

Introduction

The Blackburn & Union Privileges Superfund site in Walpole, Massachusetts, was home to industrial uses for more than two centuries. Mills and factories produced iron, nails, cotton, asbestos brake lining and fabrics. These operations resulted in contamination of soil, sediment, groundwater and surface water. A successful cleanup was achieved thanks to the Superfund remedial cleanup program, an EPA redevelopment pilot grant and collaboration between the state, town of Walpole, community residents and the site’s potentially responsible parties. The site now supports continued use and reuse. Once an eyesore to the surrounding suburban community, the site has been transformed into the Walpole Co-operative Bank South Street Senior Center, Walpole police station and a community recreational rail trail.

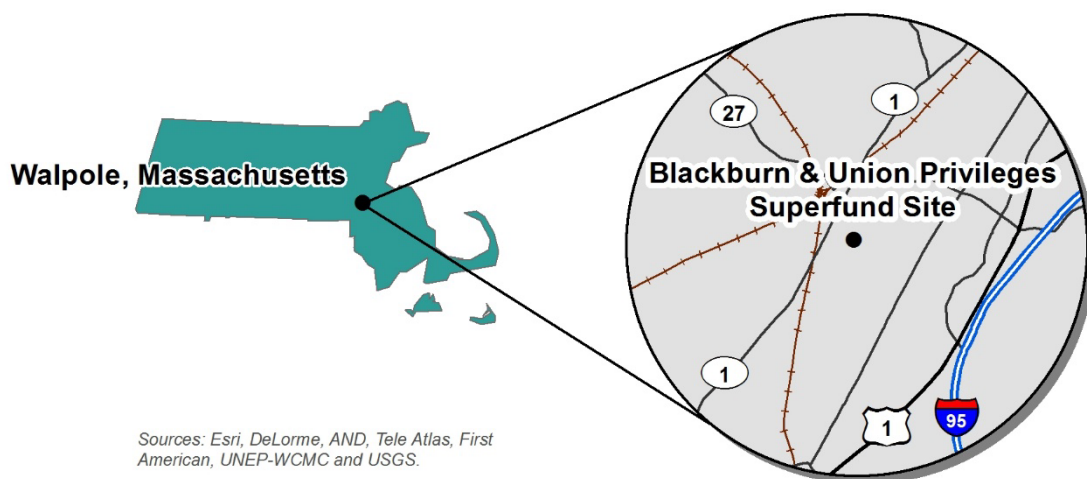
Superfund site restoration and reuse can revitalize local economies with jobs, new businesses, tax revenues and local spending. Cleanup may also take place while land uses remain active on site. This case study explores the site’s cleanup, continued use and reuse, illustrating the beneficial effects of Superfund redevelopment.

Beneficial Effects

Site businesses employ about 55 people, providing an estimated annual employment income of over \$4.7 million and generating \$157,000 in annual sales revenues.

Site properties are currently valued at over \$9 million and generate about \$22,000 in annual property tax revenues.

Incorporation of remedial design components into the construction of a new on-site building enabled the safe redevelopment of the property and protects indoor air quality.



Sources: Esri, DeLorme, AND, Tele Atlas, First American, UNEP-WCMC and USGS.

Figure 1. The Blackburn & Union Privileges Superfund site is located in Walpole, Massachusetts.

Site History

The 22-acre Blackburn & Union Privileges Superfund site is located about a half-mile south-southeast of central Walpole. The site includes 19 property parcels – mostly residential areas and some commercial uses. The earliest industrial development in Walpole took place on site with the establishment of The Blackburn Privilege in 1811 and The Union Factory Privilege in 1812. Collectively, the facilities are known as the Blackburn & Union Privilege. The privilege was one of 10 such water privileges along the Neponset River where snuff, iron, nails, cotton and wool were produced in the 17th century.

Between 1891 and 1915, facilities made tires, rubber goods and insulating materials on site. The Standard Woven Fabric Company operated on site from 1915 to 1937, crushing raw asbestos to make asbestos brake linings. Kendall Company (now Medtronic, Inc.) purchased the Standard Woven Fabric Company in 1937 and used the area for textile production. The company continued to produce textiles until the mid-1980s, when it sold its land to investment companies owned by the Shaffer family. This history of industrial and commercial use as well as waste disposal left the site's soil and groundwater heavily contaminated with asbestos, lead, arsenic and nickel as well as volatile and semi-volatile organic compounds. In 1988, EPA issued an order requiring site owners Shaffer Realty Corporation and BIM Investment Trust (collectively known as the Shaffers) to conduct a removal action at the site. Removal actions were contracted to chemical company W.R. Grace. The effort included a site assessment to evaluate the distribution of asbestos contamination and to locate other known or suspected source contamination areas. The site assessment found elevated concentrations of asbestos, lead, arsenic, nickel and other inorganic elements as well as volatile and non-volatile organic compounds in site soils, sediments, groundwater and surface water. EPA placed the site on the Superfund program's National Priorities List (NPL) in May 1994.

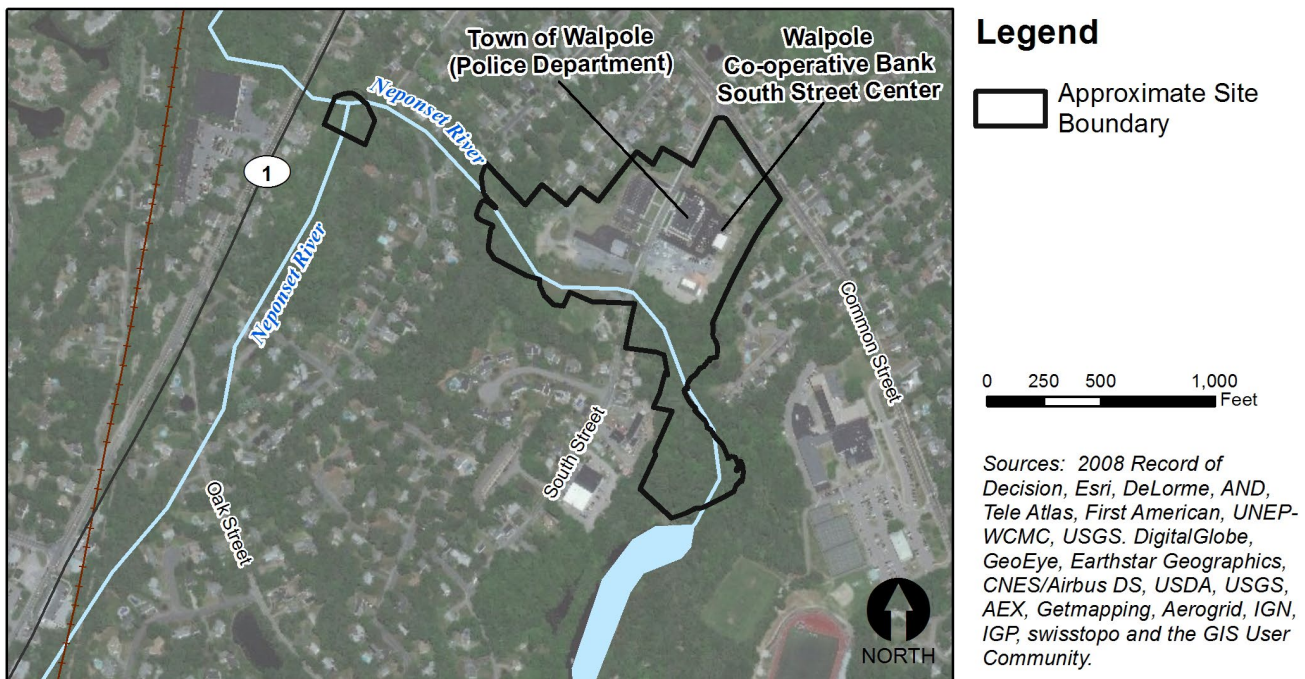


Figure 2. The Neponset River, an industrial resource for more than two centuries, crosses the site.

Site Cleanup and Transformation

EPA worked with past and current potentially responsible parties – Medtronic, Inc., WR Grace & Co. and the Shaffers – on the site’s remedial investigation and feasibility study (RI/FS). EPA also worked closely with community members. Public outreach included regular information meetings, public hearings and flyers. In 2001, EPA also awarded the town a \$100,000 Superfund Redevelopment pilot grant. The town identified industrial, commercial, recreational and municipal reuse opportunities for the site in its 2004 redevelopment plan.

EPA selected and documented the site remedy in the 2008 Record of Decision. Cleanup started in 2011. The remedy included excavation, dredging and off-site disposal of contaminated soil and sediment, and the extraction, treatment and discharge of contaminated groundwater. Institutional controls will include environmental restrictions and easements and the establishment of soil management practices for areas where waste was left in place.

Most of the site is zoned for residential uses. Part of the site is located in the town’s limited manufacturing zoning district. In addition to industrial and commercial uses, libraries, schools and daycare facilities are permitted in the district. Residential uses are not permitted in the district. The following section explores the beneficial effects of the land uses in the limited manufacturing zoning district in greater detail.



Figure 3. Cleanup included removal of asbestos contamination along the Neponset River.



Figure 4. Installation of the Neponset River culvert prevents water from coming into contact with non-hazardous contamination in soil.



Figure 5. Cap installation following soil excavation.

Beneficial Effects

Two major recent development projects at the site have provided new economic opportunities as well as public services for the community, transforming the properties from blight to a suburban jewel.

Walpole Co-operative Bank South Street Senior Center

The long-anticipated and much-celebrated Walpole Co-operative Bank South Street Senior Center is the result of community engagement, local government and business collaboration, and volunteer labor. Prior to the senior center's opening in January 2019, Walpole's only resource for seniors was a cafeteria at the town hall. The town chose to develop the facility to provide health, social and recreation services for the community's seniors. The 13,000-square-foot center provides health, education and social services and includes a library and game area. In addition, a community rail trail was established immediately behind the Senior Center and provides access to outdoor recreational activities.

Funding for the project came from the town, Walpole Co-operative Bank and a group of volunteers who sought donations from the community. The volunteers raised \$1.4 million from 1,300 donors. During the center's ribbon-cutting ceremony, EPA recognized the town of Walpole and other stakeholders with an Excellence in Site Reuse Certification for its exceptional leadership in transforming a former industrial property into an important place for the community of Walpole, Massachusetts.

Town of Walpole Police Department

Walpole's new police department building opened on site in May 2018. The department had operated in several locations over the years, including town hall, with each facility having to be retrofitted to meet police requirements. The police department building at the site provides up-to-date safety equipment and emergency response technology as well as space for seminars and training sessions. It also has an evidence room, a processing area, and a dispatch area that supports police and fire dispatch services.



Figure 6. Demolition of dilapidated buildings before cleanup.



Figure 7. The entrance to the Walpole Co-operative Bank South Street Senior Center.

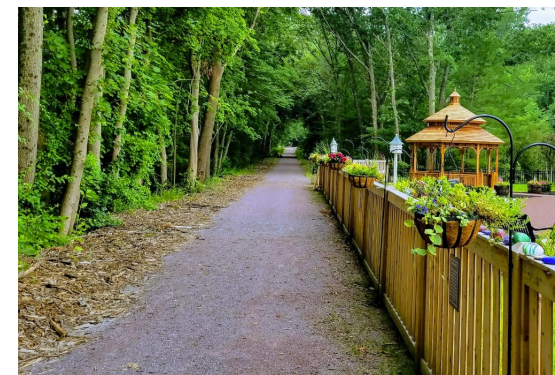


Figure 8. New rail trail provides community recreation.



Figure 9. View of the front of the Walpole Police Department building on site.

Property Values and Tax Revenues

On-site properties help generate property tax revenues that support local government and public services. Today, site properties have a combined value of over \$9 million. In 2019, site properties generated over \$22,000 in total property tax revenues. On-site businesses also generate tax revenues through the collection of sales taxes, which support state and local governments.¹

Conclusion

Collaboration and cooperation among EPA, private businesses, the state, the town of Walpole and area residents have resulted in a successful cleanup that enabled continued site use as well as redevelopment. Consultation and coordination with the community led to a thorough remedial action that minimized local impacts, enabling families to remain in their homes. EPA supported the site's continued use and redevelopment by communicating regularly with site stakeholders and awarding the town of Walpole a 2001 Superfund Redevelopment pilot grant. The resources helped the town explore a range of potential reuses for the site and address community priorities. The site's new uses – the senior center and police station – address longstanding community needs. Sustained collaboration among the site's potentially responsible parties, the town of Walpole and community residents helped make these reuses possible, illustrating how Superfund site restoration and reuse can protect public health and the environment, support vital public services, and help strengthen local economies and quality of life.

*For more information about EPA's Superfund Redevelopment Initiative, visit:
<https://www.epa.gov/superfund-redevelopment-initiative>.*

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¹ The Massachusetts sales tax rate is 6.25 percent. There are no state or county sales taxes in Norfolk County. For more information, see <http://www.mass.gov/dor/all-taxes/sales-and-use>.



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Reuse and the Benefit to Community A Beneficial Effects Economic Case Study for the Blackburn & Union Privileges Superfund Site



Technical Appendix

Employment Information for On-Site Jobs

EPA obtained the data in this appendix directly from reputable sources and reported the data as presented by those sources. Information on the number of employees and sales volume for on-site businesses came from the Hoovers/Dun & Bradstreet ([D&B](#)) database.¹ EPA also gathered information on businesses and corporations from D&B. D&B maintains a database of 300 million businesses worldwide.

This database includes data reported by businesses. Accordingly, some reported values might be underestimates or overestimates. 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.

Wage and Income Information for On-Site Jobs

EPA obtained wage and income information from the U.S. Bureau of Labor Statistics (BLS). Part of the U.S. Department of Labor, the BLS is the principal federal agency responsible for measuring labor market activity, working conditions and price changes in the economy. All BLS data meet high standards of accuracy, statistical quality and impartiality.

EPA used the BLS Quarterly Census of Employment and Wages database to obtain average weekly wage data for businesses at the Blackburn & Union Privileges Superfund site. Average weekly wage data were identified by matching the North American Industry Classification System (NAICS) codes for each type of business with weekly wage data for corresponding businesses in Norfolk County. If weekly wage data were not available at the county level, EPA sought wage data by state or national level, respectively. In cases where wage data were not available for the six-digit NAICS code, EPA used higher-level (less-detailed) NAICS codes to obtain the wage data.

To determine the annual wages (mean annual) earned from jobs generated by each of the selected businesses at the Blackburn & Union Privileges Superfund site, EPA multiplied the average weekly wage figure by the number of weeks in a year (52) and by the number of jobs (employees) for each business.

¹ <http://www.dnb.com>.

Table 1. Blackburn & Union Privileges Superfund Site: Information for On-Site Organizations and Businesses

On-Site Business	NAICS Code ^a	NAICS Title	Number of Employees ^a	Average Weekly Wage (2018) ^b	Annual Wage (Mean Annual) per Employee	Total Annual Employee Income ^c	Annual Sales (2019) ^a
Town of Walpole (Police Department)	922120	Police Protection	50	\$1,777	\$92,404	\$4,620,200	N/A
Walpole Co-operative Bank South Street Senior Center	624120	Services for the Elderly and Persons with Disabilities	5	\$422	\$21,944	\$109,720	\$157,000
Total			55			\$4,729,920	\$157,000

^a Data are from the D&B database.

^b Average weekly wage per employee based on BLS 2018 Average Weekly Wage data.

^c Total annual employee income figures derived by multiplying “Number of Employees” by “Annual Wage (Mean Annual) per Employee.”

Property Values and Local Tax Revenue Generated from Property Taxes

EPA obtained data on the most recently assessed values for property parcels at the Blackburn & Union Privileges Superfund site in June 2019 through property records accessible through the town of Walpole’s online property appraisal database.² EPA also obtained 2019 property tax information for the site parcels.

Table 2. Property Value and Tax Summary for Taxes Payable in 2019

Parcel ID No.	Total Assessed Value of Land and Improvements (2019)	Total Property Tax (2019) ^a
33-121	\$3,400	\$0.00
33-122	\$563,100	\$8,502.81
33-123	\$238,400	\$0.00
33-124	\$373,000	\$5,632.30
33-125	\$300,000	\$4,530.00
33-127	\$6,806,600	\$0.00
33-128	\$9,600	\$0.00
33-129	\$2,300	\$0.00
33-130	\$102,500	\$0.00

² <http://gis.vgsi.com/walpolema/Search.aspx>.

Parcel ID No.	Total Assessed Value of Land and Improvements (2019)	Total Property Tax (2019) ^a
33-137	\$26,300	\$0.00
33-138	\$4,500	\$0.00
33-165-14	\$1,000	\$15.10
33-172	\$8,800	\$132.88
33-173	\$11,900	\$179.69
33-174	\$589,600	\$0.00
33-208	\$170,400	\$2,573.04
33-209	\$11,100	\$167.61
33-259	\$36,500	\$551.15
River	NA	NA
	\$9,259,000	\$22,284.58

^aThe town of Walpole does not publish exact property tax values. Estimated 2019 property tax values were calculated by multiplying the publicly available town of Walpole millage rate by the total value of each individual site parcel. Based on property parcel classification, the tax calculations used the 2019 residential millage rate of \$15.01 per \$1,000 dollars assessed. Parcels owned by the town of Walpole were assumed to have a \$0 tax value.