



Superfund Sites Work for Communities:

How Superfund Redevelopment in EPA Region 10 Is Making a Difference in Communities

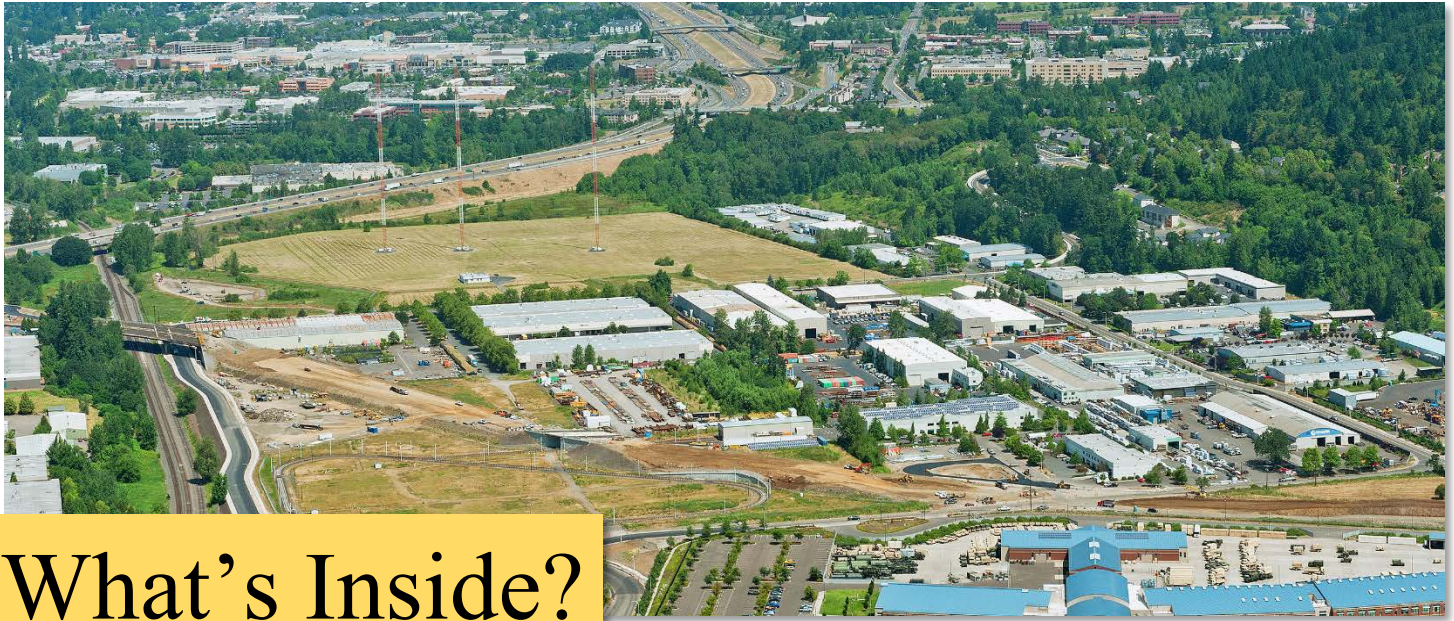


Figure 1: Northwest Pipe & Case/Hall Process Company site and surrounding area (Oregon) *Source: Oregon Department of Transportation*

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Cover page photos, clockwise from top left: Ketchikan Pulp Company site (Alaska), Asarco Inc. site (Washington), Reynolds Metals site (Oregon), Bunker Hill Mining & Metallurgical Complex site (Idaho)

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

Introduction

EPA Region 10 states and tribes – Alaska, Idaho, Oregon, Washington and 271 native tribes – are widely known for their remarkable scenery and deep ties to maritime industries, mining, metal refining, timber, and petroleum exploration and production. The region’s beauty, history and economic strength continue to attract new residents and visitors from across the country. Local governments, state agencies and diverse organizations in these western states work hard to help older, smaller communities remain vibrant while planning carefully to accommodate growth in major cities and suburbs. A key part of this work focuses on finding new uses for old industrial, timber and mining sites, including Superfund sites. The Superfund program in EPA Region 10 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 10 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 10 works closely with state and local officials to remove barriers that have kept many Superfund sites underused. EPA Region 10 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.

Superfund sites across Region 10 are home to industrial parks, large port operations, resorts, public service providers and neighborhoods. Many sites continue to host industrial operations such as large-scale manufacturing facilities as well as military operations. Others are now nature preserves, parks and recreation facilities. On-site businesses and organizations at current and former Region 10 Superfund sites provide an estimated 6,456 jobs and contribute an estimated \$491 million in annual employment income for Region 10 residents. Cleaned-up sites in use in Region 10 generate \$3.5 million in annual property tax revenues for local governments.¹

This profile looks at how reuse activities at Superfund sites make a difference in communities across Region 10. It updates the information presented in the 2014 profile. In particular, it describes some of the beneficial effects of reuse and continued

Region 10 Sites in Reuse and Continued Use: Business and Job Highlights

Businesses

128

Estimated Annual Sales

\$1.9 billion

Number of People Employed

6,456

Total Annual Employee Income

\$491 million



Figure 2: View of the Seattle skyline from Jack Block Park, located on the Pacific Sound Resources site (Washington)

¹ Business and property value tax figures represent only a subset of the beneficial effects of sites in reuse or continued use in Region 10. There are 42 Superfund sites in reuse or continued use in Region 10 for which EPA does not have business data, including 27 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 (parks, wetlands, ecological habitat, open space). There are 57 sites in reuse or continued use in Region 10 for which EPA does not have property value or tax data, including 27 NPL federal facilities.

use of current and former Superfund sites. The profile also describes the land values and property taxes associated with Superfund sites returned to use following cleanup 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, changes in the number of on-site businesses, changes in data availability, and changes in business and property value data. Figures presented represent only a subset of all Superfund sites in reuse or continued use in Region 10.

Support for Superfund Reuse

EPA Region 10 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 10 partners with stakeholders to encourage reuse opportunities at Superfund sites. Region 10 helps communities and cleanup managers consider reuse during cleanup planning and evaluate remedies already in place to ensure appropriate reuse at cleaned-up sites. In addition, EPA participates in partnerships with communities and encourages opportunities to support Superfund redevelopment projects that emphasize environmental and economic sustainability.

Specific reuse support efforts in EPA Region 10 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 10 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, such as the Rails-to-Trails Conservancy.
- Developing reuse fact sheets, videos, websites and reuse case studies to share opportunities and lessons associated with Superfund redevelopment.

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

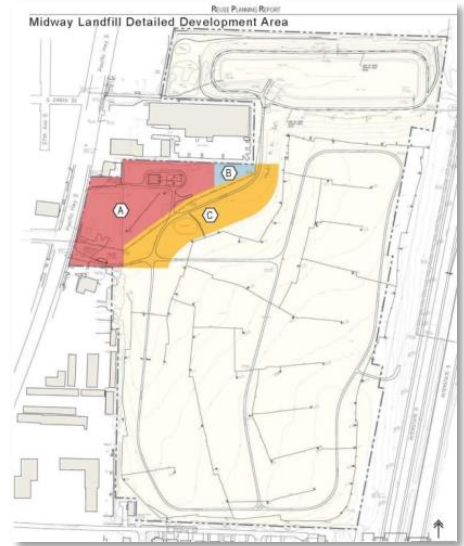


Figure 3: Reuse plan for the Midway Landfill site (Washington)



Figure 4: Reuse planning at the Wyckoff Co./Eagle Harbor site (Washington)

Superfund Reuse: The Big Picture

EPA can take and oversee immediate action at contaminated sites through short-term cleanup actions, also called removal actions. Then EPA refers sites to its remedial program or to state programs. The Superfund program's National Priorities List (NPL) is a list of the most serious sites EPA targets 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 selects a remedy. EPA then cleans up the site or oversees cleanup activities.² EPA has placed over 100 sites in Region 10 on the NPL.

Whenever possible, EPA seeks to integrate reuse priorities into site cleanup plans. In Region 10, 70 NPL sites and two non-NPL Superfund sites are in use. These sites have either new uses in place or uses that remain in place from before cleanup. Many of these sites have been redeveloped for commercial, industrial and residential purposes. Others have been redeveloped for recreational, ecological 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.

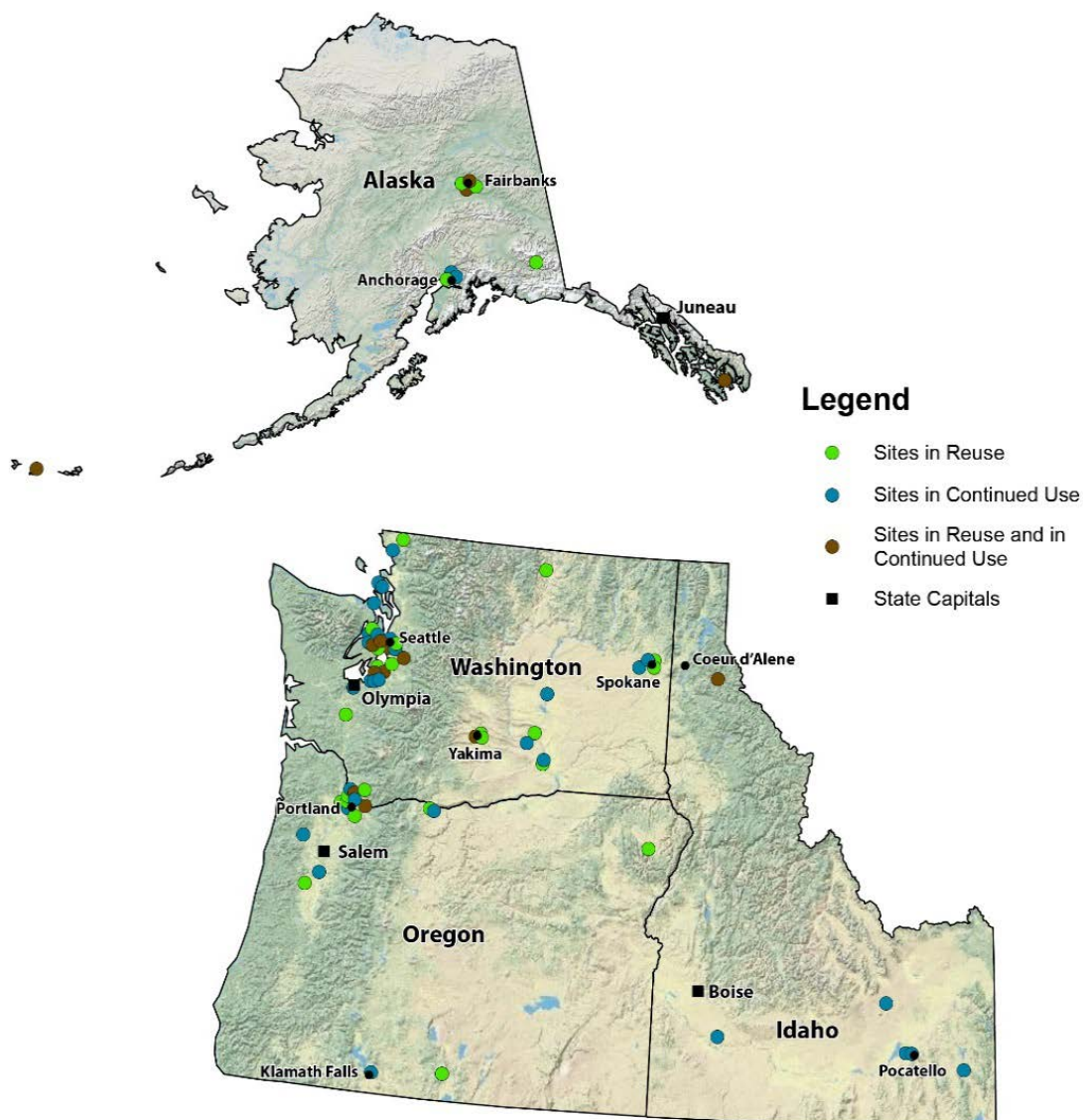


Figure 5: Sites in Reuse and Continued Use in Region 10

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

Beneficial Effects of Superfund Site Reuse in Region 10

Businesses and Jobs

EPA has collected economic data for nearly 130 businesses, government agencies and civic organizations operating on 29 NPL sites and one non-NPL site in reuse and continued use in Region 10.³ See the State Reuse Profiles (pages 13-16) for each Region 10 state's reuse details. Businesses and organizations located on these sites fall within several different sectors, including metal manufacturing, wholesale and retail trade, manufacturing, marine cargo handling, petroleum bulk stations and terminals, general freight trucking, and construction.

Businesses, facilities and organizations at these sites include courier and express delivery giant FedEx Ground, superstore Wal-Mart, fabricated metal manufacturer Oregon Iron Works, Inc., the Port of Tacoma, the Oregon Department of Transportation and the Silver Mountain Resort.

The businesses and organizations at these sites earn nearly \$2 billion in estimated annual sales, and employ about 6,500 people, earning an estimated \$491 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. In addition, most businesses operating on sites in Region 10 generate tax revenues through payment of state, corporate or related taxes.⁴ More detailed information is presented in Table 1.⁵



Figure 6: Pacific Sound Resources site (Washington)

Table 1. Site and business information for Region 10 sites in reuse and continued use (2015)

	Sites	Sites with Businesses ^a	Businesses ^b	Total Annual Sales ^c	Total Employees	Total Annual Employee Income
In Reuse	26	10	35	\$25 million	346	\$16 million
In Continued Use	32	10	28	\$102 million	1,027	\$71 million
In Reuse and in Continued Use	14	10 ^d	65	\$1.8 billion	5,083	\$404 million
Total	72	30^d	128	\$1.9 billion	6,456	\$491 million

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

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

^c For information on the collection of business, jobs and sales data, see the "Sources" section of this profile.

^d See footnote 1, page 3.

³ See footnote 1, page 3.

⁴ Oregon does not require that state residents pay sales tax. For more information, see the Oregon Department of Revenue website: <http://www.oregon.gov/DOR/Pages/index.aspx>.

⁵ For additional information on the collection of business, jobs and sales data, see the "Sources" section of this report.

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 10 Site Examples

- ***In Reuse:*** American Crossarm & Conduit, Co. (*Washington*) – a former wood-treating facility is now a machine and repair shop and a fitness center.
- ***In Continued Use:*** Teledyne Wah Chang (*Oregon*) – since 1956, the site has been home to one of the country's largest producers of rare earth metals and alloys.
- ***In Reuse and Continued Use:*** Commencement Bay, Near Shore/Tidal Flats (*Washington*) – many long-time businesses and homes remain in place; cleanup spurred the expansion of the Port of Tacoma and set the stage for the construction of Point Ruston, a state-of-the-art residential development.



Figure 7: Commencement Bay Nearshore/Tideflats site (Washington)

Property Values and Property Tax Revenues

Properties cleaned up under the Superfund program and returned to use may increase 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 Reynolds Metals site in Oregon are now valued at over \$145 million.

Identifying increases in property values and property taxes following cleanup and reuse is challenging due to insufficient data on historical property values and the difference in timing of events at sites and 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 tax data for 15 Superfund sites in reuse and continued use in Region 10.⁶ These sites span 228 property parcels and 1,253 acres. They have a total property value of \$562 million. Land and improvement property value information is available for 14 sites; these properties have a total land value of \$305 million and a total improvement value of \$255 million. Property tax information is available for all 15 sites.⁷ The properties generate a combined \$3.5 million in local property taxes annually.

Region 10 Sites in Reuse: Property Value and Tax Highlights

Total Property Value
\$562 million

Total Annual Property Taxes
\$3.5 million

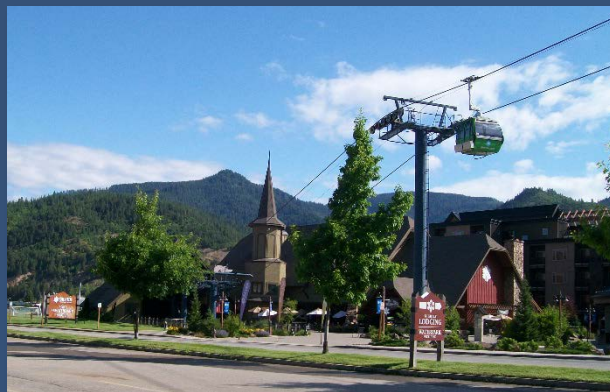


Figure 8: Silver Mountain Resort, located at the Bunker Hill Mining & Metallurgical Complex site (Idaho)

Table 2. Property value and tax information for sites in reuse and continued use in Region 10^a

Total Land Value (14 sites) ^b	Total Improvement Value (14 sites)	Total Property Value (15 sites)	Total Annual Property Taxes (15 sites)
\$305 million	\$255 million	\$562 million	\$3.5 million

^a Results are based on an EPA SRI effort in 2015 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 data sets, which varied from 2014 to 2016. For additional information, see the “Sources” section of this report.

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

⁶ There are 57 additional sites in reuse or continued use in Region 10 for which EPA does not have property value or tax data, including 27 NPL federal facilities.

⁷ 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 may be available.

Beneficial Effects from Enhanced Recreational, Ecological and Cultural Amenities

In addition to hosting office buildings, shopping centers and manufacturing facilities, many Region 10 sites in reuse provide recreational, ecological and cultural resources. While the beneficial effects from some of these reuses, such as new hiking trails or a park, are highly visible, others – such as improved wetland health or increased biodiversity – may become more evident over the long term. These cleanups also create, restore and protect ecosystems, both on site and off site, across Region 10.

The large, wide-open spaces at many Region 10 Superfund sites are well suited for a variety of recreational and ecological reuses following cleanup. For example, cleanup of the Oeser Company site in Bellingham, Washington, resulted in the restoration of creeks and wetland habitats as well as enhanced recreational trails at Little Squalicum Park.

The Luke Jensen Sports Park opened on the Boomsnub/Airco site in Vancouver, Washington in 2012. The Andrew Rypien Field sports complex at the Spokane Junkyard/Associated Properties site in Spokane, Washington, includes a baseball field and soccer fields. It serves over 4,500 neighborhood children.

Cleaned-up Superfund sites in Region 10 also provide cultural resources. An example is the Wyckoff Co./Eagle Harbor site in Puget Sound, Washington. The Bainbridge Island World War II Nikkei Exclusion Memorial Committee designed a memorial for the site in honor of Japanese-Americans forced into internment camps during World War II. In 2008, Congress and President Bush approved funding for the Bainbridge Island Nidoto Nai Yoni “Let it not happen again” Japanese American Memorial. It opened in August 2011. The memorial includes several walkways and a 276-foot memorial wall, representing one foot for each relocated resident. Additionally, the cleanup of some nearby sites, such as the Port Hadlock Detachment (USNAVY) site on Indian Island, has helped local tribes regain access to their fishing grounds. These recreational, ecological and cultural reuses help attract visitors and residents, and indirectly contribute to local economies.

Why Are Wetlands Economically Important?

Wetlands provide a variety of benefits. The combination of shallow water, high levels of nutrients and primary productivity is ideal for the development of organisms that form the base of the food web and feed many species of fish, amphibians, shellfish and insects. Wetlands are extremely effective in removing pollutants from water and act as filters for future drinking water. Wetlands play a role in reducing the frequency and intensity of floods. They can store large amounts of carbon. They also provide recreational amenities.

These benefits also have economic value. Replacing wetlands' water treatment services with manmade facilities, for example, would be expensive. Worldwide, wetlands provide an estimated \$14.9 trillion in ecosystem services. To learn more, see EPA's [Economic Benefits of Wetlands fact sheet](#).

See also [EPA's web page on the importance of wetlands](#).

See also the National Oceanic and Atmospheric Administration's website feature on [Carbon Sequestration](#).



Figure 9: Restored wetlands at the Oeser Company site (Washington)



Figure 10: Nidoto Nai Yoni “Let it not happen again” Japanese American Memorial (Washington)

Reuse in Action

Bunker Hill Mining & Metallurgical Complex – Recreational and Commercial Amenities for a Historic Mining Community

The Bunker Hill Mining & Metallurgical Complex Superfund site spans over 21 square miles in a historic mining region in northern Idaho and eastern Washington. More than a century of mining activities contaminated area soils, sediments, surface water and groundwater, making the area one of the largest and most complex Superfund sites in the country. EPA added the site to the NPL in 1983 and began extensive cleanup work. Cleanup and ecological restoration around the lead smelter included removal of lead-contaminated soil from lawns and parks, containment of tons of mine tailings, and planting of thousands of trees. Starting in 1987, the City of Kellogg began to pursue commercial and recreational redevelopment opportunities across cleaned-up portions of the site. After cleanup, construction of the Trail of the Coeur d'Alenes followed. The 72-mile recreational trail allows residents and visitors to explore Idaho's remarkable landscapes. Additionally, the Silver Mountain Resort, located in Kellogg, includes a luxury hotel, a neighborhood and commercial areas. Recreational opportunities at the resort include a waterpark, skiing, hiking trails and an 18-hole golf course. The resort generates an estimated \$3.9 million in annual sales and contributes almost \$1.8 million in estimated annual employment income. Other reuses in the area include Silver Valley Business Center, which supports a variety of industrial and commercial businesses, and restored ecological lands. In addition, EPA and the Idaho Department of Environmental Quality's Restoration Partnership worked together to convert about 400 acres of agricultural property near the site into healthy wetland habitat. The area is now home to many wetland bird species, including swans and ducks.



Figure 11: Waterfowl in restored habitat at the Bunker Hill Mining & Metallurgical Complex site (Washington)

Northwest Pipe & Casing/Hall Process Company – Commercial, Government and Industrial Operations, and Sunrise Corridor Construction

Metal pipe manufacturing at the Northwest Pipe & Casing/Hall Process Company Superfund site, in Clackamas, Oregon took place from 1956 to 1985. Improper waste disposal activities at the 53-acre area contaminated soil, surface water and groundwater. EPA added the site to the NPL in 1992. Following cleanup, local government agencies and businesses showed interest in an array of redevelopment opportunities for the site. Today, the site hosts continued and new uses, including warehouse, light industrial, commercial and government office spaces. A streetcar test track and maintenance facility are also located on site.

EPA and state investigation and cleanup efforts have been compatible with continued uses, as well as new development at the site. Major employers include Oregon Iron Works and the Oregon Department of Transportation (ODOT).⁸ ODOT is also extending a highway across the site as part of the Sunrise Corridor Project, which is designed to relieve regional traffic congestion. A new ODOT road with bike lanes and sidewalks along the western part of the site has enhanced area infrastructure. Together, on-site businesses employ 214 people and contribute about \$10 million in annual employment income.



Figure 12: Sunrise Corridor connector extending over new street, next to the ODOT maintenance facility at the Northwest Pipe & Casing/Hall Process Company site (Oregon)

⁸ In May 2014, Oregon Iron Works merged with Vigor Industrial. Oregon Iron Works is now a wholly owned subsidiary of Vigor Industrial.

Pacific Sound Resources – Port of Seattle Expansion and Jack Block Park

The 83-acre Pacific Sound Resources (PSR) Superfund site is located on the south shore of Elliott Bay on the Puget Sound in Seattle, Washington. From the turn of the century until 1994, a wood-treating facility operated on site, releasing hazardous wastes into the ground and the marine environment. EPA listed the site on the NPL in 1994. Later that year, with a prospective purchaser agreement in place, the Port of Seattle purchased 25 acres of the site property. In 1998, following cleanup, the Port opened an expanded container cargo terminal and a public shoreline area on site.

Today, Terminal 5 is one of the Port's largest container handling and storage facilities. The integration of rail into terminal cargo shipping operations helped reduce the terminal's dependency on truck transport of ship cargo, lowering the Port's carbon footprint and improving air quality. In busy periods, nearly 500 workers support cargo transfer operations at the terminal. Following cleanup, the Port also worked with federal, state and City of Seattle agencies on the 5.8-acre Jack Block Park. It provides walking trails, access to the Elliott Bay shoreline for boaters, and impressive views of the Seattle skyline, Puget Sound and shipping activity at Terminal 5.



Figure 13: Part of the container terminal facility and public shoreline access area at the Pacific Sound Resources site (Washington)

Reynolds Metals Company – Port of Portland's Troutdale Reynolds Industrial Park

The Reynolds Metals Company Superfund site spans over 700 acres. It is located about 20 miles east of Portland, Oregon, and just over one mile north of the City of Troutdale. From the 1940s until 2000, the Reynolds Metals plant operated an aluminum smelting facility on 80 acres of the site. Smelting activities resulted in the contamination of groundwater, surface water, sediments and soils. EPA listed the site on the NPL in 1994. Alcoa purchased the property in 2000, began demolishing the plant in 2003, and sold the property to the Port of Portland in 2007. The Port then developed a three-phase master plan for the area, now called the Troutdale Reynolds Industrial Park, or TRIP.

While the overall goal was to turn TRIP into an economic engine for the region, creating investment and employment opportunities, the plan also balanced development with open space and recreation opportunities. The plan preserved 350 acres of open space and included an extension of a regional recreation trail. Between 2008 and 2010, the Port implemented Phase I of its plan, making 131 acres available for reuse. The Port leveled and raised the Phase I area's grade and put new infrastructure in place. In October 2008, FedEx Ground purchased 78 acres of property in the Phase I development area. In 2010, FedEx Ground completed construction of a 441,000-square-foot regional distribution facility. Preparation of the Phase II area is currently underway. The \$200 million FedEx Ground distribution center contributes nearly \$48 million in estimated annual income to the local economy. The Port, the City of Troutdale and other stakeholders are actively working to expand TRIP's tenant base. Once fully built out, the Port estimates that TRIP will generate 3,500 new jobs, \$141 million in annual income and \$46 million in annual state and local taxes.



Figure 14: Area available for redevelopment at the Troutdale Reynolds Industrial Park on the Reynolds Metals Company site (Oregon)

State Reuse Profile: Alaska

EPA partners with the Alaska Department of Environmental Conservation to oversee the investigation and cleanup of Superfund sites in Alaska. Alaska has 10 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for eight business and organizations operating on two sites in reuse and continued use in Alaska. The businesses and organizations employ about 70 people and contribute an estimated \$4 million in annual employment income.

Table 3. Detailed site and business information for Superfund sites in reuse and continued use in Alaska (2015)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	4	0	0	\$0	0	\$0
In Continued Use	2	0	0	\$0	0	\$0
In Reuse and in Continued Use	4	2	8	\$3 million	70	\$4 million ^c
Total	10	2	8	\$3 million	70	\$4 million^c

^a Six sites are federal facilities. Federal facility sites are not included in calculations of total sites with businesses, businesses, sales, employees or income.

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

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

Property Values and Property Tax Revenues

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

Did You Know?

Businesses at the Ketchikan Pulp Company site in Ward Cove, near Ketchikan, Alaska, employ 63 people and contribute an estimated \$4 million in annual income. Gateway Forest Products operates a sawmill on part of the site. Alcan Lumber Company also uses the former mill area for log storage and sorting.

State Reuse Profile: Idaho

EPA partners with the Idaho Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Idaho. Idaho has six Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for seven businesses and organizations operating on four sites in reuse and continued use in Idaho. The businesses and organizations employ over 800 people and contribute an estimated \$36 million in annual employment income.

Table 4. Detailed site and business information for Superfund sites in reuse and continued use in Idaho (2015)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	0	0	0	\$0	0	\$0
In Continued Use	5	3	4	\$79 million	498	\$31 million
In Reuse and in Continued Use	1	1	3	\$5 million	315	\$5 million
Total	6	4	7	\$84 million	813	\$36 million

^a Two sites are federal facilities. Federal facility sites are not included in calculations of total sites with businesses, businesses, sales, employees or income.

^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 Idaho.

Did You Know?

Cleanup of the 17-acre Pacific Hide & Fur Recycling Co. site in Pocatello, Idaho, enabled the continued operation of a metal salvaging business. Today, Pacific Steel & Recycling, Inc. is 100 percent employee-owned and employs 21 people, contributing over \$750,000 in estimated annual employment income.

State Reuse Profile: Oregon

EPA partners with the Oregon Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Oregon. Oregon has 13 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 20 businesses and organizations operating on eight sites in reuse and continued use in Oregon. The businesses and organizations employ about 1,500 people and contribute an estimated \$75 million in annual employment income.

Table 5. Detailed site and business information for Superfund sites in reuse and continued use in Oregon (2015)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	7	4	13	\$19 million	258	\$13 million
In Continued Use	5	3	6	\$6 million	129	\$14 million ^c
In Reuse and in Continued Use	1	1	1	\$1 million	1,100	\$48 million ^c
Total	13	8	20	\$26 million	1,487	\$75 million^c

^a One site is a federal facility. Federal facility sites are not included in calculations of total sites with businesses, businesses, sales, employees or income.

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

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

Property Values and Property Tax Revenues

EPA has collected property value data for four Superfund sites in reuse and continued use in Oregon. These sites span 33 property parcels and 376 acres. They have a total property value of \$171 million. Detailed property value information is available for three sites. Together, the site properties have a total land value of \$69 million and a total improvement value of \$100 million. Property tax information is available for all four sites. Properties at these sites generate a combined \$1.5 million in property taxes.

Table 6. Property value and tax information for sites in reuse and continued use in Oregon^a

Total Land Value (3 sites)	Total Improvement Value (3 sites)	Total Property Value (4 sites)	Total Annual Property Taxes (4 sites)
\$69 million	\$100 million	\$171 million	\$1.5 million

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

Did You Know?

The Allied Plating Inc. site in Portland, Oregon – previously a chrome plating facility – is now home to two new businesses. One makes and installs fire prevention sprinkler systems. The other stores heavy equipment. Together, the businesses employ 27 people and contribute an estimated \$1.8 million in annual employment income.

State Reuse Profile: Washington

EPA partners with the Washington Department of Ecology to oversee the investigation and cleanup of Superfund sites in Washington. Washington has 43 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 93 businesses and organizations operating on 16 sites in reuse and continued use in Washington. The businesses and organizations employ 4,086 people and contribute an estimated \$376 million in annual employment income.

Table 7. Detailed site and business information for Superfund sites in reuse and continued use in Washington (2015)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	15	6	22	\$6 million	88	\$3 million
In Continued Use	20	4	18	\$17 million	400	\$26 million ^c
In Reuse and in Continued Use	8	6	53	\$1.8 billion	3,598	\$347 million
Total	43	16	93	\$1.8 billion	4,086	\$376 million

^a Eighteen sites are federal facilities. Federal facility sites are not included in calculations of total sites with businesses, businesses, sales, employees or income.

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

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

Property Values and Property Tax Revenues

EPA has collected property value data for 11 Superfund sites in reuse and continued use in Washington. These sites span 193 property parcels and 877 acres. They have a total property value of \$391 million. Detailed property value information is available for all 11 sites. Together, the site properties have a total land value of \$236 million and a total improvement value of \$155 million. Property tax information is available for all 11 sites. Properties at these sites generate a combined \$2 million in property taxes.

Table 8. Property value and tax information for sites in reuse and continued use in Washington

Total Land Value (11 sites)	Total Improvement Value (11 sites)	Total Property Value (11 sites)	Total Annual Property Taxes (11 sites)
\$236 million	\$155 million	\$391 million	\$2 million

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

Did You Know?

Since 1943, the Oeser Company has prepared and treated wood poles for utility companies. Cleanup of the Oeser Company site finished in 2009; the business has continued to operate on site. Cleanup actions also supported reuse opportunities by restoring surrounding creek and wetland areas and extending walking trails through the Little Squalicum Creek Area.



Figure 15: Little Squalicum Park (Washington)

Reuse on the Horizon in Region 10

Transformation from Smelter to Mixed-Use Community Asset

The Asarco Inc. (Asarco Tacoma Smelter) site is located in Ruston and Tacoma, Washington, on Commencement Bay. It is part of the Commencement Bay/Nearshore Tideflats Superfund site. Like many ports across the country, the shores of Commencement Bay have long been home to industry. From 1890 to 1985, Asarco used the site to smelt and refine lead and copper. These activities resulted in the release of metals into the soil, air, bay surface water and groundwater. In 1983, EPA listed the site on the NPL.

The cleanup and redevelopment of the 67-acre Asarco Tacoma Smelter site is a model of cooperation between EPA, the community and a land development company. After public meetings, Asarco and EPA developed a comprehensive plan for cleanup that incorporated local redevelopment ideas. In 2006, Point Ruston, LLC purchased the property and agreed to take over the cleanup. Activities included cleaning up the Asarco smelter, capping the project area, cleaning up offshore sediments, excavating shallow contaminated sediments and armoring the shoreline against erosion.

Following cleanup, the stage was set for two waterfront developments – the transformation of the former smelter into Point Ruston, a planned mixed-use development with homes, stores, office space and recreational amenities, and an 11-acre Metro Parks project on the former slag peninsula. Thirty-six single-family houses are now located on the upper portion of Stack Hill, the 12-acre bluff overlooking the site. The 173-unit Copperline Apartment complex opened on site in the spring of 2013. Since that time, 95 other apartments and 83 condominiums have been built. The residences offer waterfront views and state-of-the-art amenities. Building construction focused on environmental stewardship and sustainable development practices. Every home on Stack Hill is dual-certified Built Green® and Energy Star®.

Point Ruston's urban village – the Shops at the Waterwalk – includes shops, restaurants, cafes and a multiplex theater topped with apartments. The Silver Cloud at Point Ruston – a 175-room, 4-star hotel – is located on the waterfront as well. It includes a restaurant and lounge as well as pool and conference facilities. The Grand Plaza hosts community activities such as art walks, farmer's markets and special events. Plans call for preserving about half of Point Ruston's acreage as open public space.

Construction of the 11-acre Metro Parks project is also underway. Park development includes workers lining the shoreline with large rocks to keep sediment in place and placing soil material from other Metro Parks excavations atop the slag to build mounds on the peninsula. Reuse of this soil is saving the city millions of dollars. Workers will then cap the peninsula with a foot of clean soil and construct running paths and other recreation amenities.



Figure 16: Construction of capped surfaces at the Asarco Inc. site (Washington)



Figure 17: Construction underway at the Asarco Inc. site (Washington)



Figure 18: Cinema at the Asarco Inc. site (Washington)

Conclusion

EPA works closely with its partners at Superfund sites across the Pacific Northwest to make sure that 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 70 NPL sites and two non-NPL Superfund sites in Region 10 that have either new uses in place or uses that have remained in place since before cleanup. Future uses are planned for many more Superfund sites in Region 10, including at least one site in each of the four Region 10 states. EPA remains committed to working with all stakeholders to support Superfund redevelopment opportunities in Region 10.

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.

Superfund sites are now home to large commercial and residential developments, mid-sized developments providing services to surrounding communities, 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 19: Wyckoff Co./Eagle Harbor site
(Washington)

EPA Superfund Site Reuse Resources

Superfund Sites in Reuse: find more information about Superfund sites in reuse
www2.epa.gov/superfund-redevelopment-initiative/find-sites-reuse

EPA Region 10 Superfund Redevelopment Initiative Coordinator
Kira Lynch | 206-553-2144 | lynch.kira@epa.gov

SRI Website: tools, resources and more information about Superfund site reuse
www2.epa.gov/superfund-redevelopment-initiative

EPA Office of Site Remediation Enforcement Website: tools that address landowner liability concerns
www2.epa.gov/enforcement/landowner-liability-protections

Sources

Business, Job and Sales 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. Both 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 corresponding with each type of business with weekly wage data for corresponding businesses. If weekly wage data is not available at the county level, EPA uses wage data by state or national level, respectively. In cases where wage data is 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 report were collected in 2015. Annual employment income is based on job data estimated in 2015 using BLS average weekly wage data for those jobs from 2014 (the latest available wage data at the time of this report). All income and sales figures presented have been rounded for the convenience of the reader. Federal facility sites are not included in calculations of total sites with businesses, businesses, jobs, income or annual sales.

Property Value and Tax Information

EPA collected on-site property values and property taxes included in this report 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 data sets. 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. All figures presented have been rounded for the convenience of the reader.

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. Links to EPA's SRI case studies are included below.

SRI Redevelopment Beneficial Effects Case Studies

Pacific Sound Resources site. 2013. [Reuse and the Benefit to Community: Pacific Sound Resources Superfund Site.](#)

Reynolds Metals Company site. 2015. [Reuse and the Benefit to Community: Reynolds Metals Company Superfund Site.](#)

Northwest Pipe & Casing/Hall Process Company site. 2015. [Reuse and the Benefit to Community: Northwest Pipe & Casing/Hall Process Company Superfund Site.](#)

SRI Celebrating Success Fact Sheets

[Bunker Hill site](#). 2009.

[Boomsnub/Airco site](#). 2014.

Port of Portland. Press release. “[Port moves forward on second phase of development at Troutdale Reynolds Industrial Park](#).”

Other Resources

Silver Mountain Resort website: www.silvermt.com

Point Ruston website: www.pointruston.com



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