

New Hampshire Plating Company Site Merrimack

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The New Hampshire Plating Company site is located in the town of Merrimack on Wright Avenue, off the Daniel Webster Highway. The 13.63-acre site property is in a light industrial and commercial area. The Merrimack River is located 600 feet east of the site. Horseshoe Pond lies 900 feet to the south. The site previously consisted of an electroplating operations building, a paved parking lot, a 6,000-gallon underground storage tank, and a wastewater lagoon system.

Between 1962 and 1985, large volumes of electroplating wastes were discharged into a system of four unlined lagoons. Cyanide wastes, metal plating sludge, acids, and solvents were routinely discharged to the lagoon system. The lagoon system was in what were once natural wetlands that appeared to have been altered by the disposal practices of the New Hampshire Plating Company (NHPC). The interior of the NHPC operations building was contaminated with high levels of heavy metals. NHPC operations ceased in 1985.

In 1987, the lagoon system was stabilized, contaminated debris on the site was removed, and the NHPC building was given a superficial cleaning under the supervision of the New Hampshire Department of Environmental Services (NHDES). In 1990, approximately 13,600 tons of contaminated sludge and soil at the property were stabilized on-site by the U.S. Environmental Protection Agency (EPA); 5,600 tons of contaminated sludge and soil was consolidated under an impermeable cap in a former lagoon area; and an additional 5,000 tons of soil were disposed off-site.

The site was listed on the National Priorities List (NPL) in October 1992. A Non Time-Critical Removal Action (NTCRA) was completed in late 1994. The NTCRA consisted primarily of the demolition and disposal of the building structure (including asbestos containing material) and disposal of visibly contaminated soils from beneath the building.

Based on information contained in the Remedial Investigation/Feasibility Study (RI/FS) documents, EPA and NHDES selected a Proposed Plan to clean up contaminated media at the site. EPA issued a Record-of-Decision (ROD) in October 1998 that called for in-situ chemical fixation of contaminated soil and establishment of a Groundwater Management Zone to allow for monitored natural attenuation (MNA) of contaminants in groundwater.

The restoration or creation of on-site wetlands to compensate for impacted wetlands was considered impractical due to cost and limited space. To meet the requirements of wetland mitigation, EPA and NHDES jointly agreed to purchase and preserve an ecologically rare and significant wetland in the adjacent town of Litchfield. The wetland,

known as Grassy Pond, was purchased by NHDES in May 1998 under an agreement with EPA. The purchase represented a unique opportunity to use Superfund wetlands mitigation funds to acquire a critically important wetlands area and the surrounding upland, and permanently protect it. NHDES, the town of Litchfield's Conservation Commission, and The Nature Conservancy finalized a Natural Areas Protection Agreement in December 2000.

Full-scale remedial construction activities began in the summer of 2005, which included the excavation of all remaining contaminated soils and sludge from the site, treatment of contaminated soils through chemical fixation, backfilling treated soils on-site, regrading excavated areas, and the construction of a two-foot soil cover system over the backfilled treated soils. These activities were completed in December 2006.

The site's first Five-Year Review Report was completed in December 2009. In 2012, EPA completed a vapor intrusion assessment of nearby occupied structures and determined they were not at risk from the vapor intrusion pathway. Additional investigations in bedrock were conducted in 2012 to address certain data gaps identified in the first Five-Year Review Report and assess arsenic levels in bedrock south of Horseshoe Pond.

The site's second Five-Year Review was completed in December 2014. The review identified the continued need to establish Institutional Controls (ICs) on- and off-site in order to be protective of human health and the environment as envisioned by the ROD in the long term. The EPA established on-site ICs with the recordation of Notices of Environmental Contamination in the chains of title for the two lots that make up the NHPC site property in March 2017.

The site transitioned from Long-Term Response Action (LTRA) to Operation and Maintenance (O&M) on September 28, 2017, transferring site remedial responsibilities to NHDES. EPA will continue to have Five-Year Review responsibilities.

Based on the results of periodic groundwater monitoring at the site, a high-resolution subsurface investigation was conducted in 2015 to assess the potential for a residual VOC source area. This investigation found that high levels of residual trichloroethylene (TCE) in groundwater remain and due to both physical and geochemical conditions found within the Site, MNA alone may not be sufficient to attain cleanup levels in the timeframe set forth in the ROD nor minimize migration of contaminants from the Site. Additional investigation was conducted in 2017, including vapor intrusion assessment of another nearby occupied structure, and will be incorporated into a supplemental Remedial Investigation (RI) that will support a focused Feasibility Study (FS), which will evaluate the current remedy as well as alternative cleanup options. The RI/FS is scheduled for completion in 2019 and may lead to an amended ROD in mid to late 2019.

NHDES continues to conduct periodic monitoring of volatile organic compounds, 1,4-dioxane, metals, and cyanide in the shallow overburden aquifer, deep overburden aquifer, bedrock aquifer, and surface water.