities, state agencies, potentially responsible parties and developers better understand potential future uses for Superfund sites. This helps stakeholders engage early in the cleanup process, ensuring that Superfund sites are restored as productive assets for communities. Most importantly, these efforts lead to significant returns for communities, including jobs, annual income and tax revenues.

# Superfund Reuse: The Big Picture

EPA can take and oversee immediate action at contaminated sites through short-term cleanup actions, also called removal actions.[2] Then EPA refers sites warranting long-term cleanup to its remedial program or to state programs. EPA's National Priorities List (NPL) is a list of sites the Agency is targeting for further investigation and possible remediation through the Superfund program. Once EPA places a site on the NPL, the Agency studies the contamination, identifies technologies that could address the material and evaluates alternative cleanup approaches. EPA then proposes a cleanup plan, and after collecting public input, it issues a final cleanup plan and cleans up the site or oversees cleanup activities. EPA has placed 120 sites in Region 1 on the NPL.

Whenever possible, EPA seeks to integrate reuse priorities into site cleanup plans. In Region 1, over 60 NPL and non-NPL Superfund sites are in use, including federal facility and removal action cleanup sites. These sites have either new uses in place or uses that remain in place from before cleanup. Many of these sites have been redeveloped for commercial, industrial and residential purposes. Others have been redeveloped for recreational, ecological or agricultural purposes. Businesses and other organizations also use all or parts of other sites for historical memorials and vehicle parking. The following sections take a closer look at the beneficial effects of businesses operating on current and former Superfund sites.

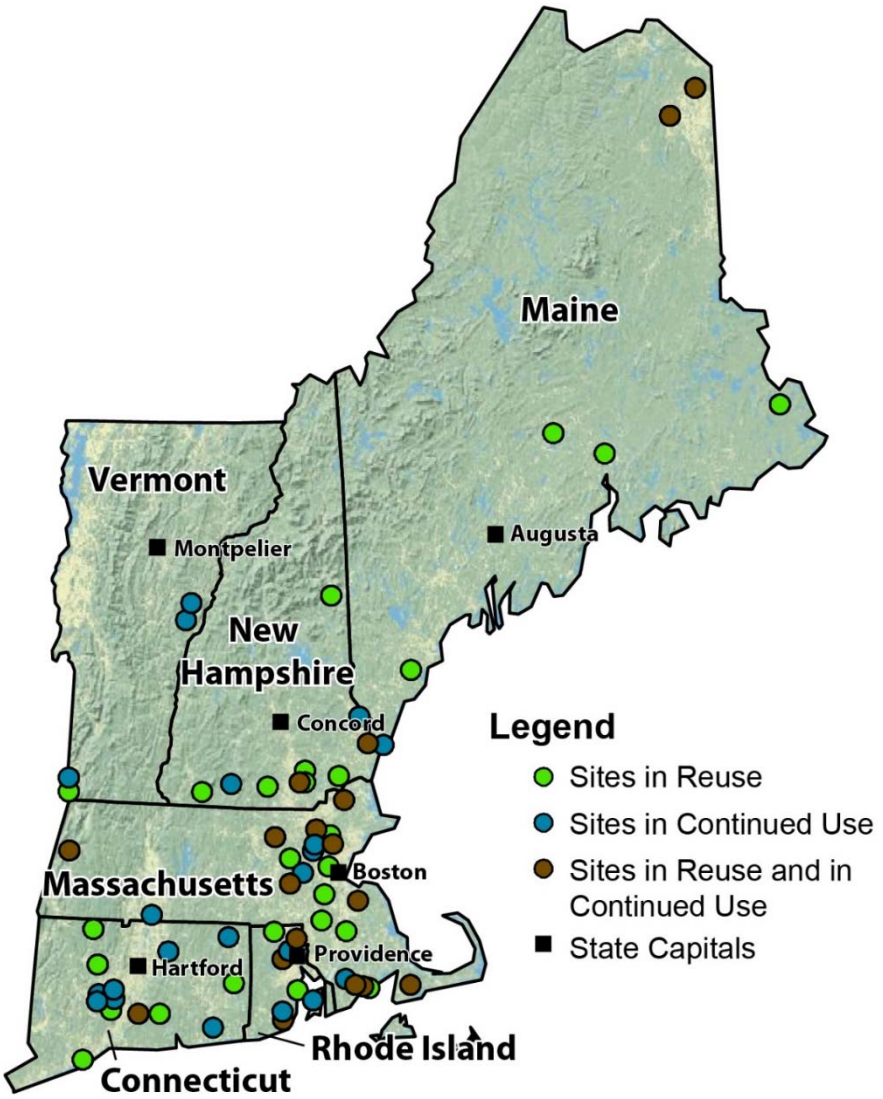



Figure 4. Sites in reuse and continued use in Region 1

## *Enabling Reuse at Removal Action Sites*

EPA is committed to incorporating reuse plans into removal action cleanups. In EPA Region 1, removal action sites are now being used as parks, a tree farm, a supermarket, a museum, a hotel, and a manufacturing operation. Developers and other parties are evaluating reuse options at other sites where EPA has recently completed removal actions. See profiles of removal action sites in reuse in Appendix A.



Figure 5. In 2013, EPA initiated a removal action cleanup at the Former Lawrence Metals site in Massachusetts. In 2017, a hotel was built on the site.

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

# Beneficial Effects of Superfund Site Reuse in Region 1

## *Businesses and Jobs*

EPA has collected economic data for nearly 290 businesses, government agencies and civic organizations operating on 27 NPL sites and two non-NPL sites in reuse and continued use in Region 1.[3] (See the State Reuse Profiles on pages 17-22 for each state's reuse details.) Businesses and organizations located on these sites fall within several different sectors, including manufacturing, professional, medical and nursing care services, technical services, service and hospitality, and retail trade.



Figure 6. Tinkham Garage site (New Hampshire)

Some businesses and organizations at current and former Region 1 Superfund sites such as the Raymark Industries, Inc. site are large retail operations like Home Depot and Wal-Mart that each employ between 100 and 200 people. Other sites are home to manufacturing and production operations such as the Linemaster Switch Corporation, Elkay Plastics and General Dynamics Advanced Information Systems, Incorporated. Hope Global, a manufacturing corporation specializing in engineered textiles for automotive, commercial and industrial use, has continued operating its international headquarters at the Peterson/Puritan, Inc. site in Rhode Island.

## Sites in Reuse and Continued Use: A Closer Look

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

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

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

### *Region 1 Site Examples*

- ***In Reuse:*** Tinkham Garage (*New Hampshire*) – a former septic waste disposal site is now a commercial shopping center and a senior housing development.
- ***In Continued Use:*** Tansitor Electronics, Inc. (*Vermont*) – since 1956, various companies have used the site as a manufacturing facility for electronic capacitors.
- ***In Reuse and Continued Use:*** Durham Meadows (*Connecticut*) – Durham Manufacturing Company continues to operate on site; cleanup allowed the development of commercial businesses, a volunteer ambulance corps and a board of education building.

[3] See footnote 1, page 3.

The businesses and organizations at these sites earn about $1.4 billion in estimated annual sales and employ over 6,200 people earning an estimated $355 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 1 sites in reuse and continued use (2016)**

| | Sites[a] | Sites with Businesses[b] | Businesses[c] | Total Annual Sales[d] | Total Employees | Total Annual Employee Income |
|---|---|---|---|---|---|---|
| In Reuse | 26 | 12 | 86 | $458 million | 2,068 | $95 million |
| In Continued Use | 21 | 6 | 31 | $146 million | 908 | $59 million |
| In Reuse and in Continued Use | 18 | 11 | 170 | $782 million | 3,234 | $201 million |
| **Total** | **65** | **29[e]** | **287** | **$1.4 billion** | **6,210** | **$355 million** |

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



Figure 7. In 2017, the Blackburn & Union Privileges site (Massachusetts) is being redeveloped as a police station. There are also plans for a senior center.

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

## *Property Values and Property Tax Revenues*

Properties cleaned up under the Superfund program and returned to use have the potential for significant increases in value. This increased value can boost property tax revenues, which help pay for local government operations, public schools, transit systems and other public services. Site properties at the Wells G&H site in Massachusetts are now valued at over $178 million.

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

EPA has collected property value and tax data for 18 Superfund sites in reuse and continued use in Region 1.[5] These sites span 528 property parcels and 2,043 acres. They have a total property value of over $643 million. The average total property value per acre is $315,000.

Land and improvement property value information is available for 17 sites. These properties have a total land value of $216 million and a total improvement value of $344 million. Property tax information is available for nine sites.[6] The properties generate a combined $3 million in local property taxes annually.

**Region 1 Sites in Reuse and Continued Use: Property Value and Tax Highlights**

Total Property Value
$643 million

Total Annual Property Taxes
$3 million

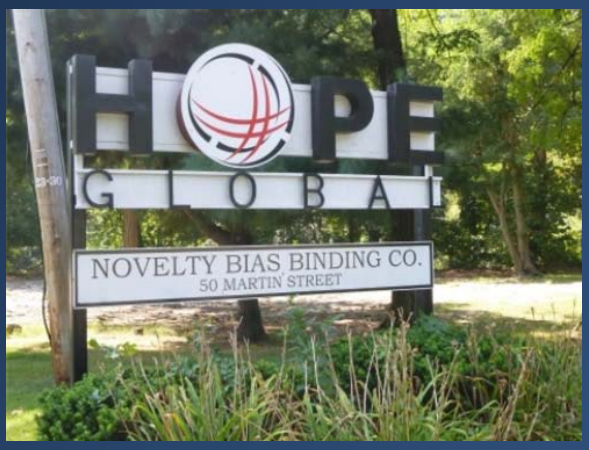



Figure 8. Hope Global, active business at the Peterson Puritan site (Rhode Island)

**Table 2. Property value and tax information for sites in reuse and continued use in Region 1[a]**

| Total Land Value (17 sites)[b] | Total Improvement Value[c] (17 sites) | Total Property Value (18 sites) | Total Property Value per Acre (18 sites)[d] | Total Annual Property Taxes (9 sites) |
|---|---|---|---|---|
| $216 million | $344 million | $643 million | $315,000 | $3 million |

[a] Results are based on an EPA SRI effort in 2017 to collect on-site property values and property taxes for a subset of Superfund sites. The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2013 to 2017. For additional information, see the "Sources" section of this profile.
[b] Detailed (land and improvement) property value data as well as tax data were not available for every site.
[c] Land and/or improvement value for one of the sites is listed as $0.
[d] Based on total property value amount of $643 million divided by total acreage of 2,043.

[5] There are 47 additional sites in reuse or continued use in Region 1 for which EPA does not have property value data and 56 sites in reuse or continued use that do not have tax data, including 14 NPL federal facilities.
[6] Property values consist of land value and the value of any improvements (buildings and infrastructure) placed on a property. When sites are reused, some or all of these improvements may be new or already be in place. In some cases, the breakdown showing both the land value and improvement value is not always available; instead, only the total property value may be available.

## *Alternative Energy Projects in Region 1*

In recent years, there has been considerable interest in Region 1 in creating alternative energy projects on Superfund and other contaminated sites. Alternative energy projects can provide a range of beneficial effects. Across Region 1, a range of efforts have encouraged opportunities for alternative energy project development on current and formerly contaminated lands, landfills, mine and federal facility sites. Projects in place or under development are supplying electricity to the grid or using alternative energy systems to directly power cleanup equipment or offset grid-supplied power used for site cleanup activities. Examples of alternative energy projects in Region 1 are included below.

Since 2013, a 3.5-megawatt ground-mounted solar array has operated on the **Groveland Wells** site in Massachusetts, powering more than 500 homes.

In 2014, a 37.5-megawatt biomass facility began operations on the **Gallup's Quarry** site in Connecticut. The plant uses waste wood to generate enough electricity to power the equivalent of about 40,000 homes in Plainfield.

In the spring of 2014, two 500-kilowatt solar projects began operating on the roofs of two industrial buildings at the **Peterson/Puritan, Inc. site** in Rhode Island. EPA evaluated the minor trenching necessary for the installations to make sure it would not affect ongoing cleanup activities.

In the summer of 2014, a 6-megawatt solar array was activated at Shaffer Landfill – a 25-acre portion of the **Iron Horse Park** site in Massachusetts. Since then, a second 6-megawatt solar array was constructed on the site, providing a total of 12 megawatts in generating capacity. The solar facilities allow the town of Billerica to gain significant long-term energy cost savings.

In the fall of 2014, a 1.8-megawatt solar project began operating on the capped area of the Sullivan's Ledge Landfill site in Massachusetts. The city of New Bedford buys energy generated from the solar arrays, which enables the city to increase its use of renewable energy sources and save 30 percent on municipal electricity bills. In addition, a 200-kilowatt solar facility was constructed at the **Re-Solve, Inc.** site in Massachusetts to fully power the on-site groundwater treatment plant.

In 2016, Citizens Energy Corporation completed construction of a 3.6-megawatt solar photovoltaic facility on the **Charles-George Reclamation Trust Landfill** site in Massachusetts.

In 2017, a private developer completed the construction of a 4.9-megawatt solar project on the **Elizabeth Mine** site in Vermont, and will produce enough power for about 1,200 homes. In addition, the town of Concord completed the construction of a 4.5-megawatt solar photovoltaic facility on the **W.R. Grace** site in Massachusetts, and will provide approximately 5 percent of the town's power needs.

In late 2017 or 2018, solar facilities are scheduled for construction at the **Rose Hill Landfill** site (4.5-megawatts) and **West Kingston Dump/URI** site (3.9-megawatts) in Rhode Island, and **Somersworth Landfill** site in New Hampshire.

At the **Otis Air National Guard Base/Camp Edwards** site, 4.5 megawatts of wind energy help to power the daily treatment of more than 10 million gallons of contaminated groundwater at the installation. Through a net metering program with a local utility, the three wind turbines help offset electricity costs and air emissions attributed to groundwater cleanup activities by 100 percent. The turbines are expected to result in $1.5 million in annual electricity cost savings for the U.S. Air Force.

# Reuse in Action

## *Gallup's Quarry – New Biomass Facility*

The Gallup's Quarry Superfund site is a 29-acre abandoned gravel pit in Plainfield, Connecticut. During the 1970s, the site owner accepted chemical wastes without a permit. Disposal activities led to site soil and groundwater contamination. After the Connecticut Department of Environmental Protection removed waste drums and contaminated soil, EPA placed the site on the NPL in 1989. EPA's cleanup plan includes monitoring of natural processes to clean up groundwater and land use restrictions. Long-term soil, sediment and groundwater monitoring are ongoing.



Figure 9. Biomass facility at the Gallup's Quarry site (Connecticut) *(Photo credit: Greenleaf Power LLC)*

Today, the Plainfield Renewable Energy biomass facility is located on site. The facility became fully operational in 2014. The 37.5-megawatt power plant uses waste wood to generate enough electricity to power the equivalent of about 40,000 homes in Plainfield. Connecticut Light & Power purchases 80 percent of the generated energy under a 15-year agreement with the facility owner, while the remaining energy contributes to the regional renewable energy certificate market. Greenleaf Power LLC bought the plant in 2015 and is now in charge of plant operations.

## *Solvents Recovery Service of New England – New Rails-to-Trails Bike Path and Parking for Recreational Use*

The Solvents Recovery Service of New England Superfund site is located in Southington, Connecticut. The site includes a 4-acre former operations area and a 42-acre groundwater contamination plume. From 1955 until 1991, a hazardous waste treatment and storage facility operated at the site. During operations, spills occurred and operators stored process wastes in unlined lagoons. These practices resulted in soil and groundwater contamination. In 1979, the town of Southington discovered contamination in two public water supply wells downgradient of the site. The town closed these wells.



Figure 10. Trail and signage at the Solvents Recovery Service of New England site (Connecticut) *(Photo credit: de maximis, inc.)*

EPA placed the site on the NPL in 1983. EPA conducted short-term cleanup activities to remove 19 drums of contaminated materials. Cleanup activities also include treating groundwater, consolidating and capping contaminated soil, monitoring, and restricting groundwater and land use. Cleanup is ongoing.

The U.S. Fish and Wildlife Service used funds from potentially responsible parties to restore ecological habitat, including waterways and natural resources affected by the site. In September 2017, construction was completed for a new section of the nearly 80-mile-long Farmington Canal Heritage Trail, which runs across the site, and a trail access parking lot.

## *Blackburn & Union Privileges – New Police Station*

The Blackburn & Union Privileges Superfund site is located in Walpole, Massachusetts. Industrial and commercial processes on the site using chromium, arsenic, and mercury date back to the 1600s. Between 1891 and 1915, the site was used for manufacture of tires, rubber goods and insulating materials. The crushing of raw asbestos in the manufacture of brake and clutch linings occurred at the site between 1915 and 1937. Various cotton and fabric production processes were conducted at the site from 1937 until 1985 when the facility was abandoned. Industrial operations contaminated soil, sediment and groundwater.



Figure 11. Construction of a police station on the Blackburn & Union Privileges site (Massachusetts)

EPA placed the site on the NPL in 1994. In 1999, EPA entered into a settlement with parties to perform the remedial investigation and feasibility study. EPA approved the site's cleanup plan in 2008. The cleanup decision divides the site into four management units requiring: excavation and dredging with off-site disposal of contaminated soil and sediment; extraction and treatment of contaminated groundwater; and institutional controls and long-term monitoring. In 2010, EPA entered into a settlement with the parties to design and perform the site's cleanup. Cleanup construction began in 2015. The town took the property over for unpaid taxes. A police station is currently being constructed on site, with EPA oversight. A senior center is planned for 2018.

## *Elizabeth Mine – New Solar Facility*

The Elizabeth Mine Superfund site is located in Strafford and Thatford, Vermont. The site contains waste rock, roast beds and mine tailings left behind after 150 years of mining activity. Mining wastes contaminated groundwater, soil and sediment with heavy metals and acid-rock drainage. Mining wastes also contaminated the adjacent West Branch of the Ompompanoosuc River, Lord Brook and two tributaries.



Figure 12. Solar array on the Elizabeth Mine site (Vermont) *(Photo credit: Weston and Sampson, Conti Solar, and Elizabeth Mine Solar I, LLC)*

EPA placed the site on the NPL in June 2001. In 2005, EPA stabilized the tailing pile with soil and repaired the tailing dam, preventing the release of large quantities of mining waste and potential catastrophic loss of life and property downstream. EPA built a water treatment system in 2008. EPA consolidated and covered the mining waste in 2012 with reuse in mind. During cleanup, EPA restored 10 acres of wetland for ecological reuse. In 2014, the U.S. Army Corps of Engineers Sustainability Award Program presented the Green Dream Team Award to the Elizabeth Mine Superfund Site Project Delivery Team for wetland restorations at the site. As a result of the cleanup, the state of Vermont delisted the West Branch of the Ompompanoosuc River and Lord Brook from the Clean Water Act's impaired waters list.

In 2017, a private developer installed a 4.9-megawatt solar array on the radiated tailings pile, which will supply energy to the Green Mountain Power grid and produce enough power for about 1,200 homes annually.

## *Fletcher's Paint Works & Storage – New Recreational Use*

The Fletcher's Paint Works & Storage Superfund site is located in Milford, New Hampshire. A paint manufacturing plant and retail outlet operated on site from 1949 to 1991. In 1982, the New Hampshire Department of Environmental Services (NHDES) inspected the facility. NHDES found leaking and open drums on site. NHDES also found site-related contamination in the Keyes Municipal Water Supply Well next to the site.



Figure 13. Recreational use area at the Fletcher's Paint Works & Storage site (New Hampshire)

EPA placed the 2-acre area on the NPL in 1989. Past cleanup efforts include building demolition, drum removal, fencing, temporary cover installation, removal of contaminated soil from residential properties, and placement of a temporary liner and gravel cover over highly contaminated areas. In 1996, at the request of the town of Milford, the potentially responsible party removed soil with low levels of contamination at the Elm Street Area of the site to allow for construction of a Korean War Memorial. In 2017, construction activities were completed, which included the Mill Street Area soil excavation, backfilling of the area with clean soil and a grass cover, and relocation of Mill Street over part of the area for better local traffic management. In addition, construction activities at the Elm Street Area include soil excavation, an engineered soil and grass cover permitting recreational use, and an asphalt cover over select areas providing the town with additional parking for nearby Keyes Recreational Field. Groundwater monitoring is ongoing.

## *Kearsarge Metallurgical Corporation – New Commercial and Industrial Uses*

The 9-acre Kearsarge Metallurgical Corporation (KMC) Superfund site is located in Conway, New Hampshire on the north shore of Pequawket Pond. From 1964 until 1982, KMC manufactured stainless steel valves and other material on site. Facility operations resulted in the disposal of hazardous wastes in waste piles on site, the discharge of waste solvents into the on-site septic system as well as storage of wastes in rusted drums. These practices resulted in the contamination of site groundwater and soils.



Figure 14. The Kearsarge Metallurgical Corporation site is being reused for commercial purposes (New Hampshire)

EPA added the site to the NPL in 1984. Cleanup included the removal of waste pile materials, other contaminated source materials and contaminated soils, and operating a groundwater treatment plant until 2005. Groundwater monitoring continues.

After seeing the site sit idle for decades, the town of Conway was eager to see the site returned to productive use. In order to consider the site's future use in the cleanup process, EPA completed a reuse assessment for the site in 2004. The assessment found the site would likely support commercial or industrial uses.

The town of Conway took ownership of the site in 2012 and began marketing the site shortly after. In 2013, the town sold the site property to a new owner who began to transform the site into productive use by restoring the original KMC buildings. Today, the site supports three businesses – a towing company, a heating business and a farm equipment and diesel truck repair facility. These businesses provide nearly $315,000 in estimated annual employee income and generate over $400,000 in annual sales.

## *Raymark Industries, Inc. – Commercial Shopping Center*

The Raymark Industries, Inc. (Raymark) Superfund site includes over 500 acres near the Housatonic River in Stratford, Connecticut. From 1919 until 1989, Raymark and its predecessors manufactured automotive brakes, clutch parts and other friction components on a 34-acre area. The facility disposed of its manufacturing wastes and wastewater in lagoons on the facility property. Raymark also used industrial waste as fill material to cover wetlands to expand the factory. These practices contaminated site groundwater and soil with asbestos, polychlorinated biphenyls, volatile organic compounds and metals.




Figure 15. Site cleanup allowed the development of the Stratford Crossing Shopping Center (Connecticut)

EPA added the site to the NPL in 1995. Cleanup activities included decontamination and demolition of buildings, removal of contaminated groundwater, capping of soils and institutional controls.

After cleanup was complete, the site property was put up for sale at a bankruptcy auction in 2000 and was acquired by a consortium of companies. EPA had deemed the site safe for commercial use due to the permanent capping over the entire site. In 2002, these companies began construction on the Stratford Crossing Shopping Center. Construction finished in 2005.

Today, the shopping center is a bustling commercial area that is home to several regional and national companies – Walmart, Home Depot, ShopRite, Subway and Webster Bank. Together, these and other on-site businesses employ an estimated 429 people, contribute over $12 million in estimated annual employee income and generate $101 million in estimated annual sales. The 2016 appraised values of site properties exceeded $108 million, resulting in over $2 million in local property taxes.

## *Peterson/Puritan, Inc. – Residential, Recreational and Continued Industrial Use*

The 500-acre Peterson/Puritan, Inc. site is located in Lincoln and Cumberland, Rhode Island. The site spans two miles of residential and industrial spaces along the banks of the Blackstone River. The site includes the Blackstone River State Park, which is a key part of the larger Blackstone River Valley National Heritage Corridor, and is now a national park. Improper waste handling, chemical spills and disposal of hazardous wastes resulted in contamination on site.



Figure 16. The bike path that was constructed beside the Blackstone River and Canal using a portion of the Peterson/Puritan site (Rhode Island)

EPA added the site to the NPL in 1983. Cooperation among EPA, the Rhode Island Department of Environmental Management, and other stakeholders resulted in the successful ongoing cleanup and reuse of parts of the site.

Reuse of parts of the site includes improved access and recreation activities on and along the Blackstone River (e.g., a bike path, a museum and a canoe trail) and continued use of an industrial and commercial park. In addition, developers converted a former historic mill near the site into a riverside loft apartment complex. Fifty commercial and industrial businesses are currently located on site. Many of these businesses have remained open throughout the cleanup process, including Hope Global and Dean Warehouse Services, among others, providing jobs and generating sales revenues.

Together, these firms employ over 900 people and contribute an estimated $42 million in annual employment income. The combined appraised value of the parcels on site is $21 million. Efforts at the Peterson/Puritan, Inc. site demonstrate how

integrating remediation and redevelopment can create a wide range of opportunities for communities and bolster economic markets.

## *Iron Horse Park – Continued Commercial and Industrial Uses with New Solar Energy Facility*

The Iron Horse Park site in North Billerica, Massachusetts, is a 553-acre industrial complex. Industrial activities, which began in 1913, included manufacturing, rail yard maintenance, waste storage and landfilling. Operations resulted in soil, groundwater and surface water contamination at the site.

EPA added the site to the NPL in 1984. Site cleanup activities are ongoing. Cleanup activities included removal of contaminated soil, filling areas with clean soil, and closing and capping landfills.

EPA's cleanup activities supported the continued operation of various industrial businesses on site. These include lumber, manufacturing and rail yard maintenance facilities. Together these businesses support over 130 jobs providing nearly $8 million in estimated annual employment income and generate nearly $29 million in estimated annual sales.



Figure 17. Solar array at the Iron Horse Park site (Massachusetts)

Cleanup activities also restored natural marshes and new wetland habitats. In 2012, site stakeholders began a project to place solar panels on a former on-site waste disposal area called Shaffer Landfill. After coordinating with EPA and the state, the town of Billerica signed a payment in lieu of taxes (PILOT) agreement in August 2013. The PILOT agreement guarantees project revenue of nearly $3 million over 25 years. With the agreement in place, construction of the 25-acre solar array began in early 2014.

Urban Green Technologies (UGT), the solar developer, placed 20,000 solar panels over the capped landfill. The project employed about 50 people during construction. EPA worked with UGT to address the engineering challenges of installing solar panels on the sloped landfill while ensuring the landfill cap remained intact. In 2014, EPA recognized the project team, including the town of Billerica, UGT and the investment company Capital Dynamics, with Region 1's first Excellence in Site Reuse award. In 2017, another 6-megawatt, 25-acre solar facility was constructed on site, bringing the total power at the site to 12 megawatts. Part of the facility is located on one of the closed Iron Horse Park landfills. UGT was the solar developer for the project, working with Pan Am Railways (the property owner) and the town of Billerica and coordinating with EPA and the state to make sure the installed facility would not negatively impact the landfill.

## *31 Water Street – New Community Park and Historic Museum*

The 31 Water Street site is located next to the Back and Powwow rivers in Amesbury, Massachusetts. Several industrial operations contaminated site soils and surrounding surface waters. The city of Amesbury discovered the contamination during initial revitalization efforts for the historic Amesbury Wharf building area, where the site is located. Cleanup activities included the removal of contaminated soils and riverbank stabilization and finished in 2015. The site, part of the community's Lower Millyard Project, is now home to Heritage Park and the Amesbury Carriage Museum. Funding from the Commonwealth of Massachusetts and EPA's Superfund Removal Program facilitated the site's cleanup and redevelopment. The park provides residents and visitors with a recreation resource next to the Pow Wow River. The museum showcases historic horse-drawn carriages, sleighs and automobiles. At a ceremony marking the completion of the Lower Millyard Project, Amesbury's mayor issued a proclamation thanking EPA for its assistance.



Figure 18. 31 Water Street site (Massachusetts)

## *A Closer Look at Redevelopment at Federal Facility Sites*

EPA Region 1 provides cleanup oversight and support at numerous federal facilities across New England. EPA works with the Department of Defense to:

- Ensure appropriate plans are in place for site cleanup and long-term monitoring.
- Provide cleanup oversight.
- Assist with cleanup actions when appropriate.

Cleanups of federal facilities are often very complex, involving numerous parties to address contamination across very large areas. At federal facilities that remain operational, EPA works with all appropriate parties to minimize the impact of cleanup activities on military operations.

At federal facilities identified for closure or new missions, where appropriate, EPA works with federal, state and local parties to ensure cleanup efforts align with redevelopment plans. Federal facility sites that have undergone closure are being used for a wide-range of new uses from large-scale business parks and industrial complexes to cultural centers and parks. These uses provide benefits for communities negatively affected by closures. Here are a few examples:

EPA placed the **Loring Air Force Base** in Maine on the NPL in 1990. While cleanup and investigations continue, the Loring Development Authority has worked with the U.S. Air Force and EPA to establish the Loring Commerce Center, an industrial complex, aviation center and business park. Private businesses and federal agencies in the commerce center provide employment and income for the surrounding community.

EPA placed the 9,000-acre **Fort Devens** in Massachusetts on the NPL in 1989. While cleanup and investigations continue, a successful partnership between EPA, the Department of Defense, the U.S. Army, the state of Massachusetts and MassDevelopment contributed to increased employment opportunities as well as increased revenue for the local community. Over 100 establishments are currently operating, including warehouses and distribution centers, manufacturing and industrial space, and research and development facilities. Redevelopment also includes 100 housing units, with ongoing construction of additional housing, and expansion of the Oxbow National Wildlife Refuge.

EPA placed the **Pease Air Force Base** in New Hampshire on the NPL in 1990. The U.S. Air Force continues investigations and is constructing treatment systems for contaminated groundwater. The site is now home to a public airport, the Great Bay National Wildlife Refuge and the Pease International Tradeport, which includes about 250 businesses and employs over 9,000 people. It also supports continued military uses.

EPA placed the **Davisville Naval Construction Battalion Center** in Rhode Island on the NPL in 1989. Although some cleanup continues, efforts to reuse the site have been very successful. Almost 100 companies are located on site, employing about 2,600 people. Park and recreational land for the local community has been created. The site is also the cornerstone of the Quonset Business Park, which is home to 200 companies employing over 10,000 people.

More summary profiles of federal facilities in reuse and continued use are available in Appendix A.

# State Reuse Profile: Connecticut

EPA partners with the Connecticut Department of Energy & Environmental Protection to oversee the investigation and cleanup of Superfund sites in Connecticut. Connecticut has 14 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 53 business and organizations operating on nine sites in reuse and continued use in Connecticut. The businesses and organizations employ 1,060 people and contribute an estimated $57 million in annual employment income. More information on sites in reuse and continued use in in Connecticut can be found in Appendix A, page A-1.

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

| | Sites[a] | Sites with Businesses | Businesses[b] | Total Annual Sales | Total Employees | Total Annual Employee Income |
|---|---|---|---|---|---|---|
| In Reuse | 6 | 4 | 11 | $108 million | 459 | $14 million |
| In Continued Use | 7 | 4 | 27 | $61 million | 401 | $31 million |
| In Reuse and in Continued Use | 1 | 1 | 15 | $23 million | 200 | $12 million |
| **Total** | **14** | **9** | **53** | **$192 million** | **1,060** | **$57 million** |

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

## *Property Values and Property Tax Revenues*

EPA has collected property value data for six Superfund sites in reuse and continued use in Connecticut. These sites span 121 property parcels and 569 acres. They have a total property value of $151 million. Detailed property value information is available for all six sites. Together, the site properties have a total land value of $53 million and a total improvement value of $98 million. Property tax information is available for five of the sites. Properties at these sites generate a combined $3 million in property taxes.

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

| Total Land Value (6 sites) | Total Improvement Value (6 sites) | Total Property Value (6 sites) | Total Annual Property Taxes (5 sites) |
|---|---|---|---|
| $53 million | $98 million | $151 million | $3 million |

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2014 to 2016.

### *Did You Know?*

The Nutmeg Valley Road site in Wolcott, Connecticut, is home to seven businesses including several that provide automotive services. The businesses generate a combined $5.7 million in estimated annual sales and provide an estimated $2 million in annual employment income. Recently, a new commercial building was constructed on site.




Figure 19. Nutmeg Valley Road site (Connecticut)

# State Reuse Profile: Maine

EPA partners with the Maine Department of Environmental Protection to oversee the investigation and cleanup of Superfund sites in Maine. Maine has seven Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for four businesses and organizations operating on three sites in reuse and continued use in Maine. The businesses and organizations employ about 137 people and contribute an estimated $3 million in annual employment income. More information on sites in reuse and continued use in Maine can be found in Appendix A, page A-6.

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

| | Sites[a] | Sites with Businesses | Businesses[b] | Total Annual Sales | Total Employees | Total Annual Employee Income |
|---|---|---|---|---|---|---|
| In Reuse | 4 | 2 | 3 | $28 million | 137 | $3 million |
| In Continued Use | 1 | 0 | 0 | $0 | 0 | $0 |
| In Reuse and in Continued Use | 2 | 1 | 1 | $0 | 0 | $0 |
| **Total** | **7** | **3** | **4** | **$28 million** | **137** | **$3 million** |

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

## *Property Values and Property Tax Revenues*

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

### *Did You Know?*

In 2006, a 20-unit senior housing facility opened on part of the Eastland Woolen Mill site in Corinna, Maine. EPA, the Town of Corinna and the State of Maine also relocated the historic Odd Fellows Building to the site. The building is currently a country store and restaurant. The site is also home to the Town of Corinna War Memorial and a community bandstand.



Figure 20. Eastland Woolen Mill site (Maine)

### *Did You Know?*

Retailer Shaw's Supermarket and Pharmacy operates on the Bangor Gas Works site in Bangor, Maine. The business, which opened in 1994, provides an estimated $3 million per year in employment income.




Figure 21. Bangor Gas Works (Maine)

# State Reuse Profile: Massachusetts

EPA partners with the Massachusetts Department of Environmental Protection to oversee the investigation and cleanup of Superfund sites in Massachusetts. Massachusetts has 22 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 156 businesses and organizations operating on nine sites in reuse and continued use in Massachusetts. The businesses and organizations employ over 3,100 people and contribute an estimated $205 million in annual employment income. More information on sites in reuse and continued use in Massachusetts can be found in Appendix A, page A-10.

**Table 6. Detailed site and business information for Superfund sites in reuse and continued use in Massachusetts (2016)**

| | Sites[a] | Sites with Businesses | Businesses[b] | Total Annual Sales | Total Employees | Total Annual Employee Income |
|---|---|---|---|---|---|---|
| In Reuse | 7 | 3 | 63 | $264 million | 1,169 | $69 million |
| In Continued Use | 5 | 0 | 0 | $0 | 0 | $0 |
| In Reuse and in Continued Use | 10 | 6 | 93 | $516 million | 1,934 | $136 million |
| **Total** | **22** | **9** | **156** | **$780 million** | **3,103** | **$205 million** |

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

## *Property Values and Property Tax Revenues*

EPA has collected property value data for 10 Superfund sites in reuse and continued use in Massachusetts. These sites span 364 property parcels and 1,198 acres. They have a total property value of $471 million. Detailed property value information is available for nine sites. Together, the site properties have a total land value of $156 million and a total improvement value of $232 million. Property tax information is available for two sites. Properties at these sites generate a combined $19,000 in property taxes.

**Table 7. Property value and tax information for sites in reuse and continued use in Massachusetts[a]**

| Total Land Value (9 sites) | Total Improvement Value (9 sites) | Total Property Value (10 sites) | Total Annual Property Taxes (2 sites) |
|---|---|---|---|
| $156 million | $232 million | $471 million | $19,000 |

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2013 to 2017.

### *Did You Know?*

For over 40 years, several businesses manufactured and maintained electrical components at the Norwood PCBs site in Norwood, Massachusetts. Following site cleanup, developers built a sporting good superstore. Monkey Sports opened in 2011 and provides an estimated $560,000 per year in employment income.




Figure 22. Norwood PCBs (Massachusetts)

# State Reuse Profile: New Hampshire

EPA partners with the New Hampshire Department of Environmental Services to oversee the investigation and cleanup of Superfund sites in New Hampshire. New Hampshire has ten Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for ten businesses and organizations operating on three sites in reuse and continued use in New Hampshire. The businesses and organizations employ 717 people and contribute an estimated $30 million in annual employment income. More information on sites in reuse and continued use in New Hampshire can be found in Appendix A, page A-24.

**Table 8. Detailed site and business information for Superfund sites in reuse and continued use in New Hampshire (2016)**

| | Sites[a] | Sites with Businesses | Businesses[b] | Total Annual Sales | Total Employees | Total Annual Employee Income |
|---|---|---|---|---|---|---|
| In Reuse | 6 | 2 | 8 | $58 million | 295 | $8 million |
| In Continued Use | 2 | 1 | 2 | $71 million | 422 | $22 million |
| In Reuse and in Continued Use | 2 | 0 | 0 | $0 | 0 | $0 |
| **Total** | **10** | **3** | **10** | **$129 million** | **717** | **$30 million** |

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

## *Property Values and Property Tax Revenues*

EPA has collected property value data for one Superfund site in reuse in New Hampshire. This site spans two property parcels and 9.4 acres. They have a total property value of $193,000. The site property has a total land value of $43,000 and a total improvement value of $150,000. Property at this site generates $2,100 in property taxes.

**Table 9. Property value and tax information for sites in reuse and continued use in New Hampshire (2016)**

| Total Land Value (1 site) | Total Improvement Value (1 site) | Total Property Value (1 site) | Total Annual Property Taxes (1 site) |
|---|---|---|---|
| $43,000 | $150,000 | $193,000 | $2,100 |

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

### *Did You Know?*

Once a waste disposal location for septic tank truck washing, the Tinkham Garage site in Londonderry, New Hampshire, now supports three retail stores and a restaurant. The businesses employ 287 people and contribute an estimated $8 million in estimated employee income each year.




Figure 23. Ninety Nine Restaurant and Pub (New Hampshire)

# State Reuse Profile: Rhode Island

EPA partners with the Rhode Island Department of Environmental Management to oversee the investigation and cleanup of Superfund sites in Rhode Island. Rhode Island has eight Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 62 businesses and organizations operating on four sites in reuse and continued use in Rhode Island. The businesses and organizations employ over 1,100 people and contribute an estimated $53 million in annual employment income. More information on sites in reuse and continued use in Rhode Island can be found in Appendix A, page A-29.

**Table 10. Detailed site and business information for Superfund sites in reuse and continued use in Rhode Island (2016)**

| | Sites[a] | Sites with Businesses | Businesses[b] | Total Annual Sales | Total Employees | Total Annual Employee Income |
|---|---|---|---|---|---|---|
| In Reuse | 2 | 1 | 1 | $1 million | 8 | $370,000 |
| In Continued Use | 3 | 0 | 0 | $0 | 0 | $0 |
| In Reuse and in Continued Use | 3 | 3 | 61 | $243 million | 1,100 | $53 million |
| **Total** | **8** | **4** | **62** | **$244 million** | **1,108** | **$53 million** |

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

## *Property Values and Property Tax Revenues*

EPA has collected property value data for one Superfund site in reuse in Rhode Island. This site spans 41 property parcels and 266 acres. They have a total property value of $21 million. The site property has a total land value of $7 million and a total improvement value of $14 million. Property at this site generates $320,000 in property taxes.

**Table 11. Property value and tax information for sites in reuse and continued use in Rhode Island (2017)**

| Total Land Value (1 site) | Total Improvement Value (1 site) | Total Property Value (1 site) | Total Annual Property Taxes (1 site) |
|---|---|---|---|
| $7 million | $14 million | $21 million | $320,000 |

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

### *Did You Know?*

Since 1967 the Rose Hill Regional Landfill received domestic and industrial wastes. In 1983, landfill operations ceased, but a transfer station for municipal waste was constructed. The transfer station operated throughout the cleanup process, and is still in operation today.




Figure 24. A transfer station

# State Reuse Profile: Vermont

EPA partners with the Vermont Department of Environmental Conservation to oversee the investigation and cleanup of Superfund sites in Vermont. Vermont has four Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for two businesses operating on one site in continued use in Vermont. The businesses employ 85 people and contribute an estimated $7 million in annual employment income. More information on sites in reuse and continued use in Vermont can be found in Appendix A, p. A-33.

**Table 12. Detailed site and business information for Superfund sites in reuse and continued use in Vermont (2016)**

| | Sites | Sites with Businesses | Businesses[a] | Total Annual Sales | Total Employees | Total Annual Employee Income |
|---|---|---|---|---|---|---|
| In Reuse | 1 | 0 | 0 | $0 | 0 | $0 |
| In Continued Use | 3 | 1 | 2 | $14 million | 85 | $7 |
| In Reuse and in Continued Use | 0 | 0 | 0 | $0 | 0 | $0 |
| **Total** | **4** | **1** | **2** | **$14 million** | **85** | **$7 million** |

[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 sites in reuse or continued use in Vermont.

### *Did You Know?*

In 2014, the U.S. Army Corps of Engineers Sustainability Award Program presented the Green Dream Team Award to the Elizabeth Mine Superfund Site Project Delivery Team for wetland restorations at the site. As a result of the cleanup, the State of Vermont delisted the West Branch of the Ompompanoosuc River and Lord Brook from the Clean Water Act's impaired waters list. In 2017, a 4.9 megawatt solar facility was constructed at the site. The project supplies energy to the Green Mountain Power grid, producing enough power for about 1,200 homes annually.



Figure 25. Elizabeth Mine site (Vermont) *(Photo credit: Weston and Sampson, Conti Solar, and Elizabeth Mine Solar I, LLC)*

### *Did You Know?*

Reuse of the Pownal Tannery site in North Pownal, Vermont, serves the community in several ways. A new wastewater treatment plant now operates on site. The local government was able to adaptively reuse forest beams from a former tannery building on site to build a recycling center and a town equipment shed. The former building area is now used for recreation.



Figure 26. Pownal Tannery site (Vermont)

# Reuse on the Horizon in Region 1

## *Transformation from Contaminated Industrial Land to Mixed-Use Community Asset*

The Wells G&H site is located in Woburn, Massachusetts. In the 19th and much of the 20th centuries, Woburn was home to numerous tanneries and other heavy industries. In 1979, contamination was discovered in two of Woburn's municipal drinking water wells (wells G and H) in a section of the city with a long industrial history. In 1983, EPA placed the wells and the surrounding area on the NPL.

The cleanup and redevelopment of the 330-acre Wells G&H site is a model of cooperation between EPA, state officials and the community. Cleanup activities included treatment of contaminated soils, excavation and removal of contaminated soils, treatment and disposal of sludge debris, and extraction and treatment of source-area groundwater. Though cleanup activities at the site are still ongoing, EPA determined that the levels of soil and shallow groundwater contamination at certain areas of the site were below human health risk for skin contact.




Figure 27. Holland Arena at the Wells G&H site (Massachusetts)

In 2000, EPA awarded the city of Woburn a $55,000 grant to complete a comprehensive Land Use Plan for the site. Three of the site's potentially responsible parties contributed an additional $45,000 for the plan. The city of Woburn Redevelopment Authority worked with community members to develop the Land Use Plan. The Authority completed the final Land Use Plan in 2005, recommending reuse scenarios for three priority site areas. A former ice hockey coach purchased the Aberjona Auto Parts property site area, and proposed to build an ice arena for local hockey leagues. Holland Arena was completed in 2008, and is now the site of youth hockey practices, games and clinics.




Figure 28. Red Robin restaurant at the Wells G&H site (Massachusetts)

The second priority site area addressed by the Land Use Plan was the undeveloped Wells G&H property. The property is about one-third wooded upland and two-thirds shallow marsh wetland, with the Aberjona River flowing through the wetland. The Land Use Plan selected public open space and passive recreation as priority future uses for the property. After cleanup of the area, the city of Woburn officially opened the Aberjona walking tails and open space area in 2016. The area is now a well-established natural area, wetland and recreation resource for members of the community.

Redevelopment is ongoing at the W.R. Grace portion of the site. Developers recently constructed a Red Robin restaurant that opened in December 2016. The development will also include a Chick-fil-A restaurant, a soon-to-be-announced restaurant, and a Homewood Suites hotel. It is anticipated that the new developments will support over 200 jobs and generate significant tax revenue for the city.



Figure 29. Construction of the Homewood Suites hotel at the Wells G&H site (Massachusetts)

## Conclusion

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

The businesses and organizations operating on these sites provide jobs and income for communities. They help generate local and state taxes. Cleanup and redevelopment also helps stabilize and boost property values. There are over 60 NPL and non-NPL Superfund sites in Region 1 that have either new uses in place or uses that have remained in place since before cleanup, including federal facility and removal action cleanup sites. Future uses are planned for many more Superfund sites in Region 1, including at least one site in each of the six Region 1 states. EPA remains committed to working with all stakeholders to support Superfund redevelopment opportunities in Region 1.

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

Across the Northeast, Superfund sites are now home to large commercial and industrial developments, mid-sized developments and small businesses. EPA is committed to working with all stakeholders to support the restoration and renewal of these sites as long-term assets.




Figure 30. Peterson/Puritan, Inc. site (Rhode Island)

### EPA Superfund Site Reuse Resources

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

*EPA Region 1 Superfund Redevelopment Initiative Coordinator*
Joe LeMay | 617 918-1323 | lemay.joe@epa.gov

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

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

# Sources

## Business, Jobs, Sales and Income Information

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

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

Business and employment data used for this profile were collected in 2016. Estimated annual employment income was calculated using 2016 jobs data and BLS average weekly wage data for those jobs from 2015 (the latest available wage data at the time of this profile). All income and sales figures presented have been rounded for the convenience of the reader. Federal facility sites are included in calculations of total sites in reuse or continued use only. Federal facility sites are excluded from all other calculations (i.e., number of sites with businesses, number of businesses, total jobs, total income and total annual sales).

## Property Value and Tax Information

EPA collected on-site property values and property taxes included in this profile for a subset of Superfund sites by comparing available site boundary information with available parcel boundary information and gathering information for selected parcels from county assessor datasets. The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2013 to 2017. All figures presented have been rounded for the convenience of the reader. Federal facility sites are excluded from all property value and tax calculations.

## Reuse in Action

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

***SRI Case Studies***

Industri-Plex. 2014. Reuse and the Benefit to Community: Industri-Plex Superfund Site. Accessed at: semspub.epa.gov/src/document/01/75001172

Kearsarge Metallurgical Corp. 2016. Reuse and the Benefit to Community: Kearsarge Metallurgical Corp. Superfund Site. Accessed at: semspub.epa.gov/src/document/11/196709

Peterson/Puritan, Inc. 2014. Reuse and the Benefit to Community: Peterson/Puritan, Inc. Superfund Site. Accessed at: semspub.epa.gov/src/document/01/75001173

Raymark Industries, Inc. 2016. Reuse and the Benefit to Community: Raymark Industries, Inc. Superfund Site. Accessed at: semspub.epa.gov/src/document/01/75001173

Wells G&H. 2011. Reuse and the Benefit to Community: Wells G&H Superfund Site. Accessed at: semspub.epa.gov/src/document/01/75001174

***Other Resources***

Solar Power World. Massachusetts schools, town cut costs with brownfield solar project. February 23, 2017. Accessed at www.solarpowerworldonline.com/2017/02/massachusetts-schools-town-cut-costs-brownfield-solar-project

# Appendix A: Reuse Summary Profiles

# Connecticut Reuse Summary Profiles

## *National Priorities List Sites*

### Barkhamsted-New Hartford Landfill

The 98-acre Barkhamsted-New Hartford Landfill Superfund site is located in the towns of Barkhamsted and New Hartford, Connecticut. From 1974 until 1988, the unlined landfill accepted municipal and industrial wastes. A barrel-crushing and metal reclamation operation was also active on site. In 1983, a state inspection found leaking drums containing hazardous solvents. Site operations contaminated groundwater.



Figure A-1. Barkhamsted-New Hartford Landfill site (Connecticut)

EPA placed the site on the National Priorities List (NPL) in 1989. In the fall of 1999, the landfill owner installed a cap, a runoff and landfill liquid collection and treatment system, and a landfill gas capture system. Natural processes that break down contaminants are addressing groundwater contamination. The groundwater remedy includes long-term monitoring of groundwater, surface water and sediment as well as restrictions to prevent contact with contaminated groundwater. Today, site uses include a waste transfer station, a recycling area, and maintenance and office buildings.

### Cheshire Ground Water Contamination

The 15-acre Cheshire Ground Water Contamination Superfund site is located in Cheshire, Connecticut. From 1966 to 1980, two companies made plastic molding on site. Operations contaminated soil and groundwater with chemicals and solvents. In 1990, EPA placed the site on the National Priorities List (NPL). Cheshire Associates, under state and EPA orders, cleaned up the site by removing some contaminated soil. EPA extended the public water supply to residents with drinking water wells affected by site contamination. Carten Controls relocated to the site in 1996. After cleanup, EPA took the site off the NPL in 1997. Carten Controls continues to operate its semiconductor parts manufacturing facility on site.




Figure A-2. Carten Controls facility at the Cheshire Ground Water Contamination site (Connecticut) *(Google Map Data @2017 Google)*

### Durham Meadows

The Durham Meadows Superfund site is located in Durham, Connecticut. Merriam Manufacturing Company and Durham Manufacturing Company made metal cabinets, boxes and other items on site from 1851 until 1998. Improper storage and disposal practices contaminated site soil and groundwater. In 1982, the Connecticut Department of Energy and Environmental Protection (CT DEEP) found contamination in nearby private drinking water wells. Merriam Manufacturing Company and Durham Manufacturing Company installed filters on affected residential wells.




Figure A-3. Durham Meadows site (Connecticut) *(Google Map Data @2017 Google)*

EPA placed the site on the National Priorities List (NPL) in 1989. Cleanup activities include providing an alternate water supply for affected residents, removing soil, and monitoring and containing groundwater contamination. Cleanup also includes placing restrictions on land and groundwater use and investigating areas with possible indoor air risks. Cleanup of the Merriam Manufacturing Company area of the site is now complete. The town of Durham put an area-wide groundwater use restriction ordinance in place in 2015. Plans for the alternative water supply and cleanup of the Durham Manufacturing property are complete; construction is expected to begin in 2018. CT DEEP and

EPA are working with the responsible parties and local officials to put final land and groundwater use controls in place. The Durham Manufacturing Company continues to make metal boxes on site. Commercial and public service reuses are also present on site. The site is home to a volunteer ambulance corps, the District Board of Education, churches and many businesses.

**Gallup's Quarry**

The Gallup's Quarry Superfund site is a 29-acre abandoned gravel pit in Plainfield, Connecticut. During the 1970s, the site owner accepted chemical wastes without a permit. Disposal activities led to site soil and groundwater contamination. After the Connecticut Department of Environmental Protection removed waste drums and contaminated soil, EPA placed the site on the National Priorities List (NPL) in 1989. EPA's cleanup plan includes monitoring of natural processes to clean up groundwater and land use restrictions. Long-term soil, sediment and groundwater monitoring are ongoing.



Figure A-4. Greenleaf biomass facility at the Gallup's Quarry site (Connecticut) *(Photo credit: Greenleaf Power LLC)*

Today, the Plainfield Renewable Energy biomass facility is located on site. The facility became fully operational in 2014. The 37.5-megawatt power plant uses waste wood to generate enough electricity to power the equivalent of about 40,000 homes in Plainfield. Connecticut Light & Power purchases 80 percent of the generated energy under a 15-year agreement with the facility owner, while the remaining energy contributes to the regional renewable energy certificate market. Greenleaf Power bought the plant in 2015 and is now in charge of plant operations. As of December 2016, this business employed three people and generated an estimated $1.5 million in annual sales revenue.

**Kellogg-Deering Well Field**

The Kellogg-Deering Well Field Superfund site is located in Norwalk, Connecticut. The site consists of a 10-acre municipal well field and the adjacent area that contributes to the well field contamination. Since 1955 the city of Norwalk has operated four municipal supply wells on site. During routine sampling in 1975, the city found elevated levels of trichloroethylene (TCE) at the well field. Afterwards, the city shut down wells with unacceptable levels of TCE. Inspections by the Connecticut Department of Energy and Environmental Protection (CT DEEP) between 1975 and 1980 found several hazardous chemicals in site groundwater and soils.



Figure A-5. Commercial space and groundwater treatment building at the Kellogg-Deering Well Field site (Connecticut)

EPA placed the site on the National Priorities List (NPL) in September 1984. Cleanup included installing a wellhead treatment facility to allow continued use of the well field, soil vapor treatment, groundwater extraction and treatment, and institutional controls. Routine maintenance and monitoring activities are ongoing. A supplemental investigation identified the primary source of contamination, located about a half-mile east of the well field. Cleanup of source-area soils and groundwater began in 1996. Soils met cleanup goals in 2006. Groundwater remediation is ongoing. The municipal well field continues to operate and provides water to about 45,000 residents in Norwalk. Commercial and residential uses remain on site. Commercial uses include office space, a shopping plaza, a car wash and a restaurant.

**Linemaster Switch Corporation**

The 45-acre Linemaster Switch Corporation Superfund site is located in Woodstock, Connecticut. Electrical and pneumatic foot switches and wiring harness manufacturing has occurred on site since 1952. Site operations use chemicals, paint and thinners. Past operation practices resulted in groundwater, sediment, surface water and soil contamination.

In 1990, EPA added the site to the National Priorities List (NPL). Cleanup activities include soil and groundwater treatment. The groundwater treatment system remains in operation. Today, the Linemaster Switch Corporation continues to

manufacture electrical power switches, air valves, electrical cord sets and metal name plates on site. Several residences, a banquet facility, a restaurant and an inn are also located on site.

**Nutmeg Valley Road**

The 28-acre Nutmeg Valley Road Superfund site is located in Wolcott, Connecticut. Beginning in the 1940s, metalworking and finishing shops operated on site. Two of these shops disposed of chemicals in site soils. These improper disposal practices contaminated private drinking water wells near the site. In 1989, EPA placed the site on the National Priorities List (NPL). In 1992, an emergency cleanup action addressed surface soil contamination and a potential source of groundwater contamination. After the cleanup action, groundwater studies found contaminant levels were naturally decreasing. The studies also found no evidence of widespread groundwater contamination. EPA took the site off the NPL in 2005.




Figure A-6. New building at the Nutmeg Valley Road site (Connecticut)

Industrial, commercial and some residential uses are ongoing at the site. To further revitalize the area, the town of Wolcott made infrastructure improvements to area roads and offered visual enhancement incentives such as debris pickup and free paint for property owners. Local officials point to site improvements and the site's removal from the NPL as factors that led to the construction of a $2 million state-of-the-art greenhouse next to the site. The town of Wolcott expects these factors to encourage additional commercial and industrial development at the site. Recently, a new commercial building for Ultimate Services Professional Grounds Management was constructed at the site.

**Old Southington Landfill**

The 13-acre Old Southington Landfill Superfund site is located in Southington, Connecticut. The municipal landfill operated on site from the 1920s until 1967. Closure activities included compacting loose waste, covering the landfill with clean fill and reseeding the area with grasses. Between 1973 and 1980, the town subdivided and sold the landfill property for residential and commercial development. Construction of several residential homes and commercial business structures took place at the site and nearby. In 1979, sampling by the Connecticut Department of Public Health at Municipal Well #5 near the site found contamination in groundwater. Further investigations found groundwater, soil, sediment and surface water contamination at the site.



Figure A-7. Northern portion of the capped Old Southington Landfill site used by the community for passive recreation (Connecticut)

EPA placed the site on the National Priorities List (NPL) in 1989. Cleanup activities included permanent relocation of on-site structures, landfill capping and disposal of semi-solid sludge materials in a lined cell beneath the cap. Cleanup also included construction of a passive soil gas collection system that is part of the landfill cap and long-term groundwater monitoring. Land use restrictions are in place for properties near the landfill at potential future risk from contaminated groundwater vapors moving under the buildings.

A park is located on the former residential portion of the site. It provides a recreation area where people can walk their dogs, sit on benches and go canoeing in nearby Black Pond. The U.S. Fish and Wildlife Service will use funds from potentially responsible parties to restore ecological habitat, including waterways and natural resources affected by the site. After completion, trail maintenance work along the Quinnipiac River will allow for additional recreational use.

**Raymark Industries, Inc.**

The Raymark Industries, Inc. Superfund site includes over 500 acres near the Housatonic River in Stratford, Connecticut. From 1919 until 1989, Raymark Industries, Inc. made various parts used primarily in the automotive industry on a 34-acre area.

Disposal of manufacturing wastes took place on the former manufacturing site, on dozens of residential, commercial and municipal properties across town, and in the wetlands next to the Housatonic River. Contaminated groundwater beneath the former facility impacted nearby commercial and residential areas due to the intrusion of vapors into overlying homes and buildings.

EPA placed the site on the National Priorities List (NPL) in 1995. Cleanup activities included removing contaminated soil and waste from several residential properties, capping the former manufacturing property, installing vapor mitigation systems in more than a hundred homes, and temporarily covering and restricting access to other properties. People near the site do not currently use groundwater for drinking purposes.




Figure A-8. Shopping center at the Raymark Industries, Inc. site (Connecticut)

EPA considered reuse in the construction of the cap over the former 34-acre manufacturing property. The cap allowed for redevelopment of the property while ensuring the remedy remained protective. EPA awarded the site a Superfund Redevelopment pilot grant in 2001. The Stratford Crossing Shopping Center, completed in 2002, currently occupies the site. The shopping center provides a mixed green and commercial space. The community enjoys access to several popular businesses including Walmart, Home Depot, ShopRite Supermarket and Webster Bank. Investigation and cleanup activities continue on the other contaminated properties around town. In 2015, local and federal partners including EPA completed a removal action at the Sikorsky Memorial Airport. The cleanup realigned Main Street to facilitate the extension of an airport runway safety zone. In 2015, EPA and the town jointly announced a reuse plan for a former ball field. Waste from several commercial and wetland properties will be consolidated with existing waste at the former ball field and capped. The cap will be designed to support a planned expansion of the Department of Public Works. In 2016, EPA announced their intent to allow a developer to construct part of the cap on a contaminated commercial property that would subsequently be used as a new self-storage facility.

**Scovill Industrial Landfill**

The 25-acre Scovill Industrial Landfill Superfund site is located in Waterbury, Connecticut. From 1919 until the mid-1970s, the Scovill Manufacturing Company used the area as a landfill. By the mid-1990s, developers had built condominiums, apartment buildings, small commercial buildings and a shopping mall on the 18-acre southern portion of the site. The northern portion of the site is an undeveloped 6.8-acre parcel known as the Calabrese parcel. In 1988, residential development underway on the Calabrese parcel uncovered industrial wastes. The Connecticut Department of Energy and Environmental Protection (CT DEEP) subsequently issued a stop-work order and removed 2,300 tons of contaminated soil along with 19 capacitors from the Calabrese parcel. CT DEEP then placed a temporary soil cap over the area and fenced it.



Figure A-9. Scovill Industrial Landfill site (Connecticut)

EPA placed the site on the National Priorities List (NPL) in 2000. In 2004, EPA helped the city of Waterbury with a reuse planning process for the site to develop future land use recommendations for the Calabrese parcel. In 2013, EPA selected the cleanup plan for the site. Cleanup activities include installation of a system to address contaminated vapors from groundwater moving through a building slab on site, targeted excavations in areas exceeding regulatory contaminant levels and placement of that soil under a soil cap on the Calabrese property. Excavated areas will be backfilled with clean fill and restored to original conditions with either new pavement or vegetation. Wetland remediation is also planned. Institutional controls for the entire site will be put in place to ensure public safety. Cleanup design allows for continued residential and commercial use at the site.

**Solvents Recovery Service of New England**

The Solvents Recovery Service of New England Superfund site is located in Southington, Connecticut. The site includes a 4-acre former operations area and a 42-acre groundwater contamination plume. From 1955 until 1991, a hazardous waste treatment and storage facility operated at the site. During operations, spills occurred and operators stored process wastes in unlined lagoons. These practices resulted in soil and groundwater contamination. In 1979, the town of Southington discovered contamination in two public water supply wells downgradient of the site. The town closed these wells.



Figure A-10. Rails-to-Trails path and parking lot at the Solvents Recovery Service of New England site (Connecticut) *(Photo credit: de maximis, inc.)*

EPA placed the site on the National Priorities List (NPL) in 1983. EPA conducted short-term cleanup activities to remove 19 drums of contaminated materials. Cleanup activities also include treating groundwater, consolidating and capping contaminated soil, monitoring, and restricting groundwater and land use. Cleanup is ongoing. The U.S. Fish and Wildlife Service used funds from potentially responsible parties (PRPs) to restore ecological habitat, including waterways and natural resources affected by the site. In September 2017, construction was completed for a new section of the nearly 80-mile-long Farmington Canal Heritage Trail, which runs across the site, and a trail access parking lot.

## *Other Cleanup Sites*

**Higganum Cove**

The 13-acre Higganum Cove site is located off Nosal Road in Haddam, Connecticut. From the 1840s until 1983, various manufacturing operations took place on site. These included dyeing of fabrics and yarn and the production of bridge netting, marine paints and carbonless copy paper. Following reports of inappropriate handling of hazardous substances, Connecticut Department of Energy and Environmental Protection (CT DEEP) performed site inspections from 1983 to 1989. The inspections found site soils and wetlands contaminated with industrial solvents, metals and polychlorinated biphenyls. In 2013, CT DEEP referred the site to EPA for a removal evaluation.



Figure A-11. Park at Higganum Cove (Connecticut) *(Photo credit: CT DEEP)*

After EPA identified the need for a removal action in 2014, EPA began emergency cleanup actions at CT DEEP's request. These actions included excavation and disposal of contaminated soils and wetlands restoration. EPA completed cleanup in late 2015. The cleanup actions facilitated reuse at the site. Through collaboration between EPA, CT DEEP and local officials, the site is now home to a nature park. The park includes hiking trails, picnic tables, a kayak launch and restored wetlands for the public's enjoyment.

**Mitral Corporation**

The 5-acre Mitral Corporation site is located in Harwinton, Connecticut. Between the mid-1960s and late-1980s, Mitral Corporation did metal stamping and tooling, tumbling, sanding, degreasing and other machining work on site. Waste materials included used solvents, sludge, waste oil and scrap metal. Connecticut Department of Energy and Environmental Protection (CT DEEP) conducted inspections and subsequently referred the site to EPA for removal evaluation.



Figure A-12. Mitral Corporation site (Connecticut) *(Google Map Data @2017 Google)*

Beginning in 2007, EPA conducted cleanup activities. EPA removed asbestos-contaminated products, demolished an old factory building, removed sludge and storage tanks, removed and treated soil, and treated water. After EPA completed its cleanup in 2009, the site was vacant for five years. In 2012, two residents living next to the site purchased the property. The new owners planted a few hundred evergreen trees and plan to plant additional evergreens to sell as Christmas trees. They are considering selling the trees to benefit the Fidelco Guide Dog Foundation.

# Maine Reuse Summary Profiles

## *National Priorities List Sites*[7]

**Callahan Mining Corp.**

The 50-acre Callahan Mining Corp. Superfund site is located in Brooksville, Maine. Metal mining operations began at the site in 1880 and ended in 1972. In 1975, the Maine Department of Marine Resources studied marine organisms in the adjacent Goose Pond and found elevated levels of metals. The Maine Department Environmental Protection (MEDEP) conducted additional sampling in 1999. The studies found hazardous substances in site soils and nearby residential properties, site groundwater and on-site waste materials.



Figure A-13. Callahan Mine and adjacent marsh (Maine)

EPA placed the site on the National Priorities List (NPL) in 2002. EPA finalized the cleanup plan for part of the site in 2011. From 2010 to 2013, EPA conducted soil cleanup of residential properties and removed contamination from the former Mine Operations Area. Additional cleanup activities include stabilization of the tailings dam and construction of a cover system for the Tailings Impoundment. These activities are expected to begin in 2018. Ongoing design work is focused on the disposal of contaminated materials and sediments in an underwater containment cell, wetlands restoration, institutional controls and monitoring. Cleanup plans for the rest of the site are yet to be determined.

EPA conducted a reuse assessment for the former Callahan Mine property and Goose Pond. The reuse assessment was based on the goals of the site owner, local regulations, community input and reasonably anticipated future land uses. It recommended a habitat conservation area with potential recreational opportunities for the site. Residents currently use the site for various recreational activities, including hiking, rock collecting and ATV riding.

**Eastern Surplus**

The 5-acre Eastern Surplus Company Superfund site is located along Meddybemps Lake and Dennys River in Meddybemps, Maine. Eastern Surplus, an army surplus and salvage retailer, operated on site from 1946 until the early 1980s. A facility inspection in 1984 found contamination that threatened local active fisheries and spawning areas.



Figure A-14. Eastern Surplus site (Maine)

EPA placed the site on the National Priorities List (NPL) in 1996. To clean up the site, EPA removed contaminated soil and materials and disposed of them off site, and began operating a groundwater treatment system in 2000. Since then, EPA has continued to improve the effectiveness of the groundwater remedy. The groundwater treatment system is currently offline while EPA and the Maine Department of Environmental Protection (MEDEP) evaluate the effects of these improvements. During cleanup, site investigations found Native American artifacts. EPA determined the northern part of the site was eligible for the National Register of Historic Places.

This area, named N'tolonapemk ("Our Ancestor's Place") by the Passamaquoddy Tribe, is now a major archaeological research site. In 2012, parties constructed a commemorative patio and pathway for the area. A seasonal home is located on the southern part of the site. EPA anticipates continued residential, commercial and agricultural use of the southern area.

[7] See the "Federal Facility Sites" section on page A-8 for reuse summaries of federal facility sites on the National Priorities List (NPL).

**Eastland Woolen Mill**

The 22-acre Eastland Woolen Mill Superfund site is located on Main Street in downtown Corinna, Maine. A textile mill operated at the site from 1909 until 1996. Disposal practices resulted in contamination of sediments in the East Branch of the Sebasticook River as well as soil and groundwater. In 1999, EPA placed the site on the National Priorities List (NPL). Cleanup activities included removal of hazardous materials, the mill and contaminated soils. Cleanup activities also included installation of a water line and treatment of contaminated soils and groundwater. EPA's close coordination with the community ensured the productive reuse of the well-located property.



Figure A-15. Eastland Woolen Mill site (Maine)

In 2001, EPA's Superfund Redevelopment Initiative provided a grant to the town of Corinna for a community-based reuse assessment and reuse plan. Based on these plans, a 20-unit senior housing facility opened on part of the site in 2006. EPA, the town of Corinna and the state of Maine also relocated the historic Odd Fellows Building to the site. The building is currently a country store and restaurant. The site is also home to the town of Corinna War Memorial and a community bandstand. A community boardwalk runs through greenspace along the river. The remainder of the site includes commercial, residential and mixed-use development. In 2012, EPA took 80 percent of the site's land area off the NPL after determining cleanup of the areas was complete. This area includes several properties that are currently available for reuse. Site stakeholders hope the area's deletion from the NPL will further clarify the site's cleanup status and help support even more reuse.

**Pinette's Salvage Yard**

The 12-acre Pinette's Salvage Yard Superfund site is located about a mile southwest of Washburn, Maine. In 1979, three electrical transformers broke at the site. Fluids containing hazardous chemicals spilled directly onto the ground. The fluids moved through the soil, contaminating groundwater and surface water.



Figure A-16. Pinette's Salvage Yard site (Maine)

In 1982, EPA placed the site on the National Priorities List (NPL). In 1983, EPA removed some contaminated soil and disposed of it off site. EPA's cleanup plan addressed contaminated groundwater and remaining contaminated soil. After cleanup, EPA took the site off the NPL in 2002. EPA's cleanup plan allowed a vehicle repair and salvage yard to continue operating on site. Today, the vehicle repair and salvage yard business remains active. It stores and dismantles damaged vehicles and sells recovered auto parts.

**Saco Municipal Landfill**

The 90-acre Saco Municipal Landfill Superfund site is located in Saco, Maine. The city of Saco owned and operated the landfill from 1963 to 1989. The site includes four disposal areas. Chemicals and wastes contaminated soil and groundwater at the site. In 1990, EPA placed the site on the National Priorities List (NPL). Under EPA and Maine Department of Environmental Protection (MEDEP) oversight, the city of Saco cleaned up the site. Cleanup activities included removing waste and removing and placing contaminated sediment under a cap. Cleanup also includes monitoring of natural processes to clean up groundwater and restricting land use.




Figure A-17. Saco Municipal Landfill site (Maine) *(Google Map Data @2017 Google)*

In 1998, the city of Saco began planning for site reuse. EPA approved a plan to improve wildlife habitat in the former gravel and sand pit in one of the site's disposal areas. In 2001, the city graded the area, established a vegetative cover, and installed a series of wetland areas next to one of the disposal areas. In 2003, the city completed plans for a community recreation area for hiking, biking, ice

skating and soccer. The city has completed construction of two soccer fields for elementary and middle-school children. Reuse planning is ongoing for unused portions of the site for additional city facilities.

## *Federal Facility Sites*

### Loring Air Force Base

Located in Limestone, Maine, the roughly 9,000-acre Loring Air Force Base was a major Strategic Air Command (SAC) base for the U.S. Air Force for over 40 years, before its closing in 1994. The Base housed a bomber wing and had SAC's largest capacity for weapons and fuel storage. Military operations contaminated soil, groundwater, surface water and sediment across the former base.




Figure A-18. Loring Air Force Base site (Maine) *(Google Map Data @2017 Google)*

EPA added the site to the National Priorities List (NPL) in 1990. Cleanup included waste removal, excavations, landfill capping, institutional controls to prevent uncontrolled use and consumption of groundwater, provisional water supplies, long-term monitoring, and groundwater management zones, with certain cleanup activities and investigations ongoing.

The U.S. Air Force donated the site to the Loring Development Authority, which worked with the U.S. Air Force and EPA to establish the Loring Commerce Center, an industrial complex, aviation center and business park. Private businesses and federal agencies in the commerce center provide employment and income for the surrounding community. Tax credit and exemption programs, such as the Job and Investment Tax Credit and the Research Expense Credit, offer additional incentives to potential new tenants. Redevelopment at the site serves as a success story for other Base Realignment and Closure (BRAC) facilities. As of 2016, 26 businesses were operating on the site. Together, these businesses employ an estimated 1,200 people, contribute over $75 million in annual employment income and generate $36 million in estimated annual sales.[8]

### Portsmouth Naval Shipyard

The 278-acre Portsmouth Naval Shipyard Superfund site is located in Kittery, York County, Maine. The site consists of four islands connected by filled tidal flats. The U.S. Navy uses the Portsmouth Naval Shipyard for naval operations, including construction of ships and submarines. Industrial wastes, including used batteries, asbestos insulation, waste paint, chemical solvents and lead sludge, contaminated soils, groundwater and surface water at the site. This created a potential health risk for the 10,000 people living on and around the site. Contamination also threatened the unique wetlands and rivers around the site.



Figure A-19. Portsmouth Naval Shipyard site (Maine)

In May 1994, EPA added the site to the National Priorities List (NPL). Following the immediate removal of heavily-contaminated storage tanks and containment of those areas with a soil cap, EPA and the U.S. Navy removed localized areas of contaminated soil. They also installed stormwater controls along riverbanks and restored salt water wetlands. The site remains an active U.S. Navy shipyard, with ongoing investigations and compliance monitoring.

[8] 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.

## *Other Cleanup Sites*

**Bangor Gas Works**

From 1852 to 1963, the 6-acre Bangor Gas Works site operated as a coal gasification plant in Bangor, Maine. The extracted gas provided the city of Bangor with electricity. Operations stored the remaining thick tar waste in large tanks on site. Tar deposits contaminated site soils and sediments of the nearby Penobscot River. After residents reported fumes from sewer lines and tar sheen on the river surface, the city of Bangor acquired the site in 1978. The city removed site structures and extracted and removed some contaminated materials from the site. The city also buried and capped some contaminated materials on site.

Redevelopment activities paved over the capped area for a parking lot. Today, the site operates as commercial space with a 60,000-square foot Shaw's Supermarket, as well as recreational space that connects to the Second Street Community Park next to the site.




Figure A-20. Bangor Gas Works site (Maine)

# Massachusetts Reuse Summary Profiles

## *National Priorities List Sites*[9]

**Atlas Tack Corp.**

The Atlas Tack Corporation Superfund site is located in Fairhaven, Massachusetts. It covers about 48 acres and includes upland areas, wetlands and saltwater marsh. From 1901 to 1985, the Atlas Tack facility made a variety of metal products, including tacks and steel nails, on site. Operations released waste containing acids, metals, and solvents into drains and an unlined lagoon near a marsh area. Waste disposal practices resulted in contamination of soil, surface water, sediment and groundwater.



Figure A-21. Atlas Tack Corp. site (Massachusetts)

In 1990, EPA placed the site on the National Priorities List (NPL). Cleanup activities included demolition of most remaining site structures, removal of contaminated soil, groundwater monitoring and site restoration. EPA completed these activities in 2007; monitoring began in 2008. Restored wetlands and the saltwater marsh now provide habitat for plants, fish and wildlife. Birders frequent the site for bird-watching activities. These Citizen Scientists have recorded several species on site, including the Pie-billed Grebe, the American Bittern and the Least Bittern, which are endangered in the state of Massachusetts. Potential future development at the site could include commercial and industrial reuse of upland areas.

**Blackburn & Union Privileges**

The Blackburn & Union Privileges Superfund site is located in Walpole, Massachusetts. Industrial and commercial processes on the site using chromium, arsenic, and mercury date back to the 1600s. Between 1891 and 1915, the site was used for manufacture of tires, rubber goods and insulating materials. The crushing of raw asbestos in the manufacture of brake and clutch linings occurred at the site between 1915 and 1937. Various cotton and fabric production processes were conducted at the site from 1937 until 1985 when the facility was abandoned. Industrial operations contaminated soil, sediment and groundwater.

EPA placed the site on the NPL in 1994. In 1999, EPA entered into a settlement with parties to perform the remedial investigation and feasibility study. EPA approved the site's cleanup plan in 2008. The cleanup decision divides the site into four management units requiring: excavation and dredging with off-site disposal of contaminated soil and sediment; extraction and treatment of contaminated groundwater; and institutional controls and long-term monitoring. In 2010, EPA entered into a settlement with the parties to design and perform the site's cleanup. Cleanup construction began in 2015. The town took the property over for unpaid taxes. A police station is currently being constructed on site, with EPA oversight. A senior center is planned for 2018.



Figure A-22. Police station under construction at the Blackburn & Union Privileges site (Massachusetts)

[9] See the "Federal Facility Sites" section on page A-17 for reuse summaries of federal facility sites on the National Priorities List (NPL).

**Cannon Engineering Corp. (CEC)**



Figure A-23. Cell phone tower on the CEC site (Massachusetts)

The 6-acre Cannon Engineering Corporation (CEC) Superfund site is located in Bridgewater, Massachusetts. Beginning in the 1970s, CEC transported, stored and burned hazardous wastes at the site. Mishandling of the waste and reporting violations led to the facility closing in 1980. In 1982, the Massachusetts Department of Environmental Protection (MassDEP) removed contaminated sludge and drums from the site.

EPA added the site to the National Priorities List (NPL) in 1983. Cleanup included installation of fencing, soil treatment of lesser-contaminated soils, excavation and disposal of highly contaminated soils, groundwater monitoring, decontamination and removal of contaminated buildings and structures, restoration of wetlands, and institutional controls. CEC completed cleanup in 2013. In the mid-1990s, Osterman Propane Distribution (Osterman) relocated to the former CEC facility. This business is now closed. In 1998, Omnipoint Communications Enterprises began leasing the property and built a cellular communication tower. In 2013, EPA, with concurrence from MassDEP, took the site off the NPL. EPA continues to monitor the site, conducting a review of the cleanup actions every five years to make sure the remedy remains protective of human health and the environment.

**Charles-George Reclamation Trust Landfill**



Figure A-24. Charles George Reclamation Trust Landfill site (Massachusetts)

The 70-acre Charles George Reclamation Trust Landfill Superfund site is located in Tyngsborough, Massachusetts. Initially a small municipal dump, the landfill expanded to accept household and industrial wastes, chemicals containing volatile organic compounds and metal sludge. The state ordered the landfill closed in 1983. Site operations contaminated groundwater.

EPA added the site to the National Priorities List (NPL) in 1983. Cleanup activities included providing a permanent water supply to residents affected by contaminated groundwater, capping the landfill, and collecting contaminated liquid draining from the landfill (leachate), groundwater and landfill gas. The Massachusetts Department of Environmental Protection (MassDEP) operates the landfill gas collection/destruction system, groundwater/leachate collection system and maintains the cap. In 2016, Citizens Energy Corporation completed construction of a 3.56-megawatt solar photovoltaic facility on the landfill.

**Groveland Wells**



Figure A-25. Groveland Wells site (Massachusetts)

The 850-acre Groveland Wells Superfund site is located in Groveland, Essex County, Massachusetts. The former Valley Manufacturing Products Company produced metal and plastic parts on site until 2002. The potentially responsible parties (PRPs) released cutting oils and chlorinated hazardous solvents on site. Additional waste leaked from storage tanks and disposal systems at the facility. Site releases contaminated the town of Groveland's public water supply.

EPA placed the site on the National Priorities List (NPL) in 1982. In late 1987 and early 1988, the PRPs installed and used soil vapor extraction (SVE) to remove contaminants from site soils. The PRPs also installed a small groundwater treatment system in 1988. However, these systems were ineffective. EPA then designed and installed a large groundwater treatment system in 2000. In 2006, EPA removed abandoned underground storage tanks, a former disposal system and contaminated soils from the site. In addition, from 2009 to 2011, EPA designed, installed and operated an electrical resistive heating treatment system to replace the SVE system. Treatment activities were effective and concluded in 2014.

The Groveland Department of Public Works continues to operate on site. In 2012, a 3.6-megawatt solar array was installed on site. It provides power for more than 500 homes. The site remains in continued residential, commercial and industrial use. EPA continues to monitor conditions, conducting a review of the cleanup actions every five years to make sure the remedy remains protective of human health and the environment.

**Hatheway & Patterson**

The 38-acre Hatheway & Patterson Superfund site is located in Mansfield and Foxborough, Massachusetts. The site includes the area where the Hatheway & Patterson Company operated a wood-preserving facility from 1953 to 1993. Releases of chemicals used during these operations resulted in soil and groundwater contamination. It also resulted in contamination of sediment and surface water in the Rumford River's fisheries and surrounding wetlands.



Figure A-26. Hatheway & Patterson site (Massachusetts)

EPA placed the site on the National Priorities List (NPL) in 2002. Cleanup included removal of contaminated soil, capping of a 2-acre area, institutional controls and long-term monitoring of groundwater, surface water, fish tissue and sediment. EPA completed cleanup in 2011. Today, a 119-space commuter parking lot is located on part of the site. It serves the nearby Mansfield commuter rail station. The town of Mansfield also uses part of the site for emergency vehicle storage and a remaining building for office space. The Mansfield portion of the site along County Street in not currently in use.

**Industri-Plex**

The Industri-Plex Superfund site in Woburn, Massachusetts, is located 12 miles outside of Boston. From 1853 to 1969, several manufacturers produced chemicals, insecticides, munitions and glue products at the site. Large waste piles, heavy metals and hazardous chemicals collected on site. This waste resulted in groundwater, surface water, soil and sediment contamination.



Figure A-27. Aberjona Nature Trail (Massachusetts)

In 1983, EPA placed the site on the National Priorities List (NPL). Cleanup included placement of protective covers over contaminated parts of the site, dredging and off-site disposal of contaminated sediments, construction of wetlands, and institutional controls. The covers were compatible with productive reuse of the areas.

During and after initial cleanup activities, several public- and private-sector improvements took place. They included a new interstate highway exchange, public roads, a 200,000-square-foot shopping center, an office park and a hotel complex. Restored wetlands and grass-covered hills provide scenic open space at the site. The site's successful redevelopment was recognized by the prestigious Phoenix Award in 2000. In 2001, the 34-acre, $10 million James Anderson Regional Transportation Center opened at the site. The center relieves congestion on highways leading into Boston and eases commutes for many area residents. In 2008 and 2009, additional redevelopment included a restaurant, a pet supply store and a furniture store. EPA, the state and local government worked with the developer to record property use restrictions, prepare work plans, tear down the existing building and support the property's transformation. An additional phase of cleanup will be completed in 2017. Mitigation projects along the Aberjona River include floodplain enhancements and the Aberjona Nature Trail as well as a fish ladder at the Center Falls Dam in nearby Winchester. EPA continues to support the safe redevelopment of properties at the site including recently proposed mixed-use and residential projects for 2018.

**Iron Horse Park**

The Iron Horse Park Superfund site is a 553-acre industrial complex in Billerica, Massachusetts. Industrial activities, which began in 1913, included manufacturing, rail yard maintenance, waste storage and landfilling. These operations resulted in soil, groundwater and surface water contamination.



Figure A-28. Solar array on Shaffer Landfill at the Iron Horse Park site (Massachusetts)

EPA added the site to the National Priorities List (NPL) in 1984. Cleanup activities are ongoing. Cleanup activities have included removing contaminated soil, backfilling areas with clean soil, capping contaminated soil areas, and closing and capping landfills. These activities supported the continued operation of industrial businesses on site, including lumber, manufacturing and rail yard maintenance facilities. Cleanup also restored natural marshes and new wetland habitats. In 2012, site stakeholders began a project to place solar panels on Shaffer Landfill, a former waste disposal area. After coordinating with EPA and the state, the town of Billerica signed a payment in lieu of taxes (PILOT) agreement in August 2013. The agreement guarantees project revenue over 25 years.

With the agreement in place, construction of the 25-acre solar array began in early 2014. Urban Green Technologies (UGT), the solar developer, placed 20,000 solar panels over the capped landfill. EPA worked with UGT to address the challenge of installing solar panels on the sloped landfill while ensuring its cap remained intact. In August 2014, EPA, the Massachusetts Department of Environmental Protection (MassDEP), UGT and the town of Billerica held a ceremony marking the project's completion. The six-megawatt facility allows Billerica to reduce dependence on fossil fuels and gain significant long-term energy cost savings. In 2014, EPA Region 1 recognized the project team, including the town of Billerica, UGT and Capital Dynamics, with its first Excellence in Site Reuse award. In December 2016, another 6-megawatt, 25-acre solar facility was constructed on site, bringing the total power at the site to 12 megawatts. Part of the facility is located on one of the closed Iron Horse Park landfills. UGT was the solar developer for the project, working with Pan Am Railways (the property owner) and the town of Billerica and coordinating with EPA and the state to make sure the installed facility would not negatively impact the landfill.

**New Bedford Harbor**

The 18,000-acre New Bedford Harbor Superfund site is located in New Bedford, Massachusetts. At least two companies produced capacitors and other electronics containing polychlorinated biphenyls (PCBs) on site from 1940 to the late 1970s. Operations discharged industrial wastes into the harbor, which contaminated the estuary from the upper Acushnet River into Buzzards Bay.

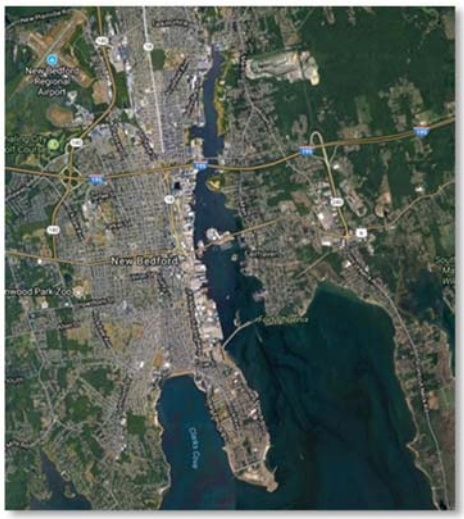



Figure A-29. New Bedford Harbor site (Massachusetts) *(Google Map Data @2017 Google)*

In 1983, EPA placed the site on the National Priorities List (NPL). Ongoing cleanup activities include the removal and disposal of contaminated sediments at approved off-site facilities, and within confined aquatic disposal cells in the harbor. Cleanup plans also include removal of contaminated sediment and wetland restoration at shoreline properties. Dredging has taken place at the site on a continuous basis since 2004.

The city of New Bedford plans to reuse EPA's shoreline sediment dewatering facility as an intermodal transportation facility. The facility, located on the city's working waterfront, will include berthing space for freighters and commercial fishing vessels, a 55,000-square-foot warehouse, and a rail spur that connects to the city's rail yard. In 2011, EPA completed demolition of the 11-acre Aerovox mill, located along the Acushnet River. The area will provide the city with space for potential future redevelopment. Residents use the harbor for recreational activities such as rowing.

Additionally, the cleanup plan allows for additional dredging efforts by local and state stakeholders. Dredging of the harbor, which enhances the remedy by removing sediment not addressed by the Superfund cleanup, has resulted in improvements to the harbor as a commercial port. It paved the way for the recent construction of the New Bedford Marine Commerce Terminal, a 28-acre marine terminal designed to support development of off-shore wind energy. Redevelopment along the river is ongoing. Projects include the repurposing of former mills for apartments and commercial space. Finally, plans include a riverwalk along the Upper Harbor and habitat restoration, which will draw residents back to the waterfront for recreational activities. EPA's cleanup will address contamination along the shoreline prior to construction of the Riverwalk. Completion of the cleanup will allow for further redevelopment and repurposing of buildings along the shoreline.

**Norwood PCBs**

The 26-acre Norwood PCBs Superfund site is located in Norwood, Massachusetts. From 1942 through the mid-1980s, several businesses made and maintained electrical components on site. During site investigations, EPA found polychlorinated biphenyls (PCBs) in soil and groundwater on site and in the sediment of a nearby brook.



Figure A-30. Norwood PCBs site (Massachusetts)

In 1986, EPA placed the site on the National Priorities List (NPL). Cleanup included removing contaminated soil and sediment and consolidating it beneath an asphalt cap. It also included demolition of on-site structures and long-term monitoring. A groundwater treatment facility operated on site until 2001. In 2008, the site owner and developers completed a 56,000-square-foot commercial retail facility on site. Developers located new buildings next to the capped area. They increased the thickness of the asphalt cap remedy to allow for its use as a parking lot. An athletic goods manufacturing company and a fitness gym are currently located in the facility. EPA took the site off the NPL in 2011.

**Nyanza Chemical Waste Dump**

The 35-acre Nyanza Chemical Waste Dump Superfund site is located in Ashland, Massachusetts. From 1917 to 1978, companies made textile dyes, dye intermediates and other products at the site. Operators buried solid waste on site. They also released wastewater to a system of lagoons and storage areas that were periodically drained; the solid material was excavated and placed on a hill. Overland flow from the hill resulted in the contamination of nearby wetlands and surface water bodies, including Eastern Wetland and the Sudbury River. These improper waste-handling practices also resulted in groundwater, soil and sediment contamination.


Figure A-31. Nyanza Chemical Waste Dump site (Massachusetts)

EPA placed the site on the National Priorities List (NPL) in 1983. In the mid-1990s, indoor air samples from residences near the site and above a contaminated groundwater plume found potentially unsafe levels of volatile chemicals in indoor air. Cleanup activities included removing sludge and contaminated soils and sediments, placing a cap over contaminated soils, and installing systems to stop vapors from coming into homes. Cleanup also included extensive wetland restoration. Sediment and fish tissue monitoring for heavy metals has also been conducted in impacted reaches of the Sudbury River, and fish consumption advisories have been posted. While cleanup decisions have been made for most of the site, EPA has not yet selected the final groundwater remedy. Several businesses, including Nyacol Nano Technologies, Inc., continue to operate at the site.

**Re-Solve, Inc.**

The 6-acre Re-Solve, Inc. Superfund site is a former waste chemical reclamation facility in North Dartmouth, Massachusetts. Between 1956 and 1980, site operators disposed of residues from operations, liquid sludge waste, impure solvents and burned tires in on-site unlined lagoons. Site operators also spread oil waste over the site to control dust.

EPA placed the site on the National Priorities List (NPL) in 1983. EPA and the site's potentially responsible parties (PRPs) constructed a groundwater pump-and-treat system at the site. The system has operated continuously since 1998. As part of the cleanup, EPA and the PRPs restored 1 acre of wetlands at the site. The PRPs also worked closely with EPA and the U.S. Fish & Wildlife Service (USFWS) to convert 4 acres of the site into a native meadow for ecological reuse. The PRPs placed bird boxes, brush piles and sand piles for turtles to enhance the meadow habitat. An annual fishing derby at Cornell Pond on site engages the community in fish monitoring activities. EPA and the PRPs have also collaboratively evaluated sustainable treatment enhancements for the groundwater treatment system since 2004. In 2015, two anaerobic bio-reactor systems were located on site. The systems are underground, contained biological treatment beds where living organisms break down contamination. This process reduces the use of chemicals and the need for waste disposal. The groundwater treatment system is powered entirely by 644 solar panels.



Figure A-32. Re-Solve, Inc. site (Massachusetts)

**Sullivan's Ledge**

The Sullivan's Ledge Superfund site is located in New Bedford, Massachusetts. A 12-acre quarry operated on site until 1921. In 1935, the city of New Bedford took over the site and turned it into a dump for hazardous materials. Waste disposal activities took place on site from the 1940s through the 1970s. The city then closed the dump and backfilled the disposal areas. In 1982, during investigations associated with a proposed parking lot development, the Massachusetts Department of Public Works, now the Massachusetts Highway Department, found soil contamination at the site.



Figure A-33. Sullivan's Ledge site (Massachusetts)

EPA conducted studies in the area and subsequently placed the site on the National Priorities List (NPL) in 1984. Cleanup activities included removing contaminated soil and sediment and capping the site. Cleanup also included removing contamination from a neighboring golf course. EPA's approach allowed for continued use of the golf course during cleanup. EPA also restored 13 acres of affected wetlands. Restoration work finished in 2002. Today, the wetlands provide habitat for many wildlife species, including the great blue heron, great egret, red-tailed hawk and spotted turtle. In 2013, EPA approved the installation of a 1.75-megawatt solar project on the capped part of the site. Project partners SunEdison, Beaumont Solar, Pro-Tech Energy Solutions and BlueWave Capital completed construction in 2014. The 10-acre system includes more than 5,000 solar panels. A partnership between BlueWave Capital and the city of New Bedford is supporting further solar projects around New Bedford. The city of New Bedford buys energy generated from the solar arrays. This enables the city to increase its use of renewable energy sources and save 30 percent on municipal electricity bills. Over the course of 20 years, New Bedford will save about $2.7 million in energy costs through the purchase of solar net metering credits. In 2014, EPA recognized the project team, including the city of New Bedford, BlueWave Capital and SunEdison, with Region 1's first Excellence in Site Reuse Award.

**Sutton Brooks Disposal Area**

The 50-acre Sutton Brook Disposal Area Superfund site is located in Tewksbury, Massachusetts. From 1957 until 1988, a landfill operated on site, accepting municipal, commercial and industrial wastes. Waste disposal practices led to soil, sediment, surface water, groundwater and air contamination. In 1983, the Massachusetts Department of Environmental Protection (MassDEP) inspected the landfill and took water samples from a nearby brook. The samples showed the presence of organic compounds.



Figure A-34. Sutton Brooks Disposal Area site (Massachusetts)

EPA placed the site on the National Priorities List (NPL) in July 2000. EPA performed three short-term cleanups on and near the site, excavating and removing highly contaminated soils and drums. The site's long-term remedy included excavation of additional soils and sediments, consolidation of this

material in on-site landfills, landfill capping, and wetlands restoration. It also included groundwater collection and treatment, monitored natural attenuation for groundwater outside the extraction system area, institutional controls and long-term monitoring. Cleanup finished in July 2016. The site now includes restored wetlands, providing habitat for local plants and animals.

**Wells G&H**

The Wells G & H Superfund site includes 330 acres of land and contaminated groundwater in Woburn, Massachusetts. Past operations at the site include dry cleaning, solvent storage, truck terminals, drum disposal and plastics manufacturing. In 1979, the Massachusetts Department of Environmental Protection (MassDEP) discovered significant levels of hazardous chemicals in two municipal supply wells. These wells were known as Wells G and H. MassDEP closed the wells. EPA placed the site on the National Priorities List (NPL) in 1983. Cleanup activities included removing debris and contaminated soils and treating contaminated soils on site. Cleanup also included groundwater removal and treatment.

In 2002, the city of Woburn's Redevelopment Authority began exploring reuse options for the site. Recommendations for three site parcels included an ice skating arena, office and retail space, and nature and walking trails. At the first parcel, the property owner cleared a junkyard of dismantled cars and turned part of the parcel into an ice skating arena. The property owner also leases parts of the property to several small businesses. These businesses include a dog care facility, a bus storage yard and an auto supplier shop. The second parcel supports commercial reuse – a hotel and three restaurants. The city of Woburn owns the third parcel. In 2017, after sediment cleanup in the Aberjona River floodplain and in conjunction with the second phase of the Industri-Plex Superfund site cleanup, the Aberjona Nature Trail was established on the parcel. The trail provides recreation and wildlife viewing opportunities. In addition, one of the source area properties at the site is undergoing redevelopment into restaurants and hotels along Washington Street while maintaining the groundwater treatment remedy. In December 2016, the Red Robin Restaurant opened for business. In the fall of 2017, Homewood Suites and Hampton Inn are scheduled to begin construction.



Figure A-35. New restaurant at the Wells G&H site (Massachusetts)

**W.R. Grace & Co., Inc. (Acton Plant)**

The 260-acre W.R. Grace & Co., Inc. (Acton Plant) Superfund site is located in the towns of Acton and Concord, Massachusetts. For over 100 years, different companies operated a chemical manufacturing facility on site. W.R. Grace, the last site owner, ceased all operations in 1991. Facility operators created wastewater and solid industrial wastes and disposed of them in several unlined lagoons and an on-site landfill. These practices contaminated soils, groundwater, surface water and sediments. In 1978, investigations found contamination in two municipal wells in Acton. EPA directed W.R. Grace to begin interim cleanup actions at the site.


Figure A-36. W.R. Grace & Co., Inc. (Acton Plant) site (Massachusetts)

EPA placed the site on the National Priorities List (NPL) in September 1983. Interim cleanup actions included groundwater extraction and treatment and removal of hazardous storage tanks. Final cleanup actions included landfill and lagoon closure, capping of site soils and sludges, sediment dredging and removal, additional groundwater extraction and treatment, and restoration of site wetlands. After the site's remedy was in place, the town of Concord took ownership of a 70-acre parcel at the site in 2016. The first phase of the town's three-phase reuse plan involved construction of a 4.5-megawatt solar array, which was completed in early 2017. This project added more green, competitively priced energy to the town's power supply portfolio.

It is expected to supply 4.5 percent of the town's power supply needs, enough to power 625 homes. Additionally, the solar array will reduce greenhouse gas emissions and offset the town's peak demand for electricity by 10 percent. Planning for remaining reuse phases – for a school bus depot and a wastewater treatment facility – is underway.

## *Federal Facility Sites*

### Fort Devens

The more than 9,000-acre Fort Devens Superfund site, once a military base with extensive contamination, is now part of a large-scale redevelopment effort in central Massachusetts. Soil and groundwater contamination resulted from military activities at the site that started in 1917. In 1989, EPA added the site to the National Priorities List (NPL).




Figure A-37. Bill Ashe Visitor Facility at the Fort Devens site (Massachusetts)

In 1994, the towns of Ayer, Harvard, Lancaster and Shirly, together with MassDevelopment, developed the Devens Reuse Plan. The plan devoted more than a third of Devens' land area to open spaces and recreational areas. Redevelopment authority MassDevelopment has brought warehouses and distribution centers, manufacturing and industrial space, and research and development facilities to the site. Several federal agencies, including the Department of Justice, the Department of Labor, and the Department of Defense, have put almost 600 acres of the site back into productive use. The U.S. Fish and Wildlife Service (USFWS) used another 836 acres of the site to expand the Oxbow National Wildlife Refuge. While cleanup and investigations are ongoing, the successful partnership between EPA, the Department of Defense, the U.S. Army, the state of Massachusetts and MassDevelopment has contributed to increased employment opportunities as well as increased revenue for the local community.

A September 2016 study noted that nearly 5,000 people were employed on site. The most recent total estimated annual employee wages date back to 2014, with a total of nearly $416 million. Average annual wages were estimated at approximately $83,500. Estimated combined sales from private sector and nonprofit establishments totaled over $1.4 billion. Private firms in Fort Devens paid an estimated $7.4 million in state corporate profits tax, with employees of private and non-profit firms paying an estimated $23 million in personal income tax. The U.S. Army still maintains significant reserve presence at Fort Devens and employs nearly 2,000 Department of Defense, military and other civilian workers at its installation.

### Fort Devens-Sudbury Training Annex

The 2,750-acre Fort Devens Sudbury Training Annex Superfund site is a former U.S. Army military installation. The site covers about four square miles and includes portions of the towns of Maynard, Stow, Hudson, and Sudbury, Massachusetts. Established in 1942, the installation served as an ammunition depot, ordnance test station, troop training and research area, and laboratory disposal area. EPA identified contamination from use of pesticides and other chemicals on parts of the site.



Figure A-38. Assabet River National Wildlife Refuge on Fort Devens Sudbury Training Annex site (Massachusetts)

EPA added the site to the National Priorities List (NPL) in 1990. The U.S. Army worked with EPA to remove contaminated soil, cover an on-site landfill with a cap, remove underground storage tanks, and monitor groundwater. In 2001, EPA removed the site from the NPL. Currently, several entities own parts of the site.

In 2000, the U.S. Army transferred 2,230 acres of the site to the U.S. Fish and Wildlife Service (USFWS). USFWS established the Assabet River National Wildlife Refuge on the land. In 2005, USFWS finished walking trails in the refuge. In 2008, USFWS finished restoring Russell Bridge. In 2010, a visitor center and other park amenities opened at the refuge. USFWS used green building techniques for the visitor center, which includes a geothermal heating system and solar panels. The refuge provides recreational opportunities including hiking, canoeing, guided tours of the military bunkers on site, hunting and fishing.

USFWS's plans for the refuge include educational demonstration areas, restoration of on-site bunkers, an urban education area and a rail-to-trail project at the abandoned railroad on the south side of the refuge. The refuge receives approximately 75,000 visitors annually. In 2002, the Army transferred four acres to the U.S. Air Force (USAF). USAF uses the area for operation of a radar and weather station. In 2003, the U.S. Army transferred about 72 acres of the site to the Federal Emergency Management Agency (FEMA). FEMA uses the land for its operations and training missions. FEMA has cleared six acres for use as a temporary antenna field.

**Hanscom Field/Hanscom Air Force Base**

The 1,120-acre Hanscom Field/Hanscom Air Force Base (AFB) Superfund site is located in an industrial area of eastern Massachusetts. The site is in the towns of Bedford, Concord, Lexington and Lincoln. In 1942, the Commonwealth of Massachusetts leased the Bedford airport to the War Department for use by the Army Air Forces. In February 1943, the airport was renamed Laurence G. Hanscom Field. Military flight operations at the site ended in 1973. In August 1974, the U.S. Air Force terminated its lease of the airfield portion of Hanscom Field, which reverted to state control, but retained the right to use the field. Military use of the site resulted in contamination of groundwater and subsurface soil with chlorinated solvents, jet fuel and other petroleum compounds. Site investigations identified 22 possible sources, including former fire training, disposal, underground storage tank and other spill sites.




Figure A-39. Hanscom Field/Hanscom Air Force Base site (Massachusetts) *(Google Map Data @2017 Google)*

Under state oversight before the site's National Priorities List (NPL) listing in 1994, the potentially responsible party completed interim remedial actions, including excavation of contaminated soil and underground storage tanks, and installation of a groundwater extraction and treatment system. EPA's cleanup plan, as documented in a 2007 Record of Decision, includes continued operation of the groundwater treatment system, land use controls, and monitoring groundwater and surface water, with some investigations ongoing. Today, the Massachusetts Port Authority operates L.G. Hanscom Field as a civilian airport. Hanscom AFB, an active base owned and operated by the U.S. Air Force, is located on the other 396 acres of the site. Hanscom AFB is home to the Electronic Systems Center of the Air Force Material Command, which provides command and control and information systems to the U.S. Department of Defense and U.S. allies. In 2016, there were approximately 64 businesses operating on site. Together, these businesses employ over 4,500 people, contribute over $400 million in annual employment income, and generate over $664 million in annual sales.

**Materials Technology Laboratory (USARMY)**

The 48-acre Materials Technology Laboratory (USARMY) Superfund site, better known as the "Arsenal," is located in Watertown, Massachusetts. In 1816, the U.S. Army began operations at the site; 10,000 people worked on the site by the end of World War II. The Army used the site for a variety of military- and war-related activities, including weapons and ammunition manufacturing and storage. In the 1960s, the Army used the site for nuclear reactor and molecular and atomic structure research activities. Wastes generated by the facility contaminated soil and groundwater at several areas across the site.




Figure A-40. Mixed-use complex at Materials Technology Laboratory (USARMY) site (Massachusetts)

EPA added the site to the National Priorities List (NPL) in 1994. Cleanup removed contamination and demolished an on-site nuclear reactor. From 1996 to 2005, the Watertown Arsenal Development Corporation (WADC) helped redevelop 30 acres of the site. Harvard University bought the area and built a mixed-use complex called Arsenal on the Charles, which incorporates the style and architecture of the original brick buildings in the area. The complex includes retail stores, restaurants, a child care facility, a fitness center, corporate offices and other businesses. The Arsenal Center for the Arts, also in the complex, is an important cultural asset to the community; it has a theater, gallery space, artists' studios, and other resources and services. The Commander's Mansion, a historic

landmark, occupies a 7.2-acre area of the site; it provides space for meetings and formal functions. The popular Squibnocket Park is located on an 11-acre parcel along the Charles River; it provides biking and walking trails, as well as access to the Watertown Yacht Club, a privately-owned marina since 1940. The Army restored wetlands along the Charles River. EPA deleted the site from the NPL in 2006. Much of the property is currently owned by athenahealth, which employs nearly 2,800 workers and office tenants. For the last several years, athenahealth has paid between $4 and $5 million in property tax annually.

**Natick Laboratory Army Research, Development, and Engineering Center**

The 78-acre former Natick Laboratory Army Research, Development, and Engineering Center Superfund site in Natick, Massachusetts is now known as the U.S. Army Soldier Systems Center (SSC). The site occupies a peninsula on the eastern shore of Lake Cochituate State Park and Recreation Area. The U.S. Army built the Natick Laboratory in 1954. The Army conducted research and development activities on site. These activities contaminated soil, groundwater and surface water with hazardous chemicals. In 1989, personnel at the facility noticed a sheen on water running off the site during rainstorms. Construction workers also noticed a benzene-like odor in soil on site. The U.S. Army conducted soil gas surveys and detected several volatile organic compounds. Soil, groundwater and surface waste sampling also showed contamination.



Figure A-41. Natick Laboratory Army Research, Development, and Engineering Center site (Massachusetts)

EPA added the site to the National Priorities List (NPL) in 1994. Cleanup activities included groundwater containment, treatment and monitoring; soil excavation and removal; and sediment removal. Treated groundwater is reused as non-drinkable water for irrigation and toilets. The SSC still operates a U.S. Army research and testing facility on site. The facility researches, develops and manages food, clothing, shelters, airdrop systems and soldier support items. The facility currently employs approximately 1,000 people.

**Otis Air National Guard Base/Camp Edwards)**

The 22,000-acre Otis Air National Guard Base/Camp Edwards Superfund site is located on western Cape Cod in Barnstable County, Massachusetts. Also known as the Joint Base Cape Cod (JBCC) (formerly known as Massachusetts Military Reservation (MMR) until July 13, 2013), the site lies about 60 miles south of Boston and immediately southeast of the Cape Cod Canal. Since its establishment in 1935, the MMR's primary mission has been to provide training and housing to U.S. Air Force and U.S. Army units. Historical chemical and fuel spills; fire training activities; and sewage treatment plant, landfill and drainage structure operations contaminated site soil and groundwater. Investigations in 1983 and 1984 found volatile organic compounds (VOCs) in on-site and nearby monitoring wells, as well as in several hundred private wells. The main contaminants include VOCs and heavy metals.



Figure A-42. Otis Air National Guard Base/Camp Edwards site (Massachusetts)

EPA listed the site on the National Priorities List (NPL) in November 1989. EPA documented the site cleanup plan in over 15 Record of Decision (ROD) documents. Cleanup activities include installation of water supply lines to affected residents, installation of municipal water supply well treatment systems, treatment of 100,000 tons of soil, and construction and operation of many on-site and off-site groundwater treatment plants. Twelve groundwater treatment systems currently operate on 11 groundwater plumes. EPA has completed cleanups at 25 source areas. EPA issued a preliminary close-out report in December 2009. This report marked the completion of all remedy construction activities at the site.

The Barnstable County Correctional Facility, a jail with capacity for about 580 inmates, began operating on site in 2004. The Air Force installed three 1.5-megawatt wind turbines – one in 2009 and two in 2011 – to offset electrical costs for

groundwater cleanup systems at the MMR. The Air Force estimates that the wind energy saves about $1.5 million a year in electrical costs. EPA's cleanup plans allowed continued site operations during cleanup. Today, five major organizations use the site: 1) The Massachusetts Air National Guard (ANG) operates Camp Edwards, 2) The ANG/Massachusetts ANG operates Otis ANG Base, 3) The U.S. Air Force operates Cape Cod Air Force Station, 4) The U.S. Coast Guard operates Air Station Cape Cod, and 5) The U.S. Department of Veterans Affairs operates the Massachusetts National Cemetery. In May 2017, the base employed nearly 3,800 people and has a total economic impact of almost $331 million.

**South Weymouth Naval Air Station**

The South Weymouth Naval Air Station consists of 1,442 acres in the towns of Weymouth, Abington and Rockland, Massachusetts. Military operations at the site included aviation training, aircraft maintenance and refueling, personnel training, housing and administrative support services. Waste disposal activities also took place at the site. Sampling confirmed on-site contamination in 1991.



Figure A-43. Union Point at the South Weymouth Naval Air Station site (Massachusetts) *(Photo credit: LSTAR Ventures)*

EPA added the site to the National Priorities List (NPL) in 1994. The base closed under the Base Realignment and Closure (BRAC) Act and cleanup began in 1997. Cleanup activities included soil covers, removals, groundwater treatment and land use restrictions. The local reuse authority, the U.S. Coast Guard and the Federal Aviation Administration have received over 600 acres of the site. Redevelopment negotiations between the Navy and private developers took place from 1997 until 2011, when a private developer purchased the remaining site acreage. Union Point includes almost 4,000 homes, over 6 million square feet of commercial space, more than 1,000 acres of open space and over 50 miles of trails.

## *Other Cleanup Sites*

**31 Water Street**

The 31 Water Street site is located next to the Back and Powwow rivers in Amesbury, Massachusetts. Several industrial operations contaminated site soils and surrounding surface waters. The city of Amesbury discovered the contamination during initial revitalization efforts for the historic Amesbury Wharf building area, where the site is located. Cleanup activities included the removal of contaminated soils and riverbank stabilization and finished in 2015.



Figure A-44. Park at 31 Water Street site (Massachusetts)

The site, part of the community's Lower Millyard Project, is now home to Heritage Park and the Amesbury Carriage Museum. Funding from the Commonwealth of Massachusetts and EPA's Superfund Removal Program facilitated the site's cleanup and redevelopment. The park provides residents and visitors with a recreation resource next to the Pow Wow River. The museum showcases historic horse-drawn carriages, sleighs and automobiles. At a ceremony marking the completion of the Lower Millyard Project, Amesbury's mayor issued a proclamation thanking EPA for its assistance.

**Flynntan Tannery Site**

The Flynntan Tannery site is located in Salem, Massachusetts. A leather tannery operated on site. EPA worked to clean up the site after the tannery's closure. A real estate developer bought the site property and has begun redeveloping it with housing units and commercial space.

**Former Bendix Property**

The 17.5-acre Former Bendix Property site is located in Greenfield, Massachusetts. A metalworking facility that made drill bits, taps and dies was located on site. A 94,000-square-foot, single-story building sat vacant for about 10 years and deteriorated. Openings in the roof allowed in rain and snow. The rain and snow damaged the heat and water piping, which was wrapped with asbestos-containing insulation wrap. Chromium-containing powder was present in and around the building. EPA removed contaminated materials and devices as well as chromium-containing powder, capacitors and contaminated water, and transported them to approved facilities. A metal tank and bin production company from Holyoke, Massachusetts, is interested in buying the site property to enlarge its operations.



Figure A-45. Former Bendix Property site (Massachusetts)

**Former Lawrence Metals**

The Former Lawrence Metals site is located in Chelsea, Massachusetts. From the late nineteenth century until 1974, when a fire destroyed the building, owner operators used the site property for textile production, barrel cleaning and painting. From 1979 to 1986, operators used the property for warehouse space. In 1986, the Lawrence Metals Forming Company began operating on site. Its operations resulted in the contamination of soil and site materials.

In 1999, the city of Chelsea acquired the site property under an Urban Renewal Plan. The city demolished the site building in 2000. EPA, the city and the state coordinated cleanup, including the excavation of contaminated soil. The project was particularly challenging because of its proximity to a school and a city swimming pool. An upscale, extended-stay hotel is now located on site.



Figure A-46. Hotel on the Former Lawrence Metals site (Massachusetts)

**Universal Steel & Trading Corporation**

The 1.2-acre Former Universal Steel site is located in Salem, Massachusetts. From 1936 to 1998, metal recycling and reclamation activities took place on the site property. Activities included processing scrap metals and demolition debris, dismantling and processing transformers, and stockpiling automotive batteries. These activities contaminated site soil. EPA, the city of Salem, MassDevelopment and the Massachusetts Department of Environmental Protection (MassDEP) worked together to clean up the site. Cleanup activities included excavation and off-site disposal of contaminated soil and debris, collection and disposal of lubrication oil, asbestos removal, and building demolition. FW Webb, a plumbing supply company, is buying the site property. FW Webb plans to use the property for parking, loading and storage as part of an 8,000-square-foot addition to the existing facility next door.



Figure A-47. Universal Steel & Trading Corporation site (Massachusetts)

**GE-Housatonic River**

The GE-Pittsfield/Housatonic River (GE-Housatonic River) site includes a 254-acre former manufacturing facility, filled river oxbows, neighboring commercial properties, Allendale School, Silver Lake, the Housatonic River, floodplains and other areas. The site contains contamination released from the General Electric Company (GE) facility in Pittsfield, Massachusetts. A cleanup decision for portions of the Housatonic River is currently pending. A consent decree entered in federal court in 2000 outlined the cleanup of all other areas of the site. 19 of 20 cleanup actions outside the river are now complete. EPA expects completion of remaining cleanup actions outside the river in the next two years. Cleanup of two miles of the Housatonic River is also already complete.

As part of ongoing cleanup activities, the community prioritized the reuse of the former GE facility, located in the heart of downtown Pittsfield. Funded by a Superfund Redevelopment pilot grant from EPA, the Pittsfield Economic Development Authority (PEDA) developed a reuse plan. The plan outlined opportunities for sports fields and an office park. In 2004, GE built a 3-acre recreational facility on site for the community. The facility includes a baseball diamond, soccer field, jogging track, equipment storage, fencing and lighting. Between 2005 and 2012, PEDA received ownership of 50 acres at the site for the development of the William Stanley Business Park. The facility provides commercial and industrial space for area businesses. The park's first tenant, a financial services company, built a 170,000-square-foot building that opened in 2012. Western Massachusetts Electric Company installed an 8-acre solar power facility in 2010, using 2 acres of the site and 6 acres of an adjacent property. In 2014, PEDA received a $9 million state grant to design and build the Berkshire Innovation Center. The facility will support shared research, early-stage production and commercialization, and work force training for life science companies and related businesses. In 2017, a developer in coordination with PEDA submitted plans to construct a 190,000-square-foot Super Walmart on a 16-acre portion of the site. Permitting and construction is expected to take two to three years and cost about $30 million. Two large employers continue to operate on the GE-owned portion of the 254-acre facility. Continued uses on the non-GE owned portion of the site (excluding the Rest of River) include an elementary school, about 86 residential properties, about 35 commercial properties and a city park.



Figure A-48. GE-Housatonic River site (Massachusetts)

**Intervale Site**

The Intervale site is located in Quincy, Massachusetts. A metals recycling business operated on site. Sampling in 2012 detected polychlorinated biphenyls, lead, arsenic and chromium in site soils. EPA removed about 4,400 tons of contaminated soil in 2014 and 2015. The city of Quincy will offer the site property for sale after completion of EPA's cleanup activities.



Figure A-49. Intervale Site (Massachusetts)

**King Phillip Mills**

The King Phillip Mills site is located in Fall River, Massachusetts. A cotton mill was built on site between 1871 and 1892. EPA identified drums, containers and cylinders at the site. In November 2014, EPA completed a time-critical removal action to remove contaminated drums and containers as well as asbestos-containing material. EPA completed a second time-critical removal action in March 2017 to remove polychlorinated biphenyl oils from contaminated materials. The city is evaluating potential redevelopment options for the property.

**Parsons Paper**

The 4.6-acre Parsons Paper site is located in Holyoke, Massachusetts. From 1896 to 2004, operators made writing and stationary paper as well as artist paper and archival paper for the art and framing industries on site. In 2008, a fire destroyed about 50 percent of the mill. The fire also damaged remaining parts of the interconnected building complex. In 2009, EPA sampling identified asbestos in the burned areas. Sources of asbestos includes asphalt shingles, window glazing and caulking, tank and pipe insulation, transite siding, cements and mastics, and floor tiles. In 2009 and 2010, EPA removed hazardous materials and asbestos that posed a threat to public health. In 2016, building demolition began for the expansion of Holyoke manufacturer Aegis Energy Services on site.




Figure A-50. Parsons Paper site (Massachusetts)

**Peabody Street Asbestos**

The Peabody Street Asbestos site is located in Salem, Massachusetts. The city of Salem identified asbestos during construction of a park in the downtown area. EPA excavated contaminated soil because of the urban setting and because the city and state did not have funds for the excavation. EPA recovered most expenses from the polluter. The city resumed construction of the park after EPA completed the excavation. Completed in 2010, the Peabody Street Park/Harbor Walk serves as a gateway to the city of Salem's harbor. The park includes a playground, a canopy area, and seating for outdoor entertainment as well as game tables, benches and landscaping.



Figure A-51. Peabody Street Park/ Harbor Walk at the Peabody Street Asbestos site (Massachusetts)

# New Hampshire Reuse Summary Profiles

## *National Priorities List Sites*[10]

### Auburn Road Landfill

The 200-acre Auburn Road Landfill Superfund site is located in Londonderry, New Hampshire. The site includes three separate disposal areas that cover about 12 acres. A disposal area for chemical wastes, tires, demolition debris and solid waste operated on site from the 1960s to 1980. The state of New Hampshire found contamination in soil, groundwater and surface water and ordered the landfill's closure in 1980.



Figure A-52. Auburn Road Landfill site (New Hampshire)

EPA placed the site on the National Priorities List (NPL) in 1983. Cleanup activities included capping and fencing of contaminated areas as well as extension of the public water supply to nearby residents. Groundwater sampling is ongoing. Parts of the site are in recreational reuse as a model airplane flying field. The flying field opened in 2008. Site reuse was the result of collaboration among EPA, the New Hampshire Flying Tigers Academy of Model Aeronautics and the town of Londonderry.

### Fletcher's Paint Works & Storage

The Fletcher's Paint Works & Storage Superfund site is located in Milford, New Hampshire. A paint manufacturing plant and retail outlet operated on site from 1949 to 1991. In 1982, the New Hampshire Department of Environmental Services (NHDES) inspected the facility. NHDES found leaking and open drums on site. NHDES also found site-related contamination in the Keyes Municipal Water Supply Well next to the site.



Figure A-53. Elm Street recreation area at Fletcher's Paint Works & Storage site (New Hampshire)

EPA placed the 2-acre area on the National Priorities List (NPL) in 1989. Past cleanup efforts include building demolition, drum removal, fencing, temporary cover installation, removal of contaminated soil from residential properties, and placement of a temporary liner and gravel cover over highly contaminated areas. In 1996, at the request of the town of Milford, the potentially responsible party (PRP) removed soil with low levels of contamination at the Elm Street Area of the site to allow for construction of a Korean War Memorial. In 2017, construction activities were completed, which included the Mill Street Area soil excavation, backfilling of the area with clean soil and a grass cover, and relocation of Mill Street part of the area for better local traffic management. In addition, construction activities at the Elm Street Area include soil excavation, an engineered soils and grass cover permitting recreational use, and an asphalt cover over select areas providing the town with additional parking for nearby Keyes Recreational Field. Groundwater monitoring is ongoing.

### Kearsarge Metallurgical Corp.

The 9-acre Kearsarge Metallurgical Corporation (KMC) Superfund site is located in Conway, New Hampshire, on the north shore of Pequawket Pond. From 1964 until 1982, KMC made stainless steel castings on site. The manufacturing process created waste casting sands, wax and solvents. KMC dumped these wastes in a wooded wetland east of the facility. When operations



Figure A-54. Kearsarge Metallurgical Corp. site (New Hampshire)

[10] See the "Federal Facility Sites" section on page A-27 for reuse summaries of federal facility sites on the National Priorities List (NPL).

ceased, the New Hampshire Department of Environmental Services (NHDES) and EPA found a waste pile, soils and groundwater contaminated with solvents.

EPA placed the site on the National Priorities List (NPL) in September 1984. Cleanup began in 1992, and included removal of 13,620 tons of contaminated soils and construction of a groundwater treatment plant. During 12 years of operation, the plant treated over 250 million gallons of water and removed more than 225 pounds of contaminants. In 2012, the town sold the site property at auction to help invigorate the surrounding industrial park. EPA and NHDES addressed remaining groundwater contamination with a soil treatment remedy in 2015. A towing company, a heating business, and a farm equipment and diesel truck repair facility are currently located in the former groundwater treatment plant and part of the original KMC building. Ecological reuse includes forested wetlands that provide ecological habitat along the northern bank of Pequawket Pond.

**Ottati & Goss/Kingston Steel Drum**

The 35-acre Ottati & Goss/Kingston Steel Drum Superfund site is located in Kingston, New Hampshire. The site includes a 6-acre parcel, known as the Great Lakes Corporation area and a 1-acre parcel, known as the Ottati & Goss area. From the late 1950s through 1980, various owners reconditioned steel drums on the Great Lakes Corporation area. Runoff and seepage from this area into nearby surface water killed fish and aquatic vegetation. From 1978 through 1979, site operators processed waste at the Ottati & Goss area. Activities contaminated soil, groundwater and surface water. After operations ended in 1979, the New Hampshire Bureau of Solid Waste Management prohibited site operators from restarting operations. The Bureau ordered the removal of thousands of deteriorating and leaking drums from the site.



Figure A-55. Ottati & Goss/Kingston Steel Drum site (New Hampshire)

EPA placed the site on the National Priorities List (NPL) in 1983. Cleanup activities included removal of leaking drums and thousands of tons of soil and debris, excavation and on-site treatment of soil and sediment using thermal desorption, groundwater and soil treatment using in-place chemical oxidation, and wetland restoration for ecological reuse. Wetland restoration included the placement of over 20,000 cubic yards of manufactured wetland material and the planting of more than 1,000 trees and shrubs.

**Somersworth Sanitary Landfill**

The 26-acre Somersworth Sanitary Landfill Superfund site is located in Somersworth, New Hampshire. The city of Somersworth operated a waste disposal area at the site from the mid-1930s until 1981. The city burned residential, commercial and industrial wastes at the site. In 1958, the city stopped burning waste and converted the area into a landfill. Improper disposal practices contaminated site soil, sediment and groundwater.




Figure A-56. Somersworth Sanitary Landfill site (New Hampshire) *(Google Map Data @2017 Google)*

EPA added the site to the National Priorities List (NPL) in 1983. Cleanup included groundwater containment and treatment, a landfill cover, and gas venting, as well as land and groundwater use restrictions. Prior to the site's listing on the NPL, the city covered a 10-acre portion of the site with clean fill for use as a recreation area. This area now includes a basketball court. Part of the site not developed as a part of the landfill remains wetlands. In 2013, EPA presented the city with an initial assessment of renewable energy opportunities for the site. The city chose to move forward with plans for a solar facility. The city selected the N.H. Solar Garden company as its project partner and is working with them to finalize plans for the facility.

**South Municipal Water Supply Well**

The 250-acre South Municipal Water Supply Well Superfund site is located in the Contoocook River Valley in Peterborough, New Hampshire. Installed in 1952, the South Municipal Water Supply Well provided water to Peterborough for nearly 30 years. In 1982, the state of New Hampshire routinely tested the water supply. Results showed contaminants in the South Well. Use of the well ended. Investigations found that the nearby New Hampshire Ball Bearings facility was the source of the contamination. The facility has manufactured precision ball bearings since 1956. Activities at the facility contaminated soil, groundwater, wetland sediments and surface water.



Figure A-57. South Municipal Water Supply Well site (New Hampshire)

EPA placed the site on the National Priorities List (NPL) in 1984. Initial cleanup activities included groundwater and soil treatment, off-site disposal of contaminated sediments, and wetland restoration. Later, EPA determined that restoration of some of the contaminated groundwater at the site was not possible. EPA updated the remedy to contain the groundwater instead of treating it. In 2008, EPA found that the site remedy was not functioning as intended. EPA updated the cleanup plan in 2010 to change source control and migration management activities. New Hampshire Ball Bearings completed a below-ground wall to clean up contaminated groundwater in 2014. In-place thermal treatment of an on-site source area finished in 2016. Current site uses include the 24-acre active New Hampshire Ball Bearings manufacturing plant, commercial and residential properties, part of U.S. Route 202, and wetlands.

**Tinkham Garage**

The 375-acre Tinkham Garage Superfund site is located in Londonderry, New Hampshire. On one end of the site, solvents and other hazardous substances were discharged behind a garage during the late 1970s. On another part of the site, petroleum, solvents and wash waters were discharged into the leach fields of the Woodland Village Condominium complex. In 1978, residents complained of foam and odors in a small unnamed stream that runs through the complex. Investigators found soil and groundwater contamination.




Figure A-58. Tinkham Garage site (New Hampshire)

In 1983, EPA placed the site on the National Priorities List (NPL). Cleanup activities included groundwater and soil treatment, extension of the public water line to the condominium complex and nearby houses as well as sewer lines, and groundwater monitoring. Groundwater monitoring, construction of additional water line extensions to residents and additional source area and bedrock investigations are ongoing. During cleanup, EPA provided information to interested parties about reuse considerations for the site.

Today, a shopping complex including a Home Depot, Staples and Dunkin' Donuts occupies the northeastern area of the site. The Woodland Village Condominium complex and several single-family homes remain on the northern part of the site. The Nevins Retirement Cooperative Association completed construction of over 125 residences on the central part of the site. These residences are part of a senior housing development. Site redevelopment has increased property values in Londonderry. Increased economic activity at the site has also encouraged local infrastructure improvements.

**Town Garage/Radio Beacon**

The Town Garage/Radio Beacon Superfund site is located in Londonderry, New Hampshire. The U.S. Department of Defense owned part of the site from the early 1940s until 1968 and operated a radio beacon there during World War II. Afterwards, the site contained a series of residential wells and one commercial well. A 1984 state inspection found groundwater contamination in many of the wells. In the late 1980s, owners of six residences affected by groundwater contamination in wells chose to connect to the local public water supply. As a precaution, several other residences have since connected to the public water supply.




Figure A-59. Residential development east of the Town Garage site (New Hampshire) *(Google Map Data @2017 Google)*

EPA placed the site on the National Priorities List (NPL) in 1989. Cleanup activities included annual monitoring of natural processes to clean up groundwater and placing restrictions to prevent groundwater use for household purposes. The success of EPA's cleanup plan allowed for site reuse. Today, the site includes two residential developments and a wetland area. The Holton Circle development includes about 25 homes and the Saddlebrook development includes 20 new homes. In 2014, EPA took the site off the NPL.

**Troy Mills Landfill**

The Troy Mills Landfill Superfund site is part of a larger 270-acre parcel in Troy, New Hampshire. From 1967 until 1978, Troy Mills used the property to dispose of solid waste and hazardous materials generated by its manufacturing plant. In 1978, the state of New Hampshire ordered the company to stop these disposal practices. During the 1980s and 1990s, environmental investigations confirmed on-site soil, groundwater, surface water and sediment contamination. Troy Mills filed for bankruptcy in 2001.



Figure A-60. Troy Mills Landfill site (New Hampshire)

EPA placed the site on the National Priorities List (NPL) in 2003. Cleanup actions included installing a system to collect hazardous materials from the groundwater. Cleanup also included removal of drums containing flammable liquid waste, waste sludge and contaminated soil. After removing contaminated soil, EPA backfilled excavated areas and capped them. In 2005, EPA supported community efforts to identify reuse options for the site. The community expressed interest in a passive recreation area. Today, an on-site trail network forms part of the 42-mile Cheshire Branch Rail Trail system. Limited access to the site for recreational use will continue until EPA finishes cleanup activities. Future recreation opportunities at the site could include hiking, horseback riding, snowmobiling, mountain biking and cross-country skiing.

## *Federal Facility Sites*

**Pease Air Force Base**

The 4,000-acre former Pease Air Force Base is located in Rockingham County in the city of Portsmouth and the town of Newington, New Hampshire. From the 1950s until 1991, the U.S. Air Force (Air Force) used the facility to maintain military aircraft. Aircraft maintenance operations contaminated soil and groundwater with solvents and fuel.




Figure A-61. Pease Air Force Base site (New Hampshire)

EPA added the site to the National Priorities List (NPL) in 1990. The Air Force continues investigations and is constructing treatment systems for contaminated groundwater. In 1992, the Air Force transferred 1,702 acres of the site to the local government for use as a public airport. The Air Force kept 229 acres for the New Hampshire Air National Guard. The New Hampshire Department of Transportation leased 20 acres for a highway expansion project.

The Air Force also transferred 1,054 acres to the U.S. Fish and Wildlife Service (USFWS) for creation of the Great Bay National Wildlife Refuge. In 1997, USFWS received another 1,300 acres from the Air Force. In 2000 the Pease Development Association completed the Pease International Tradeport. In 2005, the Air Force transferred the remaining 268 acres of the site to the Pease Development Authority. Redevelopment of this area is ongoing. The Pease International Tradeport currently includes over 250 businesses, employing over 9,000 people. A 2015 study estimates the following: nearly 4.5 million square feet of space completed, under construction, and approved; wages paid by Tradeport employers total $584 million annually; regional wages, including jobs off the Tradeport supported by Tradeport activity, total over $725 million annually; business and meals/rental taxes to the state total $16 million annually; and total "payment in lieu of taxes" revenues and municipal service fees total over $6 million annually.

## *Other Cleanup Sites*

**Synergy Site**

The Synergy Site is located in Claremont, New Hampshire. From the turn of the century until the mid-1940s, a manufactured gas plant operated on site. Operations contaminated soil with coal tar, a common contaminant of that process. Between 2010 and 2012, investigations identified waste perched on bedrock that was leaching into the Sugar River. Cleanup activities included removing structures and soil, stabilization, and capping. Because of the historical importance of the gas plant to the town's textile history and EPA's obligations under the Historical Preservation Act, EPA coordinated with the State Historic Preservation Office during cleanup activities. A brick-and-concrete structure and plaques will memorialize the site's history. The site is located near the visitor center and is part of the community's historic downtown area. Looking forward, the town plans to include the site as part of a larger recreation area.



Figure A-62. Synergy Site (New Hampshire)

# Rhode Island Reuse Summary Profiles

## *National Priorities List Sites*[11]

### Central Landfill

The Central Landfill Superfund site is a 154-acre former landfill in Johnston, Rhode Island. During the 1970s, operators disposed of industrial liquid waste in the landfill's hazardous material disposal area. In 1982, the state ordered the site owner to close this area. EPA placed the site on the National Priorities List (NPL) in 1986.



Figure A-63. Central Landfill site (Rhode Island) *(Google Map Data @2017 Google)*

Cleanup activities included construction of a multi-layer cap, containment and treatment of groundwater, deed restrictions on groundwater use and land use, and evaluation of the site's landfill gas collection system. Today, the site remains in continued use. Central Landfill, which is owned and operated by the Rhode Island Resource Recovery Corporation, operates on site. It receives over 90 percent of Rhode Island's municipal solid waste. Broadrock Renewables, LLC also owns and operates a facility on site that turns gas collected from the landfill into electricity. The company expanded the energy-generating facility in stages. The facility currently includes 15 engine generator sets that produce up to 20 megawatts of electricity. A construction company and a heating and air conditioning company are also active on site.

### Centredale Manor Restoration Project

The Centredale Manor Restoration Project Superfund site includes a 9-acre property in North Providence, Rhode Island, and downstream areas. A chemical company and a drum reconditioning facility operated on site at different times beginning in the early 1940s. Operations ended in 1972 when a fire destroyed most of the facility. Disposal practices included burying waste or releasing chemicals directly onto the ground or into the river. These practices resulted in widespread contamination on site and downstream. Residential development followed – Brook Village Apartments in 1977 and Centredale Manor Apartments in 1983. EPA investigations found contamination in soil, sediment, groundwater, surface water and animals on site.



Figure A-64. Centredale Manor Restoration Project site (Rhode Island)

EPA placed the site on the National Priorities List (NPL) in 2000. EPA's early actions included capping and fencing the site, as well as removing some contaminated soil from low-lying residential properties and restoring the Allendale Dam. Today, the Brook Village and Centredale Manor apartment complexes remain on site. EPA's cleanup approach has been compatible with the site's continued residential use.

### Peterson/Puritan, Inc.

The Peterson/Puritan, Inc. Superfund site spans over 500 acres in Providence County, Rhode Island. In 1959, a plant at the north end of the site began packaging aerosol consumer products. A rail car accident and tank spill on the property in 1974 released 6,000 gallons of solvent. In 1979, the Rhode Island Department of Health found contamination in groundwater affecting nearby public well fields. Immediate measures took place to provide an alternative water supply to the local communities. EPA determined that the Peterson/Puritan, Inc. facility was the source of the groundwater contamination.

[11] See the "Federal Facility Sites" section on page A-31 for reuse summaries of federal facility sites on the National Priorities List (NPL).

EPA placed the site on the National Priorities List (NPL) in 1983. In 1990, EPA divided the site into two cleanup areas, known as operable unit 1 (OU1) and OU2. EPA expects to begin the cleanup design for OU2 in 2017. For OU1, systems are in place to clean up contaminated groundwater and soil. Cooperation between EPA, Rhode Island Department of Environmental Management (RI DEM) and the community enabled on-site businesses to remain in operation during the cleanup. Megawatt Energy Solutions installed over 2,000 solar panels on the roof of a warehouse building on site in 2014. The solar array produces about 650,000 kilowatts of electricity per year. The warehouse owner also installed a similar system on a second building at the site. The state of Rhode Island and the municipality also completed redevelopment projects on site. These projects include a condominium complex and a town dog pound. Other redevelopment includes a riverside park and a bike path along the Blackstone River and Canal. The Blackstone River remains an important natural, recreational and cultural resource for the region. In 2014, the area became part of the national park system as the Blackstone River Valley National Historic Park.



Figure A-65. Peterson/Puritan, Inc. site (Rhode Island)

**Rose Hill Regional Landfill**

The Rose Hill Regional Landfill Superfund site is a former municipal landfill in South Kingstown, Rhode Island. From 1967 to 1983, South Kingstown leased the land for use as a domestic and industrial waste disposal facility. Improper disposal activities contaminated site groundwater, soils and three nearby private wells. Runoff contaminated nearby surface water bodies. EPA discovered the contamination in 1981. In 1983, the facility stopped operations and the operator graded and seeded the disposal areas.


Figure A-66. Solar farm plan for the Rose Hill Regional Landfill site (Rhode Island) *(Photo credit: Kearsarge Energy)*

In 1989, EPA placed the site on the National Priorities List (NPL). Early investigations found landfill gases moving off site toward nearby homes. Cleanup activities included extending the municipal water supply to residences with contaminated wells, installing gas alarms for nearby residences and relocating one residence. Landfill cleanup activities include consolidating landfill areas, capping the landfill, installing a landfill gas destruction system, monitoring, and restricting groundwater use. EPA will determine the need for additional cleanup activities based on monitoring. A South Kingston transfer station for municipal wastes is located on part of the site. Surrounding land uses support a hunting preserve, a bird dog kennel and field training facilities, and a pet cemetery. The South Kingstown Town Council also authorized development of a solar photovoltaic energy farm on the property. The 4.5-megawatt solar farm is scheduled for construction in late 2017 or 2018 on the landfill caps.

**Western Sand & Gravel**

The Western Sand and Gravel Superfund site includes about 25 acres in a rural area on the boundary of Burrillville and North Smithfield, Rhode Island. From 1953 until 1975, a sand and gravel quarry operated on site. From 1975 to 1979, a waste disposal area operated on site. Operators disposed of wastes in unlined lagoons and pits. These waste handling practices resulted in contamination of soil and groundwater.


Figure A-67. Western Sand & Gravel site (Rhode Island)

EPA placed the site on the National Priorities List (NPL) in 1983. Cleanup included a groundwater recirculation system, an alternate water supply, restrictions on groundwater and land use, and monitoring of natural processes to clean up groundwater. Cleanup also included waste removal, capping of a 2-acre area and fencing of the 6-acre contaminated soil area. In 2001, Supreme Mid-Atlantic purchased the site property. In 2004, the company completed construction of a 20,000-square-foot truck-body assembly building and open

space for truck parking. Supreme Mid-Atlantic conducted assembly, sales and service activities at the site until 2016, when it closed its Rhode Island operation. The land and the building are currently for sale.

**West Kingston Town Dump/University of Rhode Island**

Two former dumping areas in South Kingston, Rhode Island, make up the 18-acre West Kingston Town Dump/University of Rhode Island (URI) Disposal Area Superfund site. A gravel mine began operating on part of the site, the West Kingston Town Dump area, in the 1930s. From the late 1940s until 1975, a gravel mine also operated on site, at the URI Disposal Area. Starting in 1951, area towns and URI began disposing of unregulated waste on site. The dump closed in 1978. However, disposal continued until at least 1987. Starting in 1988, the state connected affected residential wells nearby to city water. A 1989 inspection found leaking drums next to the site. Drum contents contaminated subsurface soil and groundwater.

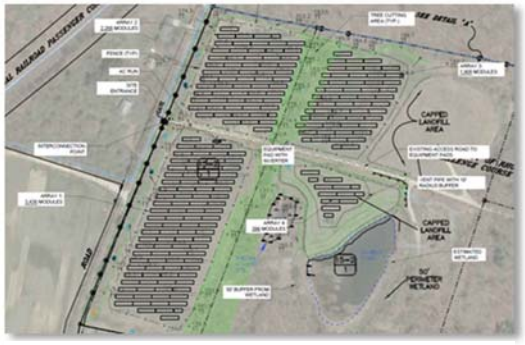


Figure A-68. Plan for the West Kingston Town Dump/URI site solar farms (Rhode Island) *(Photo credit: Kearsarge Energy)*

EPA placed the site on the National Priorities List (NPL) in October 1992. For cleanup, the potentially responsible parties (PRPs) combined waste from both areas and capped it on site. In 2009 and 2011, EPA injected chemicals to help break down contaminants in the groundwater. Operation and maintenance activities and groundwater monitoring are ongoing. Residents and URI students currently use walking trails on site. Solar facilities of 1.2 megawatts and 2.7 megawatts are scheduled for the West Kingston Town Dump area and the URI Disposal Area, respectively. These facilities will have a combined capacity of 3.9 megawatts. Construction is scheduled for late 2017 or 2018.

## *Federal Facility Sites*

**Davisville Naval Construction Battalion Center**

The Davisville Naval Construction Battalion Center (Davisville NCBC) site is located 18 miles south of Providence, Rhode Island. The site includes 1,500 acres along the Narragansett Bay. From 1951 to 1994, Davisville NCBC supported mobilization of naval construction forces. Operations and waste disposal practices at the site resulted in widespread soil and groundwater contamination. Operations also contaminated surface water in nearby Allen Harbor.



Figure A-69. Davisville Naval Construction Battalion Center site (Rhode Island)

In 1989, EPA added the site to the National Priorities List (NPL). The base on site closed in 1994, and the Base Realignment and Closure (BRAC) Act is addressing cleanup. In September 1997, the Rhode Island Port Authority, now called the Quonset-Davisville Redevelopment Corporation, leased about 704 acres of the site. Quonset-Davisville Redevelopment Corporation has since sold or conveyed the acreage through a Maritime Public Benefit Conveyance with 367 acres left in the lease. Further study is underway for this leased acreage. In May 2000, the town of North Kingstown received 189 acres of the site through a Public Benefit Conveyance for use as a park. There are restrictions on building construction over the groundwater plume. In 2003, a Public Benefit Conveyance gave another 15 acres of the site to the town of North Kingstown for use as a park. Restrictions limit the site to recreational use and land use requirements ensure the landfill cap is not damaged. Park and recreational land for the local community has been created. Almost 100 companies are located on site, employing approximately 2,600 people. The site is also the cornerstone of the Quonset Business Park, which is home to 200 companies and employs more than 10,000 people. There are two solar farms and unique solar and wind powered street lights in the Quonset Business Park.

**Newport Naval Education & Training Center**

The 1,063-acre Newport Naval Education & Training Center Superfund site is located in Newport, Middletown, Portsmouth and Jamestown, Rhode Island. Starting in 1900, the U.S Navy used the site as a refueling depot. From 1955 to the mid-1970s, an 11-acre portion of the site along the shore of Narrangansett Bay, known as McAllister Point Landfill, accepted wastes. Wastes were mostly domestic refuse, acids, solvents, paint and waste oil. Improper disposal activities at the site contaminated groundwater and soil.

EPA listed the site on the National Priorities List (NPL) in 1989. Cleanup activities include tank removal, groundwater treatment, landfill capping, contaminated marine sediment removal, off-site eelgrass restoration, and groundwater and sediment monitoring. The U.S. Navy continues ongoing investigations and cleanup, and continues to operate the site as a naval base. Several parcels and buildings with no Superfund involvement have already been transferred and have been redeveloped as a marina, community college campus and other uses. Non-Superfund parcels continue to be transferred.



Figure A-70. Newport Naval Education & Training Center site (Rhode Island)

# Vermont Reuse Summary Profiles

## *National Priorities List Sites*

**Elizabeth Mine**

The Elizabeth Mine Superfund site is located in Strafford and Thatford, Vermont. The site contains waste rock, roast beds and mine tailings left behind after 150 years of mining activity. Mining wastes contaminated groundwater, soil and sediment with heavy metals and acid-rock drainage. Mining wastes also contaminated the adjacent West Branch of the Ompompanoosuc River, Lord Brook and two tributaries.



Figure A-71. Solar array at Elizabeth Mine site (Vermont) *(Photo credit: Weston and Sampson, Conti Solar, and Elizabeth Mine Solar I, LLC)*

EPA placed the site on the National Priorities List (NPL) in June 2001. In 2005, EPA stabilized the tailing pile with soil and repaired the tailing dam, preventing the release of large quantities of mining waste and potential catastrophic loss of life and property downstream. EPA built a water treatment system in 2008. EPA consolidated and covered the mining waste in 2012 with reuse in mind. During cleanup, EPA restored 10 acres of wetland for ecological reuse. In 2014, the U.S. Army Corps of Engineers Sustainability Award Program presented the Green Dream Team Award to the Elizabeth Mine Superfund Site Project Delivery Team for wetland restorations at the site. As a result of the cleanup, the state of Vermont delisted the West Branch of the Ompompanoosuc River and Lord Brook from the Clean Water Act's impaired waters list. In 2017, a private developer installed a 4.9-megawatt solar array on the radiated tailings pile, which will supply energy to the Green Mountain Power grid and produce enough power for about 1,200 homes annually.

**Ely Copper Mine**

The 350-acre Ely Copper Mine Superfund site is located in Vershire, Vermont. From 1821 until 1920, copper mining operations generated piles of waste rock, smelter waste and tailings. Operators disposed of the materials on site. Mining operations stopped at the site in 1920; activities to remove dump-ore took place between 1949 and 1950.



Figure A-72. Former entrance to main mining shaft at Ely Copper Mine site (Vermont)

EPA placed the site on the National Priorities List (NPL) in 2001. EPA finalized cleanup plans for the site in 2016. Since 1950, activities at the site have included commercial timber management as well as hunting, snowmobile riding and horseback riding. The site also includes historic mining-related artifacts and provides habitat for several species of state and federal threatened and endangered bats.

**Pownal Tannery**

The 28-acre Pownal Tannery Superfund site is located in North Pownal, Vermont. Beginning in the late 1880s, a woolen mill occupied the site. Starting in 1935, a hide tanning and finishing facility operated on site. After the facility closed in 1988, EPA found contamination in groundwater, soil and sludge. EPA placed the site on the National Priorities List (NPL) in 1999. EPA led two emergency removal cleanup actions, removing contaminated materials and the tannery mill building, decontaminating a facility warehouse, and capping a facility landfill. EPA completed these activities in 2001. Further investigations resulted in a 1992 cleanup decision that included treating soil and sludge on site and placing it beneath a protective cap. The final remedy also required land use



Figure A-73. Pownal Tannery site (Vermont)

restrictions and long-term monitoring of groundwater and river sediments. EPA worked with the town of Pownal to coordinate reuse planning as part of the cleanup process. Funded by a 1999 Superfund Redevelopment pilot grant, the town developed plans for recreation areas and a new wastewater treatment plant on site. The treatment plant, completed in 2006, occupies part of the former lagoon area. The town of Pownal reused old forest beams from the former tannery building to build a recycling center and town equipment shed. Recreation areas include a small park, playing fields, benches, a historic marker near the North Pownal Bridge and walking paths in the former lagoon area. In 2017, Hoosic River Hydro LLC completed construction of a hydroelectric plant at a dam next to the site.

**Tansitor Electronics, Inc.**

The 44-acre Tansitor Electronics, Inc. Superfund site is located in Bennington, Vermont. About 36 acres of the site are located north of Route 9; the remainder of the site is located south of Route 9. Since 1956, various owners have made electrical components on part of the site. In 1981, Vishay-Tansitor notified EPA that operations between 1956 and 1979 had disposed of organic solvents and acids at the site. Disposal practices contaminated soil, sediment, groundwater and surface water.



Figure A-74. Tansitor Electronics, Inc. (Vermont)

EPA placed the site on the National Priorities List (NPL) in 1989. The selected cleanup plan included a waiver of groundwater standards for a 10-acre area of the site. The cleanup plan also included steps to address monitoring results and place restrictions on groundwater use. Outside the 10-acre area, groundwater contaminant concentrations are all below cleanup goals. EPA took the site off the NPL in 1999. Groundwater monitoring is ongoing. Vishay-Tansitor continues to operate its manufacturing facility on site. Forested wetlands cover most of the site south of Route 9.



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