

Executive Summary

Following a 1982 fire at the Benfield Industries chemical plant and EPA’s listing of the facility on the Superfund program’s National Priorities List (NPL) in 1989, the property appeared to offer little value to the surrounding Hazelwood community in Waynesville, North Carolina. Today, however, through collaborative community efforts with EPA, the site has been cleaned up and is now home to a non-profit medical manufacturing facility, a vocational training center and green space. This case study documents the site’s cleanup and reuse, focusing on the significant local impacts – jobs, increased property values, increased tax revenues and economic growth – that are making a lasting difference in the community.

Introduction

Superfund site clean-up results in restored value to site properties and the surrounding community. Making a property ready for reuse can revitalize a local economy with jobs, new businesses, tax revenues and local spending, as well as enhance recreational and ecological opportunities. This case study captures the economic impacts of Superfund site reuse in Waynesville, North Carolina. The small town, located in Haywood County in western North Carolina, is home to 9,869 residents.



Figure 1: Aerial view of the site. The training center is on the right and the manufacturing facility is on the left. (Source: EPA)

Positive Impacts

- Cleanup and redevelopment of the Benfield Industries, Inc. Superfund site has transformed a formerly contaminated area into a multi-use property addressing multiple community needs.
- The Haywood Vocational Opportunities (HVO) company was able to increase sales revenues of medical drapes and devices by 33 percent through its expansion at the site.
- HVO’s facilities employed 490 people in 2011. To date, the company has trained more than 1,440 people at the facility.
- HVO reports paying \$12.5 million in wages to employees during fiscal year 2011.
- The property is currently valued at \$3.4 million.

Within Waynesville, the site is located in the community of Hazelwood, on the west side of the town. Haywood Vocational Opportunities (HVO) acquired a 6-acre parcel of land for its expansion; the site occupied a 3.5-acre portion of this parcel. Homes and commercial and industrial businesses surround HVO's manufacturing facility and training center.



Figure 2: Regional site location map

Site History

The site is located in a part of Waynesville with a long industrial history. Previous site uses included two furniture manufacturing companies, which operated from 1904 to 1961. A lumber treatment facility operated at the site from the 1940s until the mid-1970s. In 1976, Benfield Industries, Inc. began its operations. The company mixed and packaged bulk organic and inorganic chemicals, using on-site buildings and aboveground storage tanks for chemical storage. Benfield Industries, Inc. handled and stored materials such as paint thinners, solvents, sealants, cleaners, de-icing solutions and wood preservatives.¹ In 1982, a fire destroyed the plant. EPA ordered the company to remove all remaining chemicals and debris.

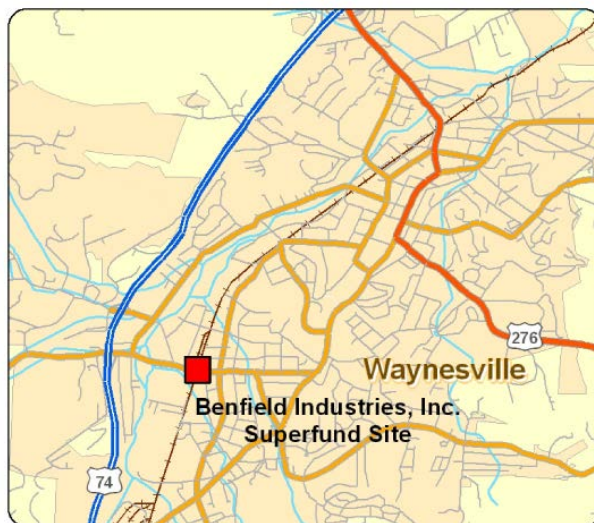


Figure 3: Local site map

During an inspection in 1985, the North Carolina Division of Health Services detected high concentrations of polycyclic aromatic hydrocarbons (PAHs) in soil and ground water at the site. EPA proposed the site for NPL listing in June 1988 and listed the site on the NPL in October 1989.² The contaminated media included soil and ground water, and the primary contaminants of concern included volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), PAHs and metals.



Figure 4: A fire in 1982 destroyed Benfield Industries' chemical plant at the site. (Source: EPA)

¹ <http://www.epi.state.nc.us/epi/oe/hace/pdf/BenfieldSummarySheet.pdf>

² For more information on the site's discovery and listing, please see: <http://www.epa.gov/superfund/sites/rods/fulltext/r0492104.pdf>.

Property Cleanup and Renewal

EPA completed in-depth studies to identify the nature and extent of site contamination in the early 1990s. The site's remedy included biological treatment of soils, extraction and treatment of on-site ground water, ground water monitoring and institutional controls. Cleanup began in fall 1997 and soil treatment ended in September 2000. The ground water treatment system began extracting ground water in September 2001. In 2008, EPA determined that the system had successfully reduced ground water contamination and recommended a transition to monitored natural attenuation.

At the time, HVO was interested in expanding its facilities. Located nearby, HVO is the largest manufacturer of custom medical drapes in the United States. The company also provides vocational training and employment opportunities to people with disabilities. The vacant site next door provided a convenient opportunity for expansion. However, HVO had safety and liability concerns about locating a new facility on a Superfund site. EPA worked closely with HVO to address the company's concerns, leading to HVO's acquisition of the site property at auction.

Building a facility on site would also require developing a design that integrated the site's remedy, ensuring the protection of human health and the environment. As HVO developed its plans, the company continued to work closely with EPA. The Agency provided information on site contamination and the cleanup approach and reviewed site reuse plans. This working relationship led to reuse plans that reflected the site's remedy in several ways, incorporating additional fill, requiring that workers digging at certain depths wear protective equipment, and navigating around existing monitoring wells.

In the end, HVO developed two-thirds of the 6-acre site property. The company built its new manufacturing and training facilities with required parking lots on 4 acres. The company designated the remaining 2 acres for green space. HVO completed the site's redevelopment in 2004.



Figure 5: Aerial view of HVO's new training facility.

HVO Investment Pays Off

- The new expansion led to a 33 percent increase in sales revenue.
- Increased revenues funded additional HVO facility expansions in 2008 and 2010.
- In 2008, HVO served a record-breaking 237 clients.
- In 2010, HVO purchased and renovated a former shoe plant nearby for additional manufacturing and training space.

Local Impacts

HVO's initial 2004 expansion resulted in approximately 90 full-time jobs and a 33 percent increase in sales revenue. In 2008, HVO added a 3,100-square-foot product development facility to the site. In 2010, HVO purchased and renovated a former shoe plant also located in Hazelwood, adding 117,000 additional square feet of space within a half-mile of the site for manufacturing, production and training.³ Following these expansions, the company currently employs 490 people, contributes over \$12.5 million in annual employment income to the community, and has increased its annual sales to approximately \$31 million. In total, HVO has more than 259,000 square feet of facility space. As of 2010, the site's estimated property value is \$3.4 million.

"The greatest benefit of this site's reuse ... an eyesore of a fenced off, overgrown property was transformed into an architecturally beautiful building and a naturally landscaped asset for the community."

- HVO President
George Marshall,
2011

There is also a compelling story behind these numbers. As a mission-driven social enterprise company, HVO seeks to provide job skills and employment opportunities to local residents, including those with disabilities. HVO works to remove employment barriers and offer a more flexible approach to work, providing employment for people who traditionally have difficulty entering the work force. HVO's new Learning and Enrichment Center helps to facilitate this part of the company's mission. HVO uses their revenue to sustain their social enterprise practices. This distinguishes them from traditional non-profits, which rely primarily on philanthropic and government support. HVO's operating budget is 96 percent from sales, 2 percent from public dollars and the remaining 2 percent are from miscellaneous monies, including grants.

In addition to employing local residents, HVO provides training that enables job seekers to build their skills and pursue employment opportunities with other companies. HVO has a strong reputation, in the local business community, for both high-quality training and skilled employees. HVO works with companies to develop tailored training for local worksites, and then provides follow-up assistance to help HVO trainees master their job responsibilities and successfully transition into the workforce. These services are provided free of charge to all employers.

Eye Sore Removal and Green Space

The cleanup and redevelopment of the Benfield Industries, Inc. Superfund site has replaced a vacant eyesore with well-designed buildings and 2 acres of green space. Employees benefit from a healthy working environment and use the green space for walks, lunchtimes and outdoor meetings. The site property borders about 600 feet of a local creek. Previously, the creek's banks were overgrown, trash-strewn and fenced off. Today, the creek has been cleaned up, its banks have been cleared, reinforced and restored, and the adjacent green space has been landscaped with vegetation, trees and a walking trail.

Haywood Vocational Opportunities, Inc. Provides Jobs and Income

- HVO employs 490 people and contributes over \$12.5 million in annual employee income to the community.
- Of the 490 HVO employees, 30 percent participated in the HVO training program and have a certified disability.
- As of 2011, 53 companies have provided employment opportunities to HVO trainees.



Conclusion

The cleanup and redevelopment of the Benfield Industries, Inc. Superfund site has provided HVO and the surrounding community with many new opportunities. Through HVO's collaborative efforts with EPA, all parties were well-informed and engaged throughout the process, leading to cleanup and reuse plans that meshed well together. Once a contaminated eyesore, the site is now home to a local business that provides much-needed jobs and training services for the broader community as well as valued green space. The entire HVO facility in 2011 employed 490 employees and has trained 1,440 trainees since the expansion. The property is now valued at \$3.4 million, and HVO reports paying \$12.5 million in wages to employees during Fiscal Year 2011. This site's compelling story illustrates how communities and EPA can work together nationwide to sustain healthy communities and advance environmental protection.



www.epa.gov

Reuse and the Benefit to Community Benfield Industries, Inc. Site

Technical Appendix

Employment Information for On-site Jobs

A November 17, 2011 interview with HVO President George Marshall provided on-site job information.

The Dun & Bradstreet (D&B) database provided sales volume and NAICS code information.¹ D&B is a company that provides information on businesses and corporations. It maintains a database of over 179 million companies globally and over 53 million professional contact names using a variety of sources, including public records, trade references, telecommunication providers, newspapers and publications, and telephone interviews (<http://www.dnb.com>).

The Data Universal Numbering System (DUNS) number is a unique nine-digit business identification number assigned by D&B to each business and its location within the D&B database.

Haywood Vocational Opportunities, Inc.

DUNS Number: 130703267

Sales Volume: \$30,973,539

Positive Impacts: Wage and Income Information for On-site Jobs

Table 1: Benfield Industries, Inc. Superfund Site: NAICS Code and Title, Employees and Total Annual Wages

On-site Business	NAICS Code ^a	NAICS Title	Employees ^b	Total Annual Wages ^c
Haywood Vocational Opportunities, Inc.	624310	Private Company	490	\$12.5 million

^a NAICS Code is from D&B database.

^b Number of employees provided by HVO President George Marshall during November 17, 2011 interview.

^c Total Annual Wages provided by HVO President George Marshall during November 17, 2011 interview.

¹ D&B updates its company reports on an annual basis. D&B data used for this analysis was collected in August 2011.

Positive Impacts: Estimated Property Values

Property records accessed through Haywood County's online property records database (<http://www.haywooddeeds.com>) provided property value and tax information for the property parcels at the Benfield Industries, Inc. Superfund site.

Table 2. Estimated HVO Property Values (2010)

Parcel ID No.	Business at Property	Estimated Property Value (2010)
8605-82-2326 172 Riverbend Street (site property)	HAYWOOD VOCATIONAL OPPORTUNITIES INC	\$3,426,100.00
8605-81-0728 150 Westwood Circle (2010 expansion – off-site property)	HAYWOOD VOCATIONAL OPPORTUNITIES INC	\$2,516,800.00