



August 2017



PUTTING SITES TO WORK

How Superfund Redevelopment in the Southeast Region Is Making a Difference in Communities



Figure 1. Martin-Marietta, Sodyeco, Inc. site (North Carolina)

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Cover page photos, clockwise from top left: Calhoun Park site (South Carolina), Munisport Landfill site (Florida), Cabot Koppers site (Florida), LCP Chemicals Georgia site (Georgia), Sherwood Medical Industries site (Florida)

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

EPA's Region 4 office serves the southeastern United States – Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee – one of the most populous and fastest growing regions in the country. Today, building on a range of innovative initiatives, state and local leaders are fostering economic growth, emphasizing workforce development and revitalizing contaminated lands, including Superfund sites. The Superfund program in EPA Region 4 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, EPA Region 4 helps communities reclaim cleaned-up Superfund sites. Factoring in future use of Superfund sites into the cleanup process promotes their safe redevelopment. In addition, EPA Region 4 works closely with state and local officials to remove barriers that have kept many Superfund sites underused. EPA Region 4 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 4 are home to industrial and commercial parks, retail centers, government offices, and neighborhoods. Many sites continue to host industrial operations such as large-scale manufacturing facilities. Others are now nature preserves, parks and recreation facilities. On-site businesses and organizations at current and former Region 4 Superfund sites provide an estimated 14,868 jobs and contribute an estimated \$848 million in annual employment income. Cleaned-up sites in use in Region 4 generate \$8 million in annual property tax revenues for local governments.¹

This 2017 profile looks at how reuse activities at Superfund sites make a difference in communities across Region 4. 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 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 4.

¹ Business and property value tax figures represent only a subset of the beneficial effects of sites in reuse or continued use in Region 4. There are 47 Superfund sites in reuse or continued use in Region 4 for which EPA does not have business data, including 19 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 72 sites in reuse or continued use in Region 4 for which EPA does not have property value or tax data, including 19 NPL federal facilities.

Region 4 Sites in Reuse and Continued Use: Business and Job Highlights

Businesses

519

Estimated Annual Sales

\$4.1 billion

Number of People Employed

14,868

Total Annual Employee Income

\$848 million



Figure 2. A car dealership uses part of the Hercules 009 Landfill site (Georgia)

Support for Superfund Reuse

EPA Region 4 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 4 partners with stakeholders to encourage reuse opportunities at Superfund sites. Region 4 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 4 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 4 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 Academy of Model Aeronautics.
- Developing reuse fact sheets, videos, websites and reuse case studies to share opportunities and lessons associated with Superfund redevelopment.

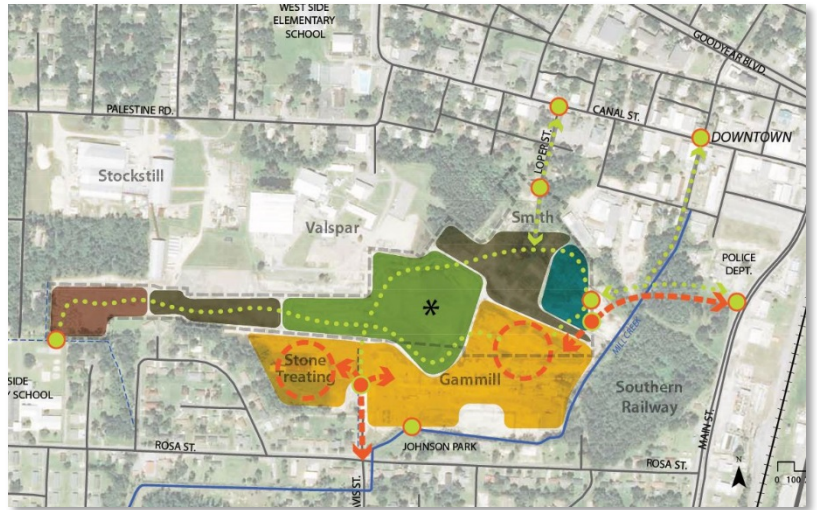


Figure 3. The concept plan for reuse at the Picayune Wood Treating site (Florida)

All of these efforts have helped build expertise across the Southeast, 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. 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.² EPA has placed over 240 sites in Region 4 on the NPL. It oversees investigation and cleanup at 18 Superfund Alternative Approach sites in the region.

Whenever possible, EPA seeks to integrate reuse priorities into site cleanup plans. In Region 4, 123 NPL sites and 16 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.

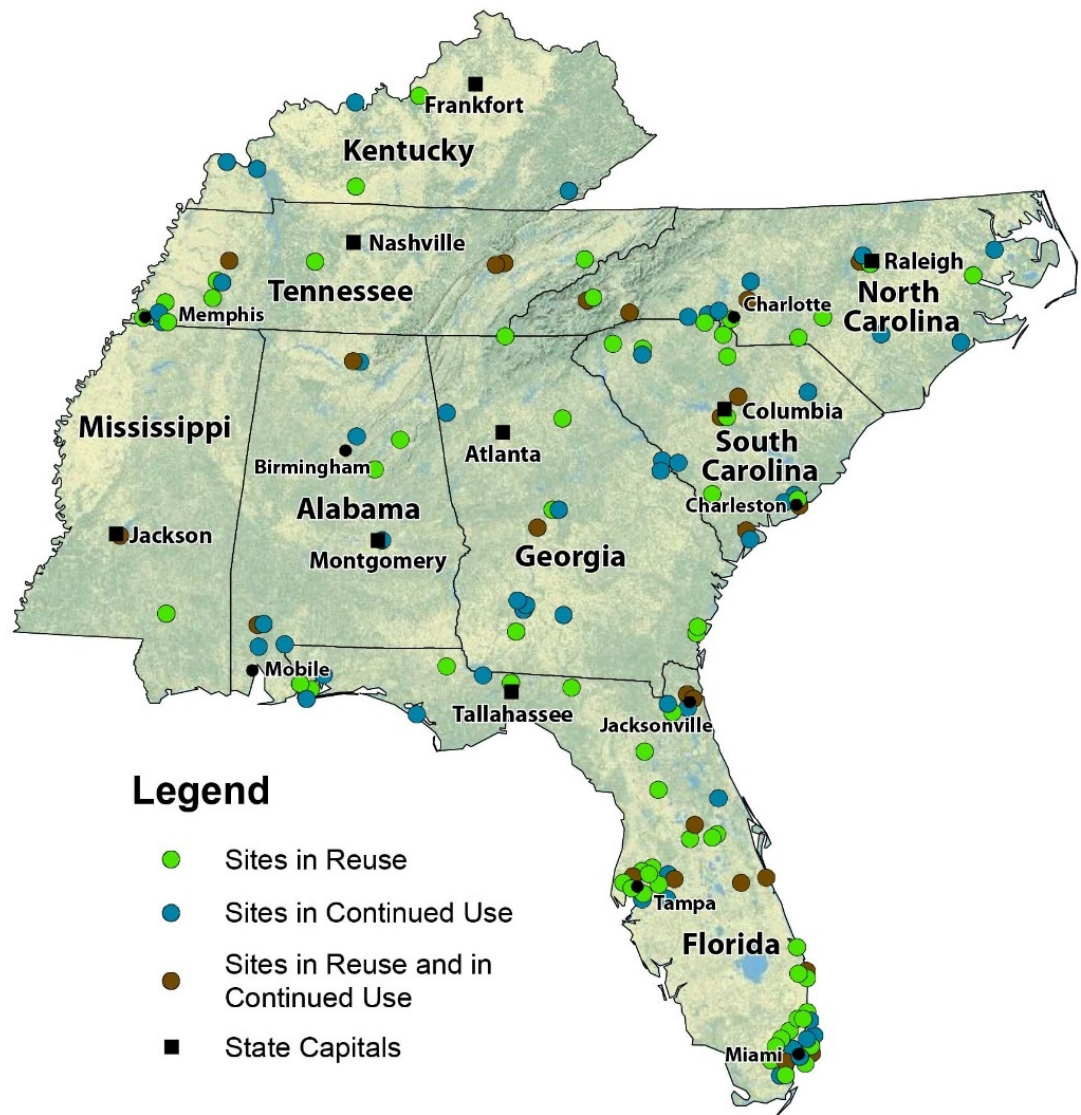


Figure 4. Sites in reuse and continued use in Region 4

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

Beneficial Effects of Superfund Site Reuse in Region 4

Businesses and Jobs

EPA has collected economic data for nearly 520 businesses, government agencies and civic organizations operating on 84 NPL sites and eight non-NPL sites in reuse and continued use in Region 4.³ (See the State Reuse Profiles on pages 11-18 for each state's reuse details.) Businesses and organizations located on these sites fall within several different sectors, including manufacturing, government, wholesale trade and retail trade.

Businesses, facilities and organizations at these sites include chemical manufacturing plants Olin Corporation and Akzo Nobel Functional Chemical, the Miami-Dade County Public Works Department, medical equipment manufacturer Covidien, aircraft manufacturer Piper Aircraft, and electrical lighting wholesaler GE Lighting Systems.

The businesses and organizations at these sites earn over \$4 billion in estimated annual sales and employ nearly 15,000 people earning an estimated \$848 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



Figure 5. The South Carolina Aquarium at the Calhoun Park Area site (South Carolina)

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 4 Site Examples

- **In Reuse:** Taylor Road Landfill (*Florida*) – a former landfill is now home to a truck dealership and a restaurant.
- **In Continued Use:** Macon Naval Ordnance Plant (*Georgia*) – since 1980, industrial businesses have been operating in the Allied Industrial Park.
- **In Reuse and Continued Use:** Calhoun Park (*South Carolina*) – an electrical substation remains in place and provides electricity to most of downtown Charleston. New businesses, a green space and the entire shoreline were redeveloped after remediation.

³ See footnote 1, page 3.

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

Table 1. Site and business information for Region 4 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	63	36	128	\$415 million	2,566	\$109 million
In Continued Use	51	36	249	\$2.5 billion	8,599	\$479 million
In Reuse and in Continued Use	25	20	142	\$1.2 billion	3,703	\$260 million
Total	139	92^e	519	\$4.1 billion	14,868	\$848 million

^a Nineteen 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.

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 Harris Corp. (Palm Bay Plant) site in Florida are now valued at nearly \$109 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 67 Superfund sites in reuse and continued use in Region 4.⁵ These sites span 410 property parcels and 10,061 acres. They have a total property value of \$605 million. The average total property value per acre is \$60,000.

Land and improvement property value information is available for 65 sites. These properties have a total land value of \$287 million and a total improvement value of \$207 million.

Region 4 Sites in Reuse and Continued Use: Property Value and Tax Highlights

Total Property Value
\$605 million

Total Annual Property Taxes
\$8 million



Figure 6. ReVenture Eco-Industrial Park at the Martin-Marietta, Sodyeco, Inc. site (North Carolina)

⁵ There are 72 additional sites in reuse or continued use in Region 4 for which EPA does not have property value or tax data, including 19 NPL federal facilities.

Property tax information is available for 66 sites.⁶ The properties generate a combined \$8 million in local property taxes annually.

Table 2. Property value and tax information for sites in reuse and continued use in Region 4^a

Total Land Value (65 sites) ^b	Total Improvement Value ^c (65 sites)	Total Property Value (67 sites)	Total Property Value per Acre (66 sites) ^d	Total Annual Property Taxes (66 sites)
\$287 million	\$207 million	\$605 million	\$60,000	\$8 million

^a Results are based on an EPA Superfund Redevelopment Initiative 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 2014 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 Improvement value for three of the sites is listed as \$0.

^d Based on total property value amount of \$604 million divided by total acreage of 10,061. One site lacks detailed acreage data; this site was excluded from the total property value per acre calculation.

Recreational and Ecological Benefits

In addition to serving as locations for commercial offices, retail centers and manufacturing facilities, some Region 4 sites in reuse provide recreational and ecological benefits. At the Camilla Wood Preserving Company site in Georgia and the Davie Landfill site in Florida, for instance, redevelopment includes sports fields and other recreation facilities for nearby communities. Sites in ecological reuse include the Northwest 58th Street Landfill site in Florida, which hosts restored wetlands. The Triana/Tennessee River site in Alabama is now part of the Wheeler National Wildlife Refuge. These recreational and ecological reuses help attract visitors and residents, and indirectly contribute to local economies.



Figure 7. Davie Landfill site (Florida)

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, nepis.epa.gov/Exe/ZyPDF.cgi/2000D2PF.PDF?Dockey=2000D2PF.PDF.

See also EPA's webpage on the importance of wetlands, www.epa.gov/wetlands/why-are-wetlands-important.

See also the National Oceanic and Atmospheric Administration's website feature on Carbon Sequestration, www.habitat.noaa.gov/coastalcarbonsequestration.html.

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 may be available.

Reuse in Action

Townsend Saw Chain Co. – Cleanup Enables Commercial Development

The 50-acre Townsend Saw Chain Co. Superfund site is located in Pontiac, South Carolina. From 1964 until 1981, two companies manufactured metal products here, including office recording equipment and saw chain components for chainsaws. Facility operators improperly disposed of wastewater generated from site operations. These practices resulted in the contamination of site soils and groundwater with heavy metals and volatile organic compounds.

EPA added the site to the NPL in 1990. Cleanup activities included excavation and disposal of contaminated soils and sediments, surface soil treatment, operation of a groundwater pump-and-treat system, institutional controls and groundwater monitoring.

The successful cleanup of the site allowed for redevelopment of the property. Of the original 50 acres, 36 have been sold for commercial development. Centerline Development, LLC retains ownership of the remaining 15 acres.

Presently, 17 businesses operate on site. These include a veterinary hospital, a kennel, a hotel and an auto-body shop. Additional site uses include a professional and industrial park, retail stores, a gas station and restaurants. AMBAC International (formerly American Bosch), a manufacturer and supplier of fuel injection equipment, operates at the former Townsend manufacturing facility. Together, these businesses employ 250 people, contribute close to \$8 million in annual employee income, and generate almost \$61 million in annual sales. The 2017 assessed values of site properties was nearly \$11 million, resulting in over \$300,000 in local property taxes.



Figure 8. AMBAC International at the Townsend Saw Chain Co. site (South Carolina)

Benfield Industries – New Facilities for a Social Enterprise Manufacturing Business

The Benfield Industries, Inc. site is located in Waynesville, a small town in western North Carolina. A furniture and mattress manufacturing facility operated on site from 1904 until the mid-1970s. A bulk chemical mixing and packaging plant operated there from 1976 until a fire destroyed the facility in 1982.

High concentrations of polycyclic aromatic hydrocarbons (PAHs) in soil and groundwater led EPA to add the site to the NPL in 1989. Soil treatment is complete. Groundwater monitoring is ongoing.

Haywood Vocational Opportunities, Inc. (HVO), the nation's largest manufacturer of custom medical drapes, was interested in expanding its facilities. HVO is a nonprofit social enterprise business in Waynesville that provides vocational training and employment opportunities to adults with disabilities.

After EPA worked with HVO to address its safety and liability concerns, HVO acquired the vacant 6-acre site property at auction in 2002. HVO completed redevelopment in 2004 and expanded its facilities in 2008 and 2010, with 4 acres for buildings and parking lots and the remaining 2 acres set aside as green space. HVO generates an estimated \$36 million in annual sales, and contributes an estimated \$8.3 million in annual employee income. HVO acquired the site property for \$250,000. In 2017, its assessed value was over \$3.4 million. EPA Region 4 honored HVO with its Excellence in Site Reuse Award in 2013 for going above and beyond to reuse the property and support its operations as the fifth largest employer in Haywood County.



Figure 9. Haywood Vocational Opportunities, Inc. at the Benfield Industries, Inc. site (North Carolina)

Harris Corp. (Palm Bay Plant) – Enabling Continued Operations While Supporting New Public Services

The 310-acre Harris Corp. (Palm Bay Plant) Superfund site is located in Palm Bay, Florida. Since the 1950s, a variety of manufacturing activities have taken place at the site. These activities include communications and electronics manufacturing, painting operations, semiconductor manufacturing and metal operations. Chemical releases resulting from fires and an acid line leak contaminated site groundwater.

EPA added the site to the NPL in 1987. Cleanup activities included extraction and treatment of contaminated groundwater. Groundwater monitoring continues.

The successful cleanup of the site allowed for continued manufacturing operations on the property. Intersil Corporation (Intersil) manufactures semiconductors, while Harris Corp. manufactures government communications systems. In April 2010, Intersil announced the donation of Building 54, an on-site \$13 million state-of-the-art semiconductor wafer fabrication facility. It consists of more than 100,000 square feet of office space, manufacturing and cleanroom facilities and research facilities. The University of Central Florida planned to use the donated facility, but Intersil is now working with the Florida Institute of Technology (FIT) so that FIT can complete their purchase of the facilities as well as five acres of the site.

Intersil also leases portions of its property for use by other companies. In February 2015, Harris Corporation opened a new 464,000-square-foot, \$130 million technology center that houses more than 1,400 engineers and staff. The Center's construction created nearly 300 jobs for workers in the area. In total, site businesses employ 754 people, contributing over \$70 million in annual employee income. In 2016, the value of site properties exceeded \$109 million, resulting in over \$1.7 million in local property taxes.

BMI-Textron and Trans Circuits, Inc. – High-Tech Manufacturing Facilities

Parts manufacturing for electronic circuit boards left the BMI-Textron and Trans Circuits, Inc. sites in southeast Florida contaminated, underused and in need of restoration.

EPA placed both sites on the NPL for cleanup. To make cleanup and reuse happen, EPA and the Florida Department of Environmental Protection (FDEP) worked with site owners, a responsible party and interested businesses. Project priorities included making sure site businesses could remain open during cleanup, designing remedies compatible with ongoing and potential future site uses, and addressing liability concerns.

The remedies included soil removal, groundwater treatment, and institutional controls to guide redevelopment and groundwater use that allowed many businesses in the industrial park to remain open throughout the cleanup process. Florida Aero Precision, Inc., an aerospace parts manufacturer, first purchased the BMI-Textron site for production facilities. It then expanded its operations at the Trans Circuits, Inc. site, purchasing the property in 2011.

Businesses located on site employ about 90 people, contribute an estimated \$6.5 million in employee income and generate an estimated \$18.7 million in business sales. The total property value of the two sites is estimated at \$3.5 million. Together, they generate over \$85,000 in annual property taxes.



Figure 10. Harris Corp. is headquartered in Melbourne, Florida at the Harris Corp. (Palm Bay Plant) site (Florida)



Figure 11. Florida Aero Precision operates on the BMI-Textron and Trans Circuits, Inc. sites (Florida)

State Reuse Profile: Alabama

EPA partners with the Alabama Department of Environmental Management to oversee the investigation and cleanup of Superfund sites in Alabama. Alabama 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 31 business and organizations operating on seven sites in reuse and continued use in Alabama. The businesses and organizations employ over 800 people and contribute an estimated \$66 million in annual employment income.

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

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	2	0	0	\$0	0	\$0
In Continued Use	6	6	28	\$195 million	551	\$43 million
In Reuse and in Continued Use	2	1	3	\$540 million	263	\$23 million
Total	10	7	31	\$735 million	814	\$66 million

^a Three 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 three Superfund sites in reuse and continued use in Alabama. These sites span 48 property parcels and 3,605 acres. They have a total property value of \$52 million. Detailed property value information is available for all three sites. Together, the site properties have a total land value of \$46 million and a total improvement value of \$6 million. Property tax information is available for all three sites. Properties at these sites generate a combined \$318,000 in property taxes.

Table 4. Property value and tax information for sites in reuse and continued use in Alabama^a

Total Land Value (3 sites)	Total Improvement Value (3 sites)	Total Property Value (3 sites)	Total Annual Property Taxes (3 sites)
\$46 million	\$6 million	\$52 million	\$318,000

^a The property value and tax amounts reflect the property value year and tax data year of 2016, available in county assessor datasets.

Did You Know?

Several retail districts and industrial areas continue to operate above the Capitol City Plume site in downtown Montgomery, Alabama. Revitalization of the downtown area is a major community priority.



Figure 12. Downtown Montgomery (Alabama)

State Reuse Profile: Florida

EPA partners with the Florida Department of Environmental Protection to oversee the investigation and cleanup of Superfund sites in Florida. Florida has 57 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 258 businesses and organizations operating on 41 sites in reuse and continued use in Florida. The businesses and organizations employ over 5,400 people and contribute an estimated \$329 million in annual employment income.

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

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	31	22	100	\$337 million	2,086	\$95 million
In Continued Use	16	10	107	\$1.2 billion	1,354	\$77 million
In Reuse and in Continued Use	10	9	51	\$313 million	1,981	\$157 million
Total	57	41	258	\$1.9 billion	5,421	\$329 million

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

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

Property Values and Property Tax Revenues

EPA has collected property value data for 38 Superfund sites in reuse and continued use in Florida. These sites span 175 property parcels and 2,872 acres. They have a total property value of \$316 million. Detailed property value information is available for 37 sites. Together, the site properties have a total land value of \$142 million and a total improvement value of \$65 million. Property tax information is available for all 38 sites. Properties at these sites generate a combined \$4.6 million in property taxes.

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

Total Land Value (37 sites)	Total Improvement Value (37 sites)	Total Property Value (38 sites)	Total Annual Property Taxes (38 sites)
\$142 million	\$65 million	\$316 million	\$4.6 million

^a The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2016 to 2017.

Did You Know?

Industrial Container Services operates an industrial supply manufacturing plant on the Zellwood Ground Water Contamination site. It employs 86 people and contributes over \$5 million in annual employment income.



Figure 13. Industrial Container Services (Florida)

State Reuse Profile: Georgia

EPA partners with the Environmental Protection Division of the Georgia Department of Natural Resources to oversee the investigation and cleanup of Superfund sites in Georgia. Georgia 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 41 businesses and organizations operating on 11 sites in reuse and continued use in Georgia. The businesses and organizations employ over 940 people and contribute an estimated \$41 million in annual employment income.

Table 7. Detailed site and business information for sites in reuse and continued use in Georgia (2016)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	5	3	3	\$1 million	35	\$1 million
In Continued Use	8	7	31	\$268 million	858	\$36 million
In Reuse and in Continued Use	1	1	7	\$10 million	51	\$4 million
Total	14	11	41	\$279 million	944	\$41 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 five Superfund sites in reuse and continued use in Georgia. These sites span 11 property parcels and 1,145 acres. They have a total property value of \$29.5 million. Detailed property value information is available for all five sites. Together, the site properties have a total land value of \$2.5 million and a total improvement value of \$27 million. Property tax information is available for all five sites. Properties at these sites generate a combined \$396,000 in property taxes.

Table 8. Property value and tax information for sites in reuse and continued use in Georgia^a

Total Land Value (5 sites)	Total Improvement Value (5 sites)	Total Property Value (5 sites)	Total Annual Property Taxes (5 sites)
\$2.5 million	\$27 million	\$29.5 million	\$396,000

^a The property value and tax amounts reflect the property value year and tax data year of 2016, available in county assessor datasets.

Did You Know?

The Cooper Tire & Rubber Company continues to operate at the Firestone Tire & Rubber Co. (Albany Plant) site. The company makes nearly \$108 million in annual sales.



Figure 14. Cooper Tire & Rubber Company (Georgia)

State Reuse Profile: Kentucky

EPA partners with the Kentucky Department for Environmental Protection to oversee the investigation and cleanup of Superfund sites in Kentucky. Kentucky 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 six businesses and organizations operating on three sites in reuse and continued use in Kentucky. The businesses and organizations employ 926 people and contribute an estimated \$60 million in annual employment income.

Table 9. Detailed site and business information for sites in reuse and continued use in Kentucky (2016)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	2	0	0	\$0	0	\$0
In Continued Use	4	3	6	\$236 million	926	\$60 million
In Reuse and in Continued Use	0	0	0	\$0	0	\$0
Total	6	3	6	\$236 million	926	\$60 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

Property value and tax data were not available for sites in reuse in Kentucky.

Did You Know?

Three companies operate chemicals and plastics manufacturing companies on the B.F. Goodrich site in Calvert City, Kentucky. The companies contribute an estimated \$13 million in annual employment income.



Figure 15. Chemical manufacturing facility

State Reuse Profile: Mississippi

EPA partners with the Mississippi Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Mississippi. Mississippi has two Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for five businesses and organizations operating on two sites in reuse and continued use in Mississippi. The businesses and organizations employ 26 people and contribute an estimated \$1 million in annual employment income.

Table 10. Detailed site and business information for sites in reuse and continued use in Mississippi (2016)

	Sites	Sites with Businesses	Businesses ^a	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	1	1	2	\$0	2	\$0
In Continued Use	0	0	0	\$0	0	\$0
In Reuse and in Continued Use	1	1	3	\$10 million	24	\$1 million
Total	2	2	5	\$10 million	26	\$1 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

EPA has collected property value data for one Superfund site in reuse and continued use in Mississippi. This site spans five property parcels and 50 acres. It has a total property value of \$1.6 million. The site parcels have a total land value of \$348,000 and a total improvement value of \$1.2 million. Properties at this site generate a combined \$27,000 in property taxes.

Table 11. Property value and tax information for sites in reuse and continued use in Mississippi^a

Total Land Value (1 site)	Total Improvement Value (1 site)	Total Property Value (1 site)	Total Annual Property Taxes (1 site)
\$348,000	\$1.2 million	\$1.6 million	\$27,000

^a The property value and tax amounts reflect the property value year and tax data year of 2016, available in county assessor datasets.

Did You Know?

The Davis Timber Company site in southern Mississippi is now home to the Hub City Humane Society animal shelter.



Figure 16. Dogs at the animal shelter (Mississippi)

State Reuse Profile: North Carolina

EPA partners with the North Carolina Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in North Carolina. North Carolina has 18 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 30 businesses and organizations operating on 12 sites in reuse and continued use in North Carolina. The businesses and organizations employ nearly 1,500 people and contribute an estimated \$80 million in annual employment income.

Table 12. Detailed site and business information for sites in reuse and continued use in North Carolina (2016)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	6	5	13	\$49 million	366	\$10 million
In Continued Use	8	3	8	\$116 million	299	\$17 million
In Reuse and in Continued Use	4	4	9	\$238 million	808	\$53 million
Total	18	12	30	\$403 million	1,473	\$80 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 eight Superfund sites in reuse and continued use in North Carolina. These sites span 113 property parcels and 1,651 acres. They have a total property value of \$69 million. Detailed property value information is available for all eight sites. Together, the site properties have a total land value of \$27 million and a total improvement value of \$42 million. Property tax information is available for all eight sites. Properties at these sites generate a combined \$600,000 in property taxes.

Table 13. Property value and tax information for sites in reuse and continued use in North Carolina^a

Total Land Value (8 sites)	Total Improvement Value (8 sites)	Total Property Value (8 sites)	Total Annual Property Taxes (8 sites)
\$27 million	\$42 million	\$69 million	\$600,000

^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 2016 to 2017.

Did You Know?

GE Lighting Systems, Inc, a division of General Electric, has continued to operate a facility throughout the cleanup process at the General Electric Co./Shepherd Farm site. The business employs 700 people and contributes nearly \$47 million in annual employee income.



Figure 17. A lightbulb

State Reuse Profile: South Carolina

EPA partners with the South Carolina Department of Health and Environmental Control to oversee the investigation and cleanup of Superfund sites in South Carolina. South Carolina has 18 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. EPA has collected economic data for 83 businesses and organizations operating on 12 sites in reuse and continued use in South Carolina. The businesses and organizations employ nearly 800 people and contribute an estimated \$33 million in annual employment income.

Table 14. Detailed site and business information for sites in reuse and continued use in South Carolina (2016)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	8	4	9	\$28 million	75	\$3 million
In Continued Use	6	4	5	\$95 million	136	\$7 million
In Reuse and in Continued Use	4	4	69	\$104 million	576	\$23 million
Total	18	12	83	\$227 million	787	\$33 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 eight Superfund sites in reuse and continued use in South Carolina. These sites span 45 property parcels and 551 acres. They have a total property value of \$104 million. Detailed property value information is available for seven sites. Together, the site properties have a total land value of \$64 million and a total improvement value of \$38 million. Property tax information is available for seven sites. Properties at these sites generate a combined \$2 million in property taxes.

Table 15. Property value and tax information for sites in reuse and continued use in South Carolina^a

Total Land Value (7 sites)	Total Improvement Value (7 sites)	Total Property Value (8 sites)	Total Annual Property Taxes (8 sites)
\$64 million	\$38 million	\$104 million	\$2 million

^a The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2016 to 2017.

Did You Know?

An industrial park was built on the Macalloy Corporation site in North Charleston. Together, the businesses in the park generate over \$22 million in annual sales.



Figure 18. A paper stock recycling business in the industrial park (South Carolina)

State Reuse Profile: Tennessee

EPA partners with the Tennessee Department of Environment & Conservation to oversee the investigation and cleanup of Superfund sites in Tennessee. Tennessee 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 65 businesses and organizations operating on four sites in reuse and continued use in Tennessee. The businesses and organizations employ nearly 4,500 people and contribute an estimated \$240 million in annual employment income.

Table 16. Detailed site and business information for sites in reuse and continued use in Tennessee (2016)

	Sites ^a	Sites with Businesses	Businesses ^b	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	8	1	1	\$0	2	\$0
In Continued Use	3	3	64	\$346 million	4,475	\$240 million
In Reuse and in Continued Use	3	0	0	\$0	0	\$0
Total	14	4	65	\$346 million	4,477	\$240 million

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

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

Property Values and Property Tax Revenues

EPA has collected property value data for four Superfund sites in reuse and continued use in Tennessee. These sites span 13 property parcels and 186 acres. They have a total property value of \$33 million. Detailed property value information is available for all four sites. Together, the site properties have a total land value of \$5 million and a total improvement value of \$28 million. Property tax information is available for all four sites. Properties at these sites generate a combined \$535,000 in property taxes.

Table 17. Property value and tax information for sites in reuse and continued use in Tennessee^a

Total Land Value (4 sites)	Total Improvement Value (4 sites)	Total Property Value (4 sites)	Total Annual Property Taxes (4 sites)
\$5 million	\$28 million	\$33 million	\$535,000

^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 2014 to 2016.

Did You Know?

The Carrier Corporation continues to operate on the Carrier Air Conditioning Co. site. The business employs about 3,400 people and contributes over \$181 million in annual employee income. Carrier Corporation makes about \$100 million in annual sales at this location.



Figure 19. Entrance to the Carrier Corporation (Tennessee)

Reuse on the Horizon in Region 4

Transformation from Industrial Area to Regional Tourism Hub

In Charleston, South Carolina, cleanup and redevelopment of the 18-acre Calhoun Park Area site is strengthening regional tourism and bolstering Charleston's economy. The site had been a major industrial area for wood treating and gas manufacturing operations since the early 1800s. The U.S. Navy also built small boats at the site during World Wars I and II. In 1991, EPA and the South Carolina Department of Health and Environmental Control identified contaminated soil, sediment and groundwater on site.

EPA and the South Carolina Department of Health and Environmental Control worked with responsible parties to develop cleanup approaches that would not disrupt existing businesses, allowing the city of Charleston and other interested developers to consider reuse options throughout the cleanup process. The South Carolina Aquarium expressed interest in building a new, state-of-the-art aquarium and coordinated with EPA to ensure construction would not disrupt cleanup activities. The 69,000-square-foot aquarium opened in 2000; it attracts over a million visitors each year.

Boat and ferry service companies on site provide access to historic Fort Sumter and the vibrant ecology of the Charleston Peninsula. Businesses on site include a fitness club, law offices, a landscaping company and an insurance company. In 2012, EPA Region 4 selected the site for its Excellence in Site Reuse Award, recognizing these innovative reuses that help sustain the region's economy and provide much-needed community amenities.

Redevelopment of the site has continued, including the opening of Gadsdenboro Park in 2015 – a 5-acre park with soccer fields, walking paths, playgrounds and a fountain. An 1,100-space city parking garage also operates at the site, providing parking for residents and tourists. Plans are underway to break ground in 2017 for the new International African American Museum, located at the shore line next to the Charleston Maritime Center. The museum is expected to open in 2019.



Figure 20. Aerial view of the Calhoun Park site (South Carolina)



Figure 21. A view over Liberty Square and the South Carolina Aquarium on the Calhoun Park site (South Carolina)

Conclusion

EPA works closely with its partners at Superfund sites across the Southeast 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 123 NPL sites and 16 non-NPL Superfund sites in Region 4 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 4, including at least one site in each of the eight Region 4 states. EPA remains committed to working with all stakeholders to support Superfund redevelopment opportunities in Region 4.

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 Southeast region, Superfund sites are now home to commercial and industrial developments, mid-sized developments providing services to surrounding communities, and diverse small businesses. EPA is committed to working with all stakeholders to support the restoration and renewal of these sites as long-term assets.



Figure 22. View from residences on the Munisport Landfill site (Florida)

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 4 Superfund Redevelopment Initiative Coordinator
Bill Denman | 404-562-8939 | denman.bill@epa.gov

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

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

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) (dnb.com) 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 (manta.com) database. The Reference USA (resource.referenceusa.com) 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 2014 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 Superfund Redevelopment Initiative case studies as well as other resources. Links to EPA's Superfund Redevelopment Initiative case studies and other resources are included below.

Superfund Redevelopment Initiative Case Studies

Airco Plating Company. 2016. Reuse and the Benefit to Community: Airco Plating Co. Superfund Site. Accessed at: semspub.epa.gov/src/document/11/196756.pdf

Benfield Industries, Inc. 2012. Reuse and the Benefit to Community: Benfield Industries, Inc. Superfund Site. Accessed at: semspub.epa.gov/src/document/04/11121284.pdf

BMI-Textron and Trans Circuits, Inc. 2014. Reuse and the Benefit to Community: BMI-Textron and Trans Circuits, Inc. Sites. Accessed at: semspub.epa.gov/src/document/04/11121285.pdf

Calhoun Park Area. 2014. Reuse and the Benefit to Community: Calhoun Park Area Superfund Site. Accessed at: semspub.epa.gov/src/document/04/11121287.pdf

Davie Landfill. 2014. Reuse and the Benefit to Community: Davie Landfill Superfund Site. Accessed at: semspub.epa.gov/src/document/04/11121288.pdf

Davis Timber Company. 2016. Finding a Good Home: Community Benefits for People and Pets. Accessed at: semspub.epa.gov/src/document/04/11053844.pdf

Lexington County Landfill. 2014. Reuse and the Benefit to Community: Lexington County Landfill Superfund Site. Accessed at: semspub.epa.gov/src/document/04/11121289.pdf

Macalloy Corporation. 2012. Reuse and the Benefit to Community: Macalloy Corporation Superfund Site. Accessed at: semspub.epa.gov/src/document/04/11121290.pdf

Solitron Microwave. 2012. Reuse and the Benefit to Community: Solitron Microwave Superfund Site. Accessed at: semspub.epa.gov/src/document/04/11121291.pdf

Other Resources

International African American Museum website. Accessed at: iaamuseum.org/



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