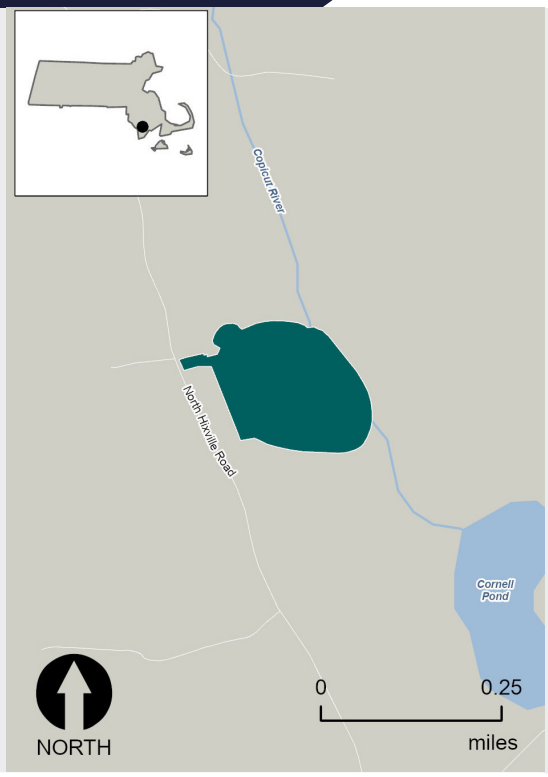
EPA United States Environmental Protection Agency

Site Redevelopment Profile

Re-Solve, Inc. Superfund Site

North Hixville Road, Dartmouth, Massachusetts 02747



Location of the site in Massachusetts.

Property Overview

Size
6 acres

Current Site Uses
- A restored wetland and pollinator habitat are located on site.
- A solar-powered groundwater treatment system is also located on site.

Use Restrictions
- Institutional controls on site prohibit well installation, building construction, soil disturbance and residential site use.

Surrounding Population

1 MILE	3 MILES	5 MILES
1,142	8,535	39,279

Site History and Redevelopment Timeline

1956-1980
Re-Solve, Inc. operated a waste chemical reclamation facility on site.

1980
The company shut down its facility.

1981
Re-Solve, Inc. removed drums and debris and demolished buildings on site.

1983
EPA placed the site on the NPL and finalized the initial remedy.

1987
EPA issued second remedy to address remaining on- and off-site contamination.

1988
A monitoring program began monitoring PCB concentrations in area fish populations.

1994
EPA and responsible parties restored wetlands on site and completed soil and sediment removal and treatment.

1998
Responsible parties installed a groundwater pumping, containment and treatment system.

2002-2009
Responsible parties ran a biofilter/ phytoremediation pilot field study.

2011
EPA and responsible parties installed anaerobic bioreactors on site. They are powered by a solar array.

1998-Present
EPA conducts Five-Year Reviews of the site's remedy to ensure it remains protective of human health and the environment.

History and Cleanup

The Re-Solve, Inc. Superfund site, a former waste chemical reclamation facility, now hosts a state-of-the-art, solar-powered groundwater treatment facility as well as restored wetlands and meadows. It is a national example of innovation in green remediation and ecological reuse at formerly contaminated lands.

The 6-acre site is located along the Copicut River in North Dartmouth, Massachusetts. Between 1956 and 1980, Re-Solve, Inc. handled and disposed of a variety of hazardous materials, including commercial solvents and waste oil. Volatile organic compounds (VOCs) and polychlorinated biphenyls (PCBs) from waste disposal efforts contaminated site soils. In 1980, the company shut down its facility. In 1981, it removed drums and debris and demolished buildings. However, the contents of four waste lagoons remained on site. In 1983, EPA placed the site on the Superfund Program's National Priorities List (NPL).

During site investigations, EPA determined soil, sediment and groundwater to be impacted by VOCs and PCBs. EPA completed excavation, treatment and backfilling of more than 36,000 cubic yards of impacted soil and sediment in 1994. In 1998, a two-tiered groundwater extraction and treatment system began operating at the site to prevent migration of contaminated groundwater off site.

Redevelopment

In 1994, EPA and responsible parties restored an acre of wetlands on site as a part of the cleanup. Responsible parties also worked closely with EPA and the U.S. Fish & Wildlife Service to convert 4 acres of the site into a native meadow for ecological reuse, placing bird boxes, brush piles and sand piles for turtles.

With immediate risks under control, EPA and responsible parties worked together on sustainable enhancements for the site's groundwater treatment system. After running a pilot study from 2002 to 2009, two anaerobic bioreactor systems were installed in 2011. These underground biological treatment beds naturally break down chemicals and greatly reduce the volume of waste generated from traditional groundwater treatment. To further enhance green remediation, an array of 644 solar panels provide all of the power needed to run the groundwater treatment system.

Since 1988, a fish monitoring program has evaluated PCB concentrations in area fish populations. The biennial Cornell Pond Fishing Derby enlists the local community in the monitoring effort and reminds the public that a Massachusetts Department of Public Health fish advisory is still in effect.

"The site is an example of how targeted investments can lead to reversing the carbon footprint of existing infrastructure ... [It is] a model for promoting sustainable practices and energy use."

Bill Keating,
Massachusetts State Congressman

These 644 solar panels provide 100 percent of the power needed to run the site's groundwater treatment system.

Contacts

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