



Reuse Assessment

New Hampshire Plating Co. Superfund Site



Office of Site Remediation and Restoration
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TABLE OF CONTENTS

PURPOSE	1
SECTION 1- SITE BACKGROUND	2
General Description	2
Environmental History	6
SECTION 2 - REUSE STATUS	12
NH Plating Co. Property	12
SECTION 3 - GENERAL FINDINGS/RECOMMENDATIONS	14
Potential Reuse Issues/Considerations	14
Recommendations for Follow-up	15
APPENDIX	
Reference Documents	17

PURPOSE OF THIS DOCUMENT

EPA-New England is responsible for the cleanup of over 100 Superfund sites throughout the six New England states. Although protecting human health and the environment is the primary objective of these cleanups, EPA also recognizes the value in helping to return Superfund sites to beneficial reuse. Understanding the current and likely future uses of a site is key to achieving both of these objectives.

To establish cleanup standards and design a protective remedy, it is necessary to first determine how the site and immediate surroundings will be used. This information is then used to make reasonable assumptions about potential exposures to contaminants. For this reason, the types of site use, as well as the level of certainty regarding those uses, can have a dramatic impact on the final remedy and associated project costs.

This Reuse Assessment summarizes information about current and future land uses at the site that was readily available to the EPA case team. It is intended to be the basis for working with local communities, property owners and other stakeholders to develop a more complete and realistic understanding of site use. Where there is uncertainty regarding potential reuse options, EPA will encourage and assist local efforts to resolve that uncertainty. This collective information will help support EPA's decisions regarding appropriate response actions at the site, including the consideration of site use/reuse in the design and implementation of the cleanup.

The Preliminary Reuse Assessment is presented in three sections:

- **Section 1 - Site Background:** Describes the physical, environmental, and historical context of the site, particularly as it applies to current and potential future uses;
- **Section 2 - Reuse Status:** Summarizes the current uses and identifies some potential reuse issues and considerations associated with individual areas of the site; and
- **Section 3 - General Findings/Recommendations:** Identifies some specific actions EPA plans to take to work with stakeholders and other parties to resolve remaining questions about future site use.

SECTION 1 - SITE BACKGROUND

General Description

The New Hampshire Plating Company Superfund Site (site) includes the operations area, the former waste lagoons, an area of wetlands, and unimproved upland areas (See Figure 1 - Site Location Map). The buildings in the operations area, where the former New Hampshire Plating Company (NHPC) conducted its primary manufacturing activities, have been demolished and removed.

The site is bounded to the east by the Boston and Maine Railroad right-of-way and the Jones Chemical, Inc.; to the south by Wright Avenue; to the west by the F. & S. Transit Mix Company; and to the north by the National School Bus Service Company and the New England Pole Company. South of Wright Avenue is an undeveloped lot owned by the City of Manchester YMCA.

QUICK FACTS

Location: Wright Avenue
Merrimack, NH
(Hillsborough County)

ID Number: NH D001091453

Site Area: 13 acres

Number of Parcels: Two

Current Uses: Former industrial buildings (demolished); lagoons; wetlands; and an unimproved, wooded area

Ownership: Two owners, private

Cleanup Status: Remedial design

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The surrounding land uses include light industries, commercial businesses, and a few private residential dwellings. Most of the commercial and industrial properties are only moderately developed and widely separated from each other.

The former NHPC facility was located on two adjacent parcels. Parcel #2 (approximately 11 acres) comprises most of the site and includes the lagoon and wetland areas. This parcel currently has two owners. Parcel #3 (approximately 1.57 acres) formerly housed the NHPC building and is solely owned by one of the co-owners of Parcel #2 (See Figure 2 - Site Map).

Both parcels are located within the town's "I1 industrial" zone. The area to the west is zoned commercial and south of Wright Avenue is zoned residential. A more detailed description of the town's zoning ordinances and other potential land use restrictions can be found in the Superfund Redevelopment Plan, dated 2001, prepared for the town of Merrimack by Comprehensive Environmental, Inc. (CEI, 2001)

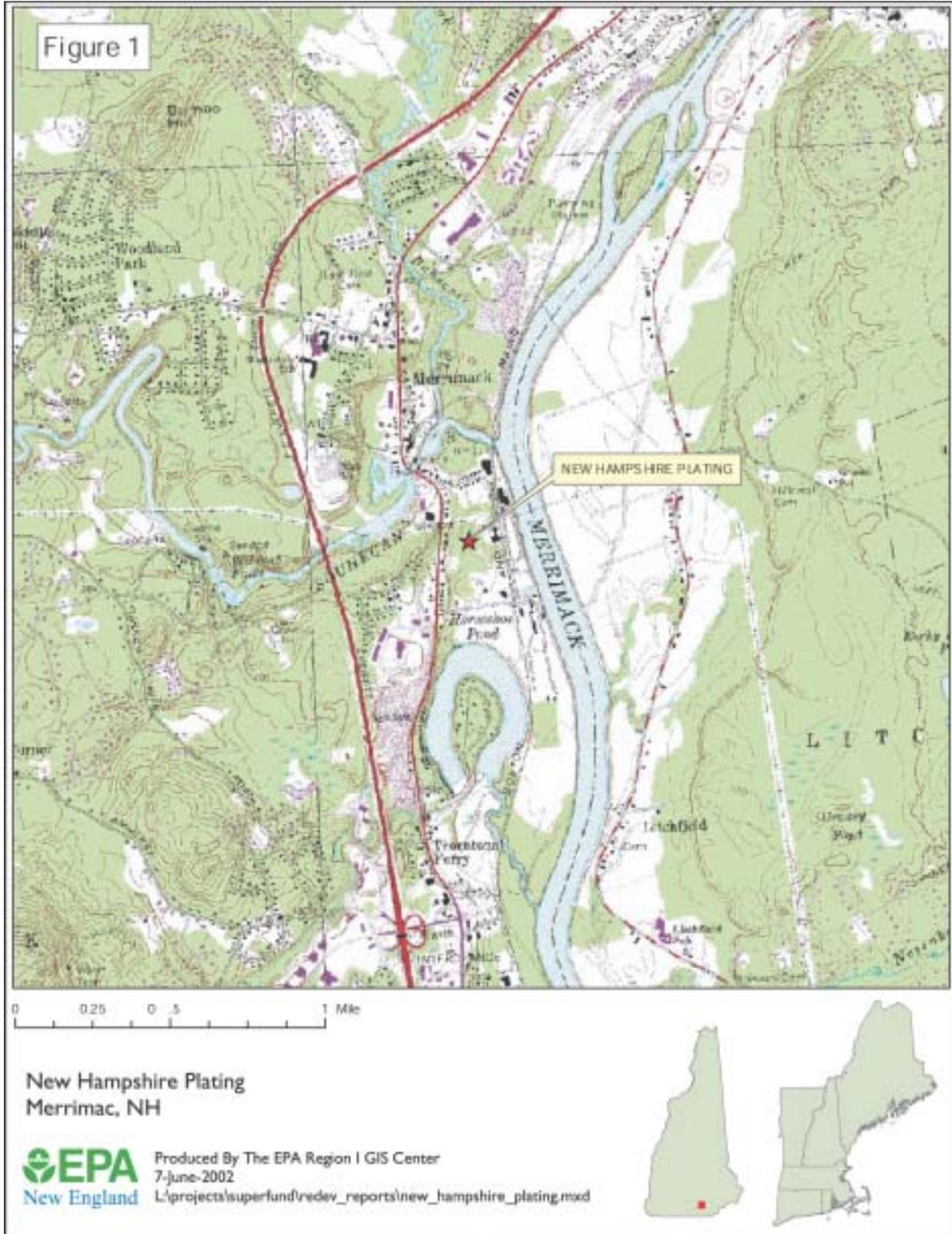
Three major surface water bodies exist in the vicinity of the site. The Merrimack River is approximately 500 feet east of the site and flows in a north to south direction. Horseshoe Pond, an oxbow lake located in a former channel of the Merrimack River, is a recreational water body approximately 600 feet south of the site. Surface water

from Horseshoe Pond flows into the Merrimack River through an outlet stream at the southeastern end of the pond. The east-flowing Souhegan River joins the Merrimack River approximately 1200 feet north of the site.

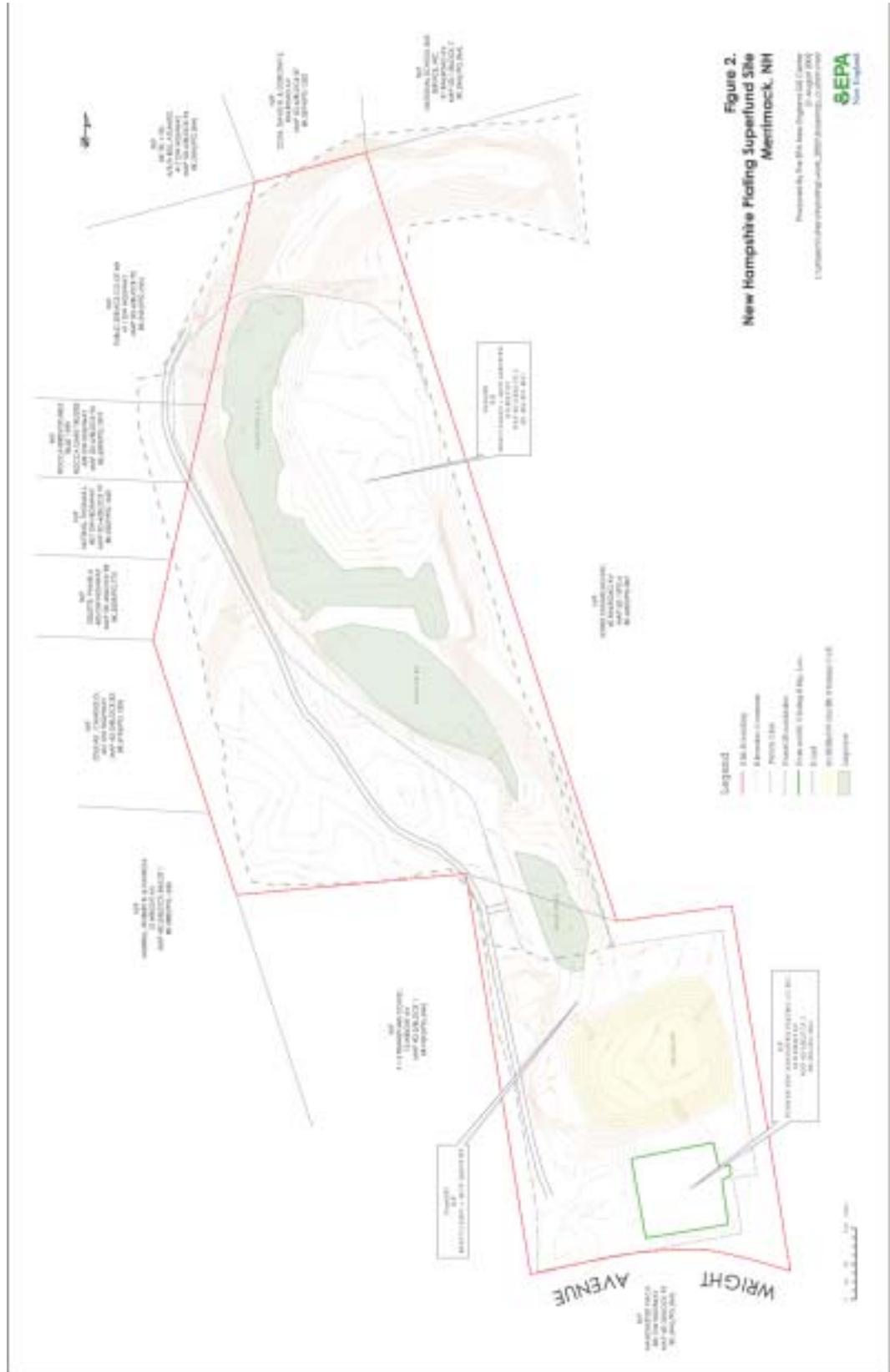
The site lies within the drainage basin of the Merrimack River and its tributaries. A majority of the site (approximately 10.3 acres) is located within the 100-year flood plain and the remainder is in the 500-year flood plain (See Figure 3 - Flood Plain Delineation Map).

Groundwater within the shallow and deep overburden aquifers predominantly flows in a southeasterly and easterly direction toward the Merrimack River. Horizontal flow within the bedrock aquifer appears to be in an easterly direction toward the Merrimack River.

► Fig. 1



► Fig. 2



The State of New Hampshire has designated the underlying aquifer as a medium to high value aquifer, making it a potential source of drinking water.

A public water supply, electrical/phone lines and a municipal sewer line are currently located along Wright Avenue, which is a two-lane public road that serves as the primary access to the site. Wright Avenue runs off the Daniel Webster Highway, a primary transportation route, that at times experiences heavy traffic volumes.

Environmental History/Status

A more complete description of the site history can be found in Section 2.0, Volume 1 of the Remedial Investigation (RI) report (Halliburton NUS, 1996). Also, a chronology of key events is provided in Table 1.

► **Past Site Activities:** NHPC operated an electroplating facility on the site from 1962 to 1985. The metals utilized in the electroplating process included cadmium, zinc, chromium, copper, lead, nickel, tin, gold, silver, aluminum, iron, and manganese. Cyanide was also used as part of the electroplating process. De-greasing operations utilized various chlorinated organic solvents such as trichloroethylene (TCE); 1,1,1-trichloroethane (TCA); and tetrachloroethylene (PCE). Chlorinated solvent use was reportedly discontinued during the latter part of the 1970s.



View of former waste lagoon

Treated and untreated wastes and wastewater were discharged through a gravity-drained underground discharge pipe into unlined waste lagoons located approximately 325 feet north of the building. These lagoons occupy about three acres of the wetlands that developed naturally in a series of meander scars formed by the Merrimack River. Wastes were discharged directly into a primary infiltration lagoon (Lagoon 1). The lagoon system was constructed to allow the discharged wastes to overflow from the primary lagoon into a secondary infiltration lagoon (Lagoon 2) and into subsequent overflow lagoons (Lagoons 3 and 4) during periods of high discharge from the

facility. Approximately 35,000 to 60,000 gallons of wastewater were generated and discharged to the lagoons each day.

In 1980, NHPC notified the EPA that it was a hazardous waste disposal facility in accordance with Section 3001 of the Resource Conservation and Recovery Act (RCRA) and continued to operate under an interim permit. As the result of inspections conducted by EPA and the New Hampshire Department of Environmental Services (NHDES) between 1982 and 1985, NHPC received several Notices of Violation/Orders of Abatement for failure to comply with RCRA transportation, storage, and disposal requirements, and for inadequate treatment of its cyanide wastewater prior to discharge. Operations at NHPC ceased in November 1985.

In June 1987, the NHDES initiated interim remedial measures at the site. Wastes including plating solutions, cyanide salts, and other materials were removed from the NHPC building. Sludge and sediment were also removed from the building floors and disposed of at an approved off-site facility. The NHDES also treated sludge and process wastewater in Lagoon 1 with approximately 127 tons of lime and 800 gallons of a sodium hypochlorite solution.

EPA initiated an emergency removal action in October of 1989. After a preliminary study in the Fall of 1990 and Spring of 1991, EPA performed a limited on-site removal

CHRONOLOGY OF KEY EVENTS

- **1962 through November, 1985:** NHPC operated the electroplating facility.
- **June, 1987:** NHDES initiated interim remedial measures at the site.
- **August 30, 1989:** EPA issued a General Notice of Responsibility and Potential Liability to Mr. Aldo Bracci and Mrs. Ida D. Bracci, NHPC, and Mr. Jack O. Labovitz.
- **October, 1989:** EPA initiated an emergency removal action.
- **Fall, 1990 through Spring, 1991:** EPA excavated, solidified and encapsulated approximately 13,600 tons of contaminated soils/sludge on-site; removed approximately 5,000 tons of soil to an off-site secure landfill; consolidated and capped approximately 5,600 tons of soil in Lagoon 1; and placed a soil cover over other excavated areas.
- **1991:** NHPC was dissolved as a corporation.
- **November through December, 1994:** EPA conducted a Non-Time-Critical Removal Action which included the decontamination and demolition of the building and the removal of demolition debris to off-site facilities.
- **May, 1996:** Draft Final Remedial Investigation Report for the New Hampshire Plating Company.
- **May 31, 1996:** EPA issued a General Notice of Responsibility and Potential Liability to Mr. Randall Bracci, son of Aldo Bracci.
- **December 30, 1996:** EPA issued a decision not to pursue recovery of past and future costs from the identified Potentially Responsible Parties.
- **September 1998:** Record of Decision (ROD) signed by EPA.
- **2001:** The Town of Merrimack developed a Site redevelopment plan through it's EPA-funded Superfund Redevelopment Initiative pilot.

action. Approximately 13,600 tons of sludges and soils were excavated, solidified on-site in an ash/mortar mixture, and encapsulated in a storage cell (the so-called “solidified material storage cell”) at a location immediately north of the former NHPC building. Currently, this solidified monolith mass remains on-site. An additional 5,000 tons of soil were disposed off-site at a secured landfill. As the last step of the removal action, approximately 5,600 cubic yards of untreated soils excavated from the overflow lagoon areas were placed in Lagoon 1. The soils were covered with an HDPE cap and approximately 2 feet of clean fill. The other excavated lagoons were covered with between one and two feet of clean fill.

EPA also conducted a Non-Time-Critical Removal Action (NTCRA) at the NHPC building site in November and December of 1994. Laboratory wastes left in the NHPC building were packed in drums and shipped off-site for disposal; asbestos-containing materials were removed; process equipment and the building were decontaminated; the building, floor slab, and foundation were demolished; an underground storage tank was removed; the exposed soils were characterized; and the building footprint was graded and covered with a geomembrane. Both non-hazardous and hazardous materials generated during the building removal were disposed of off-site.



Growth over monolith containing solidified metals sludge

Description of Operable Units: Superfund sites are often partitioned into distinct study areas called “operable units” (OUs). The boundaries of these operable units are generally based on environmental considerations (e.g., a major source area, a groundwater plume, etc.) and do not necessarily reflect property boundaries.

This site basically consists of only one operable unit (OU#1), which includes the NHPC properties, contaminated groundwater beneath and flowing off the property, the Merrimack River and Horseshoe Pond. However, for administrative-tracking purposes, EPA has designated a second operable unit (OU#2) that refers to off-site wetland and upland properties located in Merrimack and the adjacent town of Litchfield. As part of the site remedy, these ecologically significant land areas were purchased by the NHDES (with

90% funding from EPA) to off-set the loss of wetlands on the NHPC property that will not be practical to restore. Since OU#2 is not directly relevant to the reuse of the site, it will not be addressed within this report.

Site Contamination/Risk Assessment: The following is a general description of the site contamination. A detailed discussion can be found in the RI report and the Record of Decision (ROD) (EPA, 1998).

The contaminants detected within the site study area correspond to the known plating effluent constituents. These contaminants include metals (cadmium, zinc, chromium, lead, nickel, copper, and tin), chlorinated solvents (PCE, TCE and its degradation products), and cyanide. Low levels of semi-volatile organic compounds (SVOCs) were also infrequently detected, but are not believed to be associated with facility operations.

The results of the Remedial Investigation indicate that the current residual sources of metal and cyanide contamination are:

- surface and subsurface soils in the Lagoon 1 area;

- surface and subsurface soils in the embankments and basins of Lagoons 2, 3, and 4; the Southern Wetland; the Northern Wetland; and the Lagoon 4 overflow areas; and
- to a lesser extent, subsurface soils in the building area.

The metals detected on-site above background concentrations were arsenic, beryllium, cadmium, chromium, copper, lead, manganese, nickel, tin, and zinc. Cyanide was also detected. Arsenic, beryllium, cadmium, chromium, cyanide, lead, manganese and nickel were subsequently concluded to be the contaminants of concern for soils. Cadmium was generally detected more frequently and at higher concentrations than any of the other metals and was therefore determined to be the most toxic contaminant. Lagoon 1 soils contain the highest levels of metal contamination in the study area and are the largest residual source of groundwater contamination.

Several VOCs, SVOCs and pesticides were sporadically detected throughout the study area, but were determined to be at concentrations well below a level of concern and are not contributing sources of groundwater contamination. No residual source of VOC contamination was found in on-site soils except that subsurface soils below the water table in the Lagoon 1 area are likely desorbing chlorinated VOC contamination to the groundwater. Cadmium, along with other metals and chlorinated VOCs, are migrating east and southeast in the shallow overburden aquifer and are believed to be discharging into the Merrimack River and Horseshoe Pond (currently below detectable concentrations).

Groundwater contamination was detected in all three aquifers. However, the levels of contamination in the deep overburden were significantly less than in the shallow overburden, while the bedrock aquifer was relatively unaffected. Metal contamination is present only in the shallow overburden aquifer.

Contaminated groundwater has migrated under adjacent properties and is generally bound by the NHPC property boundary to the north and west, Horseshoe Pond to the south and the Merrimack River to the east. Known off-site properties effected by contaminated groundwater are the YMCA, Jones Chemical, New England Pole, Techwood Systems, Inc. and Lot 22. Groundwater in this area exceeds Maximum Contaminant Levels (MCLs).

Eight VOCs were detected in groundwater at concentrations which exceed MCLs. These include: TCE; 1,1-dichloroethene; PCE; vinyl chloride; TCA; cis- and trans-1,2-dichloroethene; 1,2-dichloroethane; and chloroform. Five metals were also detected in the groundwater above the established MCLs, including cadmium, nickel, chromium, arsenic, and lead. TCE and cadmium were the contaminants that most frequently exceeded their respective MCLs of 5 ug/L.

Surface water and sediment samples were collected and analyzed for VOCs, SVOCs, metals and cyanide from Horseshoe Pond and the Merrimack River. Based on these results, it does not appear that detectable concentrations of site contaminants are discharging to Horseshoe Pond or the Merrimack River. No contaminants were detected in either surface water body. Several sediment samples contained detectable concentrations of VOCs, SVOCs and metals; however, the risk assessment concluded that these levels were below a level of human health or ecological concern.

Planned Site Cleanup Activities: Based upon data developed in the RI and the baseline risk assessment, remedial measures to address human health risks associated with possible exposure to source soils are not warranted because present and future potential risks are within EPA's acceptable carcinogenic risk range and generally below a Hazard Index of one for non-carcinogens. For purposes of conducting the risk assessment, a commercial/industrial use was assumed for the NHPC property.

However, area soils are acting as a source of release of inorganic contaminants to groundwater. Additionally, the levels of inorganic contaminants in the top two feet of soil present an unacceptable ecological risk. Therefore, the soil remedial action is based on protection of groundwater and ecological receptors. In addressing these goals, the incremental risks to human health from exposure to site soils will also be mitigated.

The selected remedy for the New Hampshire Plating Superfund Site is a comprehensive approach that includes both source control and management of migration components.

Source control:

Source control measures consist of exsitu fixation, on-site backfilling of treated soils, and off-site compensatory wetlands restoration.

Metal contaminants leaching to groundwater will be reduced to acceptable levels by chemically altering the soluble metals into stable and much less soluble mineral forms. The treated soils will be used to backfill excavated areas in Lagoons 1 and 2. Excavated areas outside Lagoons 1 and 2 will be re-graded using remaining soils to the extent possible. Minimal clean fill will be added as necessary. The treated soils backfill area will be covered with a two foot permeable soil cover and re-vegetated to prevent erosion and potential exposure of biological receptors to the treated soils (if bioavailability of metals in the treated soil is not sufficiently reduced). The backfilled lagoons and wetlands will be used as storm water retention basins that will have adequate capacity to address runoff from a 100-year storm event. Institutional controls, including land-use restrictions will be implemented to limit certain uses and assure that the clean soil cover over the treated material is not breached.

Another aspect of source control involves the solidified material storage cell (SMSC). The SMSC was intended as an interim measure and does not meet RCRA or state closure requirements. The material will be crushed into small diameter fragments and tested using the Toxicity Characteristic Leaching Procedure (TCLP) to determine if contaminants are able to leach out in significant concentrations. Material that passes the TCLP test will be placed in the Lagoons 1 and 2 area as backfill to be mixed with the treated soil. Materials failing the test will be chemically-fixed, re-tested and, if acceptable, backfilled along with the other material. If not acceptable, it will be sent to an appropriate off-site facility. Soil below the SMSC will also be tested and managed accordingly.

Although the remedy is designed to mitigate adverse impacts to the wetlands and associated ecosystems, it will not be practical to fully restore them. For this reason, off-site wetlands and other valuable wildlife habitat have been purchased and preserved by EPA and the NHDES to compensate for these wetland losses.

Control of Groundwater Migration:

The selected remedy does not involve treatment of groundwater, but provides protection of human health by preventing or controlling potential exposures to contaminated groundwater through institutional controls. With source control in place, the groundwater quality will gradually return to acceptable levels (i.e., will meet federal and state standards) through dilution and natural geochemical attenuation. The activities that will be conducted are institutional controls, long-term monitoring of groundwater to evaluate contaminant status and migration, and a review of site conditions and risks every five years. These activities will not in itself minimize off-site contaminant migration or discharge of contaminated groundwater to the Merrimack River, but in combination with source control, it will achieve these objectives. The institutional controls proposed include:

- Establishing a Groundwater Management Zone (GMZ) pursuant to the New Hampshire Code of Administrative Rule Env-Ws 410.26; and

- Attaching restrictions, or notices as appropriate, to deeds of the NHPC property and the properties within the designated GMZ; or
- Enacting local ordinances to prohibit the potable use of untreated contaminated groundwater underlying the site and within the GMZ.

The remedial design is scheduled for completion in the Fall of 2002. Implementation of the remedy is subject to the availability of CERCLA funds which are allocated on a priority basis.

At full funding levels, the source control measures are expected to take approximately one year to complete from the time of initiation.

NHDES has been a strong partner with EPA in the site investigation and clean-up activities and continues to work in close coordination on matters affecting the site. Under a cooperative agreement between EPA and the NHDES, the state will perform future groundwater monitoring and specified maintenance activities.

SECTION 2 - USE/REUSE STATUS

This section provides a general summary of the current and potential future uses of the site. An important source of this information is the previously cited town of Merrimack's "Superfund Redevelopment Plan" (Redevelopment Plan), which was prepared in 2001 under an EPA-funded Superfund Redevelopment Initiative (SRI) pilot. Through this pilot, the town of Merrimack conducted a public planning process to develop recommendations and an implementation strategy for reusing the New Hampshire Plating Superfund Site. Specific details on that process, general findings/recommendations, and additional background information can be found within that report. The Redevelopment Plan indicates that the most recent, town-wide Master Plan (dated 1993) was an important consideration in evaluating reuse options for the site. The Redevelopment Plan notes that the Master Plan is currently being updated.

The current owners of the NHPC parcels did not participate in the site reuse planning process. One no longer resides in the United States and the other is of poor health and has had very limited involvement in the parcels over recent years.



View of site (to left) from adjacent railroad tracks

Although the NHPC facility consisted of two separate parcels, they will be treated in this document as one property.

► **New Hampshire Plating, Co. Property**

Location: Property consists of Map 4D-2, Parcels 2 and 3 on the Town Assessor Map.

Current Uses: As described previously, this approximately 13 acre property consists of the former operations area, the waste lagoons, wetlands and undeveloped upland areas. The only significant structures remaining on this property are the solidified material storage cells and the former lagoons. As part of the remedy, the SMSC will be removed and the lagoons capped with a soil barrier.

Future Uses: The Redevelopment Plan describes a wide-range of potential uses that were considered during the site reuse planning process. The final recommendation consists of a mixed-use scenario that locates recreation fields in the back portion of the site and reserves the front portion for an undetermined future use. Lighting and irrigation of the recreation fields are also anticipated.

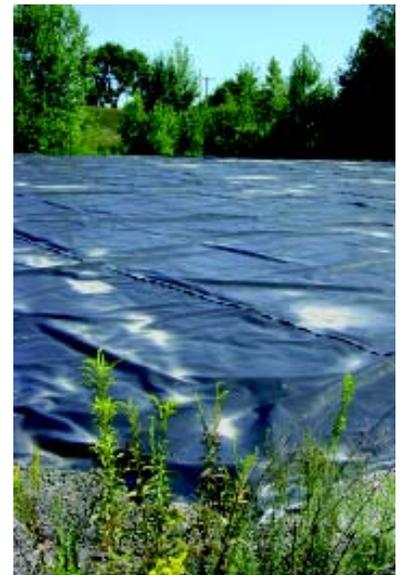
To maximize the short-term benefit of the site, certain transitional uses are envisioned for the front portion. These include a paved parking lot, a small bathroom facility, and possibly a skateboard/roller blade park. A biking and walking trail that links to the Heritage Trail was also suggested, although the specific location was not identified.

Although there remains some uncertainty regarding the long-term future use of the front portion, the recreation fields and transitional uses do not appear to be incompatible with the proposed remedy and should not present any significant technical issues. However, these uses will necessitate certain considerations in the remedy design. For example, any cover material used for the recreational fields will need to meet appropriate state standards and provide a physical barrier to prevent exposure to the contaminated backfill material. Land use restrictions to prevent excavation below the cover are anticipated.. Also, since much of the site lies within the 100-year flood plain, adequate flood storage capacity will need to be maintained.

A critical issue to be addressed is that of site ownership. Currently the properties are privately held and the town will need to acquire them in order to implement its reuse plans. According to the Redevelopment Plan, the properties are in tax arrears and the town plans to execute a tax title taking. The amount that the two parcels are in tax arrears was not listed. Reportedly, the Merrimack Assessing Office has placed the total assessed value at \$17,000 and estimated a value in excess of \$550,000 in a “post-remediated state”.

Subject to the town acquiring the property, there are strong reasons for assuming that the proposed reuse plan can be successfully implemented by the town. These include:

- A public water supply, electrical/phone lines and a municipal sewerline are currently located along Wright Avenue. The water supply feeding the site is eight inches, which should be adequate to provide potable water as well as water for irrigation purposes (Institutional Controls will likely impose restrictions on groundwater use).
- The property can be accessed through an existing public road (The Redevelopment Plan recommends some roadway improvements to accommodate the increased traffic that might result).
- The current zoning for the site is “I1 Industrial” which allows for athletic fields and associated facilities.
- Any buildings and other permanent structures would be located outside of the 100-year flood plain area (The Redevelopment Plan notes that certain restrictions might apply to those portions of the site that lie within the Flood Hazard Conservation District and the Shoreline Protection District, but these are not anticipated to be a significant issue).
- The recreation fields, bathroom facility and parking lot will not require deep excavations that might otherwise breach the protective cap. Also, the recreation fields would be covered with shallow-rooted grasses.
- The proposed reuse plans were developed through a public process and reportedly have broad-based support among the town residents.
- The Board of Selectman have voted to endorse the Superfund Redevelopment Plan and its recommendations.
- The recommendations are reportedly consistent with the town’s Master Plan, Capital Improvement Plan (CIP) and 1999 Parks and Recreation Plan.
- Although the town has not identified a specific funding source for constructing the recreation fields and other reuse improvements, the capital expenditure necessary is expected to be fairly modest.



Tarp over former
NH Plating Co. building

SECTION 3 - GENERAL FINDINGS/RECOMMENDATIONS

This section outlines follow-up actions by EPA to refine its understanding of the intended future uses of the site, consistent with the general exposure scenarios established in the ROD. This will enable EPA to consider these details, as appropriate, in the final remedy design and implementation.

It is important to recognize that because the site is currently owned by a private party, EPA does not have direct control over the future use. Therefore, EPA's primary role will be in ensuring consideration of local reuse efforts in site response decisions and actions. This section provides a general framework for activities that EPA may undertake to help local stakeholders facilitate future land use (including potential reuse) at the site. Many of the details for assistance and collaboration will be worked out through future coordination with stakeholders.

This document is based on information that was readily available to the EPA case team. Also, the reuse issues and considerations identified in this section represent only a partial list of the potential site-specific factors that may need to be considered.

Potential Reuse Issues/Considerations

Site Ownership/Control: As noted previously, the town will need to acquire the property in order to implement its site reuse plans. The Redevelopment Plan indicated the town's intention to pursue a tax foreclosure of the two parcels, but did not specify a time table for doing so. Since the timing of town acquisition could have a bearing on the final design and implementation of the site remedy (see discussion below, "Project Timing"), it will be necessary for EPA to address this issue with the town officials.

EPA or state liens on the property have risen due to past cleanup actions, but their interest may not have been perfected yet.

Project Timing: To the extent that details of the planned reuse are known sufficiently early in the remedial design/remedial action phase of the cleanup, EPA may be able to take reasonable steps to accommodate those uses (e.g., final surface contouring, creation of utility corridors, location of monitoring wells, etc.). Also, this information sometimes makes it possible to phase the remedy so that certain portions of a Superfund site can be used earlier than what might otherwise be the case.

With respect to this site, the most pressing time constraint is for the town to develop more detailed reuse design plans so that EPA can consider them in the remedial design, which is targeted for completion in the Fall, 2002. By understanding more completely how the site is likely to be used, EPA cannot only better ensure that the remedy will be fully protective, but may also be able to significantly reduce the construction and operating costs associated with the town's planned reuse. (See discussion below, "Reuse Planning").

Site acquisition by the town relates to project timing in a number of ways. First, for EPA to consider the town's reuse plan in the remedy, EPA must conclude that the reuse plan represents a reasonably anticipated future land use. Since the reuse plan is dependent on the town owning the property, EPA needs some assurance that this will occur. Second, as the property owner, the town may be able to commit to conducting certain tasks in support of the reuse that EPA might not be able to perform as part of the remedy (such as providing and installing water lines). This allows the town and EPA to coordinate those activities to reduce costs and minimize wasted effort (In the example of the water lines, EPA could coordinate the excavation and backfilling of the utility trench with the town's efforts to install the pipeline).

Site Reuse Planning:

The reuse planning process conducted through the SRI pilot was useful in determining the types of uses envisioned by the town, but did not provide specific details regarding locations, general design features, dimensions and so forth. In order to fully consider these uses in the design and implementation of the remedy, further work will need to be done to develop that information. This will be particularly important for the recreation fields, which not only occupy a very significant portion of the site, but will be located on top of the soil cover and underlying treated soils.

An important factor that will need to be considered in designing and locating the recreation fields is the need to maintain adequate flood storage capacity. As discussed previously, much of the back portion of the site is in the 100-year flood plain. In order to maintain the necessary flood storage capacity, EPA has determined that the site cannot reasonably accommodate the three regulation soccer fields contemplated in the Redevelopment Plan, even though the site configuration might suggest otherwise. This, therefore, will serve as an important constraint to the intended reuse plans.

Liability Issues: As was correctly pointed out in the Redevelopment Plan, municipalities are generally not held liable for site cleanup under Superfund if they take ownership through what is termed an “involuntary acquisition”, such as a tax foreclosure. However, the liability protection afforded by this provision is subject to certain conditions that should be recognized by a municipality prior to acquiring a Superfund property. For instance, a municipality might be responsible for cleanup costs arising from its activities that cause or contribute to further release of hazardous substances (e.g., breaching a landfill cover, damaging a groundwater containment system, etc.).

Also, since the Redevelopment Plan leaves open the possibility of transferring ownership of the front portion of the site to another party, the town will need to consider how Superfund liability might impact the marketability and ultimate reuse of the property.

EPA may have a role in educating the town about the Superfund liability structure and policies (including the recent Brownfields legislation), and available public and private liability management tools (e.g., comfort letters, insurance options, etc.).

Institutional Controls: The remedy will impose institutional controls at the site. The ROD suggests that these could include possible restrictions on groundwater use, excavation and construction activities in designated areas, and non-commercial/industrial uses. However, in consideration of the town’s current reuse plans, the prohibition on non-commercial/industrial uses may need to be revisited.

While the planned reuse should be generally compatible with the proposed remedy, including the institutional controls, specific design details for those reuse activities will need to be available sufficiently early in the remedial design process to minimize potential conflicts. In certain cases, it may even be possible to take additional cleanup actions or design the institutional controls so as to accommodate those uses (For example, additional contaminated soil could be removed in an area where future below-grade structures or utility corridors will be located).

Recommendations for Follow-up

In order to more fully consider the town’s reuse plans in the design and implementation of the site remedy, short term focus should be on resolving two key issues. The first, of greatest urgency, is the development of design/construction details for the recreation fields and other aspects of the town’s preferred reuse plan. To help accomplish this, EPA has allocated additional funding to amend the town’s existing SRI pilot to allow them to complete this design work and create an addendum to the Redevelopment

Plan. The secondary issue of incorporating potential institutional controls, zoning requirements (including the zoning “overlay districts” described in the Redevelopment Plan), and other restrictions into the reuse plans should also be addressed as part of that effort. The other time-critical issue is obtaining the town’s commitment to acquire control or ownership of the site and to outline a general time line for doing so.

Some specific follow-up actions by EPA may include:

1. Obtaining confirmation from the town of its intent to acquire the site.

2. Coordinating with the town throughout the preparation of the Redevelopment Plan addendum to:
 - a. Ensure compatibility of the reuse plans with the remedy (including the maintaining of adequate flood storage capacity).
 - b. Make reasonable accommodations in the remedy design and implementation.
 - c. Integrate the respective schedules for conducting remedial cleanup and site reuse activities.
 - d. Identify and coordinate with the remedial construction activities any specific tasks that the town may take relative to implementing its reuse plans (e.g., installation of water and other utility lines).
 - e. Identify opportunities for phasing in portions of the town’s reuse plan to allow earlier public use of portions of the site (such as the creation and use of the biking and walking trails).
 - f. Establish site-specific institutional controls and a process for ensuring compliance with those controls.

3. Assisting the town, as necessary, to understand and consider relevant Superfund requirements, policies and procedures in its plans for the future reuse of the site.

APPENDIX A - Reference Documents Cited

Halliburton NUS, 1996 - Draft Final Remedial Investigation Report for the New Hampshire Plating Company, Volumes 1- 4.

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