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Reuse and the Benefit to Community

Kearsarge Metallurgical Corp. Superfund Site

Executive Summary

Between 1964 and 1982, waste disposal practices at the Kearsarge Metallurgical Corp. (KMC) facility in Conway, New Hampshire, contaminated soil and groundwater with volatile organic compounds (VOCs) and metals. Cooperation among the U.S. Environmental Protection Agency (EPA), the New Hampshire Department of Environmental Services (NHDES) and the Town of Conway has led to the successful cleanup and reuse of this area, known as the Kearsarge Metallurgical Corp. Superfund site.

Today, three businesses operate at the site – a towing company, a heating business, and a farm equipment and diesel truck repair facility. The area also includes restored forested wetlands that provide ecological habitat along the northern bank of Pequawket Pond. This case study explores the area's cleanup and reuse, illustrating the opportunities and beneficial effects of Superfund redevelopment in action.

Beneficial Effects

- **Restoration of two on-site buildings provided about 12,000 square feet of usable space for redevelopment.**
- **The Town of Conway's leadership in acquiring the site and restoring site features set the stage for its successful commercial reuse.**
- **Site businesses employ about eight people, providing estimated annual employment income of nearly $327,000.**

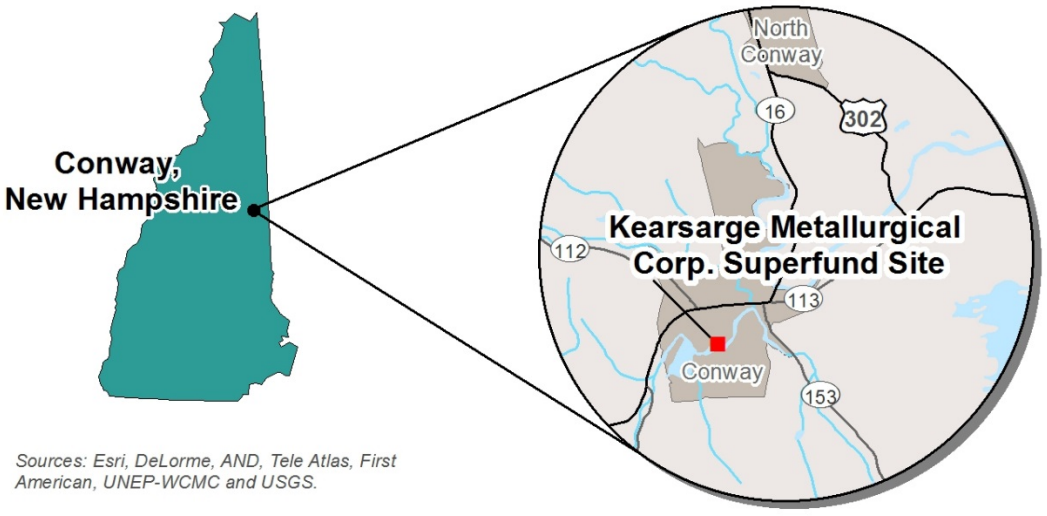

Figure 1. Location of the Kearsarge Metallurgical Corp. Superfund site in Conway, Carroll County, New Hampshire.

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Introduction

Site restoration and reuse can revitalize a local economy with jobs, new businesses, tax revenues and spending. Cleanup may also take place while there are active land uses on site. This case study captures the beneficial effects of redevelopment at the Kearsarge Metallurgical Corp. Superfund site.

The site occupies nine acres in an industrial park on the western edge of the Town of Conway in Carroll County, New Hampshire. It is located along the northern bank of Pequawket Pond and is bordered by Hobbs Street to the northwest. Two buildings are located on the western part of the site. The eastern part of the site includes a poplar forest and wetlands area. Light manufacturing businesses operate north and west of the site. According to the 2015 U.S. Census, about 9,948 people live in Conway.

Site History

Between 1964 and 1982, Kearsarge Metallurgical Corp. (KMC) manufactured stainless steel valves and other materials on site using the lost-wax casting process. This process generates waste casting sands and solvents. Throughout the 1970s, operations included the disposal of hazardous facility-related wastes in waste piles located east of the former KMC building. Facility operations also included the discharge of waste solvents into the on-site septic system and storage of wastes in rusted drums.

The New Hampshire Bureau of Hazardous Waste Management (NHBHWM) issued a Notice of Violation and Order of Abatement to KMC to conduct a hydrologic study of the site in October 1982. KMC refused to perform the study and abandoned the site in late 1982. NHBHWM and the New Hampshire Highway Department installed monitoring wells and began an investigation in December 1982. EPA and the state conducted additional investigations through the late 1980s. The investigations found that facility waste disposal practices had contaminated groundwater, soil and waste piles with VOCs and metals. EPA placed the site on the Superfund program's National Priorities List (NPL) in September 1984.

Figure 2. Soil cleanup underway, 2015.

Site Cleanup

KMC declared bankruptcy in 1984, leaving no money for the cleanup and owing the Town of Conway over $150,000 in unpaid property taxes. EPA and NHDES worked together on the site's cleanup plan. EPA selected the plan to address site contamination in a 1990 Record of Decision (ROD). Cleanup began in 1992. It included removal of 13,620 tons of waste pile materials, 42 tons of crushed drums, a solvent-contaminated septic tank and contaminated soil associated with the former septic system. In 1993, EPA built a treatment plant to address groundwater contamination. To speed up groundwater cleanup, NHDES removed 5,670 tons of solvent-contaminated soil from the impacted aquifer in 2003. The groundwater treatment system operated from 1993 to 2005. Cleanup actions between 1993 and 2005 removed more than 99 percent of groundwater contaminants.

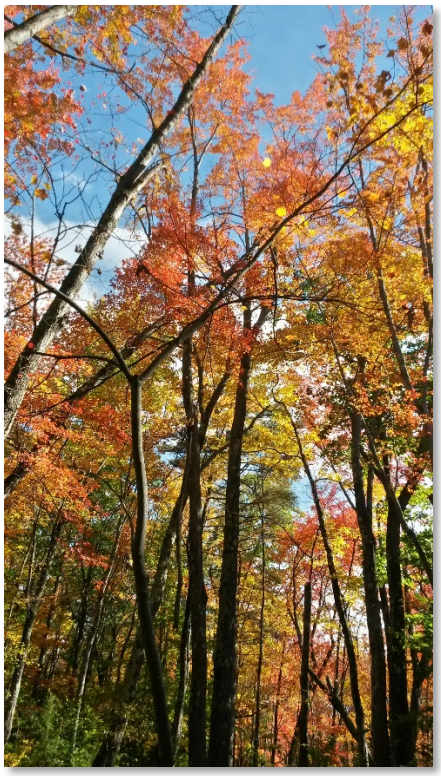

Figure 3. Forested wetland area on the eastern part of the site.

EPA updated the site's remedy in 2012. The update included monitored natural attenuation (MNA) to address remaining groundwater contamination. MNA involves allowing natural processes to break down groundwater contaminants over time, with regular monitoring to assess the effectiveness of the remedy. The updated remedy also called for institutional controls to restrict inappropriate land uses.

In 2015, EPA also treated a 10,000-square-foot area of soil, addressing a small hot spot of remaining contamination in the forested wetland area. EPA then regraded and seeded the area. The cleanup restored the wetland habitat and helps protect nearby Pequawket Pond, a local recreational amenity.

NHDES continues to monitor site groundwater.

"The Department is pleased with the progress that the Town of Conway and involved agencies have made at the Site in recent years. The transition of the groundwater cleanup from active treatment to MNA, in conjunction with in-place treatment of remaining soil contamination, provided the opportunity for the beneficial reuse of the property".

– Andrew Hoffman, NHDES Project Manager

Setting the Stage for Redevelopment

After KMC abandoned the site in 1982, the property sat idle for decades. With the contaminated property neither attracting businesses to the area or generating property taxes, the Town of Conway was eager to see the site returned to productive use. EPA and NHDES made sure to consider the site's potential future use early in the cleanup process, and completed a reuse assessment in 2004. The assessment found that the site would likely

support commercial or industrial uses in the future. For site redevelopment to happen, however, a new owner would need to acquire the property and get the ball rolling.

Town officials considered taking ownership of the site property for some time. While the area could be a prime location for new businesses, town leaders knew the property would need substantial work before it became an attractive option for prospective owners. The Town of Conway finally took ownership of the property in 2012.

Later that year, NHDES and EPA staff, working with Town Manager Earl Sires and Department of Public Works Director Paul Degliangeli, began preparing the site for reuse. The Town removed the dilapidated part of the former KMC building, leaving 6,000 square feet of space available for reuse. After EPA determined that the groundwater treatment system was no longer needed, the EPA-built, 6,000-square-foot groundwater treatment building also became available for use.

Institutional controls were needed to restrict inappropriate future land uses and activities at the site. In 2011, NHDES recorded a Notice of Activity and Use Restrictions with Carroll County's Register of Deeds. In 2013, the Town filed a revised version of the Notice. It prohibits the extraction of groundwater, any activities that could compromise the integrity of the remedy and the use of on-site soil for food production. It also prevents the residential use of any part of the site.

With these pieces in place, the stage was set for redevelopment. Town officials began marketing the site, emphasizing the availability of the two on-site buildings in good condition as well as the property's prime location. Conway is considered the "Gateway to North Conway"; North Conway is a popular ski and tourist destination. EPA staff met with prospective purchasers and their attorneys about site liability concerns during the Town's marketing efforts. In 2013, the Town sold the site property at a public sale to a new owner – JHKH Industrial Restoration LLC – recouping some back taxes and restoring the property to Carroll County's tax roll.

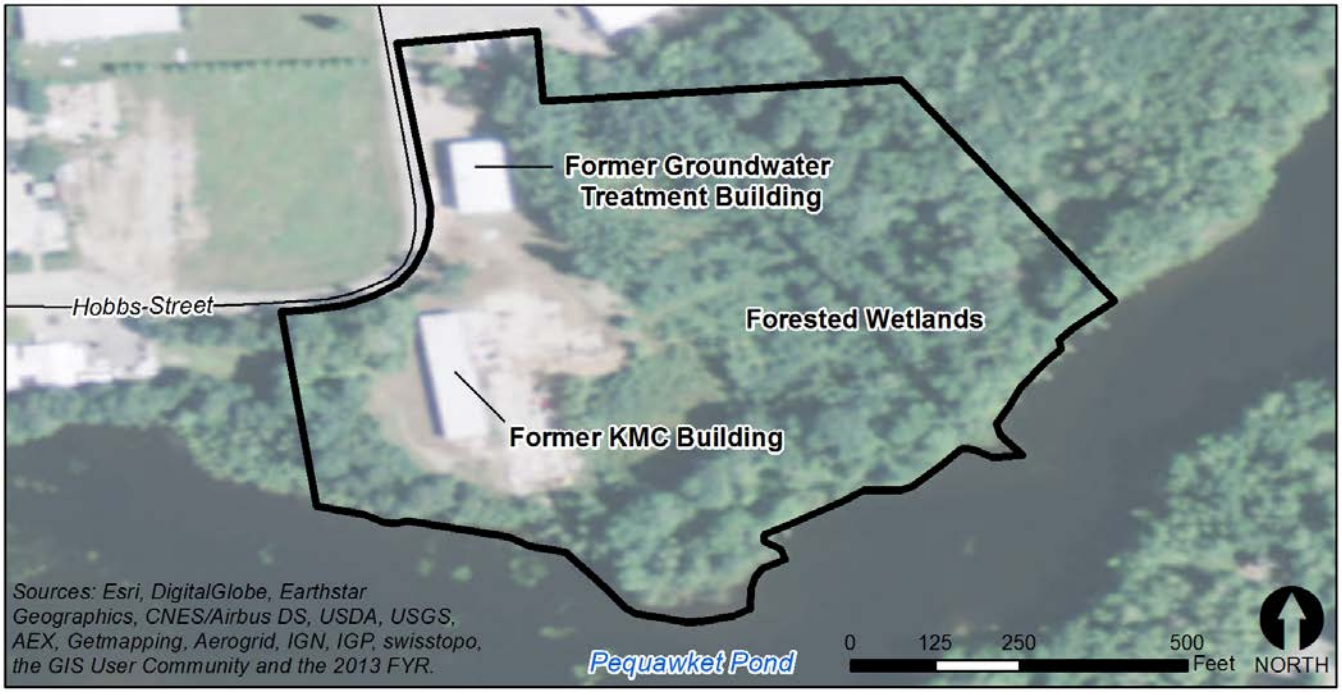

Figure 4. Site boundaries and property features.

Beneficial Effects

The cleanup of the site property protects public health and the environment and has made possible the successful redevelopment of the area. The initiative taken by the Town of Conway and the repurposing of site infrastructure helped return the once-vacant, contaminated area to beneficial reuse. In 2013, the new site owner converted the former groundwater treatment building into an automobile workshop and restored the remaining portion of the KMC building as office space. The section below highlights the beneficial effects of these new site uses in greater detail.

Hurteau Enterprises, Inc.

This company operates Hurteau Towing and Jon Hurteau Heating Services out of the restored former KMC building, located at 141 Hobbs Street. The towing and recovery business has a fleet of two ramp trucks and a wrecker. It services the Mount Washington Valley and surrounding areas. Jon Hurteau Heating Services offers heating system services. The company also provides storage services at its Hobbs Street location. Together, the two businesses employ six people and provide over $241,000 in annual employee income. In 2015, estimated annual sales for Jon Hurteau Heating Services exceeded $254,000.

Figure 5. The former KMC building, now home to Hurteau Towing and Jon Hurteau Heating Services.

Hilton's Heavy Equipment & Truck Repair, LLC

A farm equipment and diesel truck repair business now operates at the former groundwater treatment building, located at 123 Hobbs Street. Hilton's Heavy Equipment & Truck Repair, LLC also provides state vehicle inspections. The business, which moved on site in June 2014, leases the space from the property owner. It employs two people, providing employee income to the community. Estimated annual sales reached $151,000 in 2015.

Figure 6. The former groundwater treatment building.

Property Values and Tax Revenues

On-site properties help generate property tax revenues that support local government and public services. Today, the site properties have a combined value of $192,500. In 2016, the properties generated over $2,100 in total property tax revenue.

Future Site Use

Looking forward, parts of the site remain vacant; these areas could host commercial or industrial development in the future. EPA will continue to work with stakeholders to support protective reuses and continued uses, and ensure the long-term stewardship of the remedy.

Conclusion

Cleanup and redevelopment of the Kearsarge Metallurgical Corp. site has breathed new life into this once-contaminated, abandoned property. The reuse of the site illustrates the benefits of repurposing infrastructure and buildings at Superfund sites and how collaboration among EPA, state agencies and municipalities can lead to significant benefits for all parties. For example, the site's remedy protects public health and the environment, while cleanup of the site wetland provides restored ecological habitat. For the small town of Conway, the jobs provided and the property taxes generated by the new site businesses result in an important economic benefit to the community. Today, new businesses on site help support the local economy, providing about eight jobs, nearly $327,000 in estimated annual employee income and over $405,000 in estimated annual sales.

For more information about EPA's Superfund Redevelopment Initiative (SRI), visit: http://www.epa.gov/superfund-redevelopment-initiative.

Figure 7. View of Pequawket Pond.

Technical Appendix

Employment Information for On-site Jobs

EPA obtained the data included in this Technical 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. EPA also gathered information on businesses and corporations from D&B.

D&B maintains a database of over 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 Hoovers/D&B database research could not identify employment and sales volume for on-site businesses, EPA used the Manta database. In cases where Manta did not include employment and sales volume for on-site businesses, EPA used the ReferenceUSA database. These databases include data reported by businesses. Accordingly, some reported values might be underestimates or overestimates. In some instances, business and employment information came from discussions with business representatives.

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. Its mission is to collect, analyze and disseminate essential economic information to support public and private decision-making. 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 Kearsarge Metallurgical Corp. 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 Carroll 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 Kearsarge Metallurgical Corp. 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.

Table 1. Kearsarge Metallurgical Corp. Superfund Site: Information for On-Site Businesses

On-site Business	NAICS Code[a]	NAICS Title	Number of Employees[b]	Average Weekly Wage (2014)[c]	Annual Wage (Mean Annual) per Employee	Total Annual Income[d]	Annual Sales (2015)[b]
Jon Hurteau Heating Services	238220	Plumbing, Heating, and Air-Conditioning Contractors	3	$885	$46,020	$138,060	$254,240
Hurteau Towing	488410[e]	Motor Vehicle Towing	3[f]	$663	$34,476	$103,428	NA
Hilton's Heavy Equipment & Truck Repair, LLC	811310[e]	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	2[g]	$820	$42,640	$85,280	$151,000[h]
Total			**8**			**$326,768**	**$405,240**

[a] NAICS code provided in the D&B database, unless otherwise noted.
[b] Data are from the D&B database, unless otherwise noted.
[c] Average weekly wage per employee based on BLS 2014 Average Weekly Wage data.
[d] Total annual income figures derived by multiplying "Number of Employees" by "Annual Wage (Mean Annual) per Employee."
[e] NAICS code assumed, based on business type.
[f] Employee number provided by the site property owner.
[g] Employee number provided by business owner Keith Hilton during a phone interview on June 21, 2016.
[h] Estimated annual sales value obtained from the ReferenceUSA database.
NA - Not available

Property Values and Local Tax Revenue Generated from Property Taxes

EPA obtained data on the most recently assessed values for property parcels at the Kearsarge Metallurgical Corp. Superfund site in June 2016 through property records accessible through the Town of Conway's property appraisal database, available online at https://nhtaxkiosk.com/default.aspx. EPA also obtained 2016 property tax information for the site parcels.

Table 2. Property Value and Tax Summary for Taxes Payable in 2016

Parcel ID No.	Parcel Address	Total Market Value of Land and Improvements (2016)	Total Property Tax (2016)
000277-000140-000000	123 Hobbs Street	$192,000	$2,166
000277-000139-000000	Hobbs Street	$500	$6
		$192,500	**$2,172**