

**APPENDIX A**  
**APPROVAL MEMORANDUM**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
1 CONGRESS STREET, BOSTON, MA 02114

MOHAWK TANNERY
Agency: 217
Other: AR

DATE: July 12, 2000

SUBJ: Mohawk Tannery Superfund Site - Approval Memorandum to perform an Engineering Evaluation/Cost Analysis for a Non-Time-Critical Removal Action

FROM: Neil Handler, Remedial Project Manager NH/RJ Superfund Section *NH*

THRU: Larry Brill, Chief *LHB*  
Office of Site Remediation and Restoration I

Rich Cavagnero, Chief *RC*  
Emergency Planning and Response Branch

TO: Patricia L. Meaney, Director  
Office of Site Remediation and Restoration

## L Subject

Investigations by the United States Environmental Protection Agency (EPA) and the New Hampshire Department of Environmental Services (NHDES) have determined that there has been a release of hazardous substances to the environment at the Mohawk Tannery Superfund Site (the Site) in Nashua, New Hampshire. This Site was proposed for listing on the National Priorities List (NPL) on May 11, 2000, with the concurrence of the Governor of New Hampshire.

This memorandum documents the decision to proceed with an Engineering Evaluation/Cost Analyses (EE/CA) for a non-time-critical removal action (NTCRA) at the Site. The EE/CA will address contaminated tannery wastes which have been disposed of on-site in unlined lagoons and pits that are located within the 100-year flood plain of the Nashua River. There is evidence that the contaminants placed in these lagoons are migrating into the nearby Nashua River and groundwater. This approval memorandum authorizes the expenditure of federal funds for the EE/CA. EPA will be conducting a time-critical removal action during the summer of 2000, to address contaminants found in drums, laboratory containers, a storage tank, a primary clarifier, and asbestos on pipes at the Site. In addition, EPA hopes to initiate a remedial investigation and

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feasibility study later this year to evaluate the full nature and extent of groundwater contamination and impacts to the Nashua River.

The decision to proceed with the EE/CA is consistent with EPA guidance regarding Superfund Accelerated Cleanup Model (SACM) early actions and the long-term remedial strategy for this Site to minimize exposure to and migration of contaminants and to restore the Site and the Nashua River to productive uses. This memorandum is not a final Agency decision regarding the selection of a response action for the Site.

### II. Background

#### A. Site Description and History

The Mohawk Tannery Superfund Site is located in the City of Nashua, Hillsborough County, New Hampshire. The Site is located approximately one mile west of the center of the city, at the intersection of Fairmount Street and Warsaw Avenue (See Figure 1). The Site consists of two contiguous properties: an approximately 15 acre developed parcel to the north, on which the inactive tannery facility is situated, and an undeveloped parcel to the south which is also approximately 15 acres in size. The parcels are bordered by the Nashua River to the west, a closed landfill to the north, and residential areas to the south and east. The nearest residence is located between 80 and 100 feet southeast of the property. There is a chain link fence along the northern, southern, and eastern borders of the site (the Nashua River is to the west). Several on-site structures have been demolished, but the debris has not been removed. Although the facility has been inactive for over 15 years, several commercial businesses (e.g., auto-repair, landscaping service) are reported to be currently operating at the site against local zoning ordinances. As a result the front gate is left open much of the time and access to the site is unrestricted.

The Mohawk Tannery, also known as Granite State Leathers, operated during the time period from 1924 to 1984. While in operation the facility used numerous hazardous substances during the preparation and tanning of hides. Such substances included volatile organic compounds (VOCs), inorganic metals, chlorinated phenols and alkaline and acidic solutions. The principal contaminant found in the waste streams produced at the Site was spent chromium. In addition to chromium, the wastes contained VOCs, chlorinated phenols, proteinaceous solids (e.g., hair, fleshings and hide scraps), alkaline and acidic residuals, mineral salts, and undissolved lime.

Due to incomplete records there is little known about the tannery's effluent treatment practices prior to the 1960's. In general, industry practice and regulatory requirements during that time frame did not require treatment of the wastes before their discharge into nearby waterways. In the 1960's, two unlined lagoons were constructed at the Site within approximately thirty feet of the Nashua River to provide some treatment of the wastewater before its discharge into the river. Both lagoons are located within the 100-year flood plain of the Nashua River. Treatment in the

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lagoons, which are identified as Area I and Area II on Figure 2, consisted of combining the alkaline and acid waste stream effluents to allow the solids to settle out. The liquid fraction was then discharged into the Nashua River.

A separate treatment process for the alkaline and acid waste streams was put in use from around 1971 to 1981. The alkaline effluent was pumped first into the Area II lagoon and then into the Area I lagoon before the liquid fraction was discharged into the Nashua River. The acid effluent was passed through a series of settling basins before being discharged to the Nashua River. The sludge from the lagoons and settling basins, consisting primarily of chromium salts, was periodically dredged and disposed of into four additional areas at the Site, noted as Areas III-VI on Figure 2. The sludge in these disposal areas is estimated to range in thickness from approximately three feet to ten feet.

In anticipation of new state and local water quality discharge and solid waste disposal requirements, work began in 1971 to design a new treatment facility at the Site. The new treatment system, the construction of which was not completed until 1981, consisted of a control building, screen house, equalization tank, sulfide oxidation tank, primary clarifier, Indronova sludge dewatering unit with belt filter press, aerated lagoon (existing Area I lagoon), a secondary clarifier, and a PVC lined landfill (Fimbel Door Company Landfill as identified in Figure 2). During construction, it was reported that sludge located in the general vicinity of the new primary clarifier (Area VI as identified on Figure 2) was transferred to Areas III - V. The use of the Area II lagoon was discontinued prior to the completion of the new treatment system. The lagoon was covered with a layer of 4- to 12-inch diameter logs over which some fill was placed. Area II has since been allowed to naturally be re-vegetated and at this time is predominantly covered with aquatic vegetation such as cattails.

After the treatment system became operational in 1981, dried sludge was placed in the adjacent Fimbel Landfill (Area VIII as identified on Figure 2). The landfill, which is lined, comprises a three acre square-shaped parcel. Use of the new wastewater treatment system and adjacent landfill continued until July 1984, at which time the Mohawk Tannery ceased operations.

Since 1984, disposal areas III through VIII have been covered with up to a few feet of sand and gravel and allowed to naturally re-vegetate. Area I, the northern lagoon is still uncovered and is full of standing water for most of the year (See Figure 3). There is a pipe nearby Area I which appears to drain from the lagoon into the Nashua River, although it is unclear whether the pipe has collapsed or been plugged. The Fimbel Landfill has also been capped and closed under New Hampshire State Regulations.

In May of 1987, NHDES conducted an inspection of the property, and observed a release of aqueous material from the berm area of the Area I lagoon. The property owner, Warren Kean, was ordered to conduct additional sampling to determine the source of the release. Mr Kean was

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also required to conduct a study to characterize the contamination at the Site. To date there has been no remediation of the Site by the property owner.

Residents in the vicinity of the Site are supplied with municipal water by the Pennichuck Water Company. The majority of residents within 4 miles of the Site obtain their drinking water from municipal supplies located greater than 4 miles from the Site. Two drive point residential wells approximately 30 feet deep, were identified as the nearest receptors. These wells which are located approximately 1/2 mile southeast of the Site on Bitimas Street, provide water for two households. These wells were last sampled and analyzed by NHDES for volatile organic compounds (VOCs) and inorganics in October 1994. Laboratory analysis detected no evidence of contamination related to the Site.

### C. Nature and Extent of Contamination

There have been a number of investigations completed at the Site to determine the nature and extent of soil, groundwater and surface water contamination caused by past disposal practices (e.g., burial of wastes in lagoons and disposal pits). The current Site conceptual model based on these investigations is that the sludge and wastes buried on-site have in the past and currently continue to impact the nearby surface water and the groundwater. It appears that contaminants found in the sludge and wastes are physically being transported (e.g., through direct pathways such as an existing outfall pipe or migrating via overland flow as soil is carried down to the river) into the Nashua River. In addition the lagoons are unlined and wastes have been buried below the water table in a number of the disposal areas, allowing for a direct impact to the groundwater. As a result the material buried on-site represents a long-term source of hazardous substances which will continue to contribute to surface water and groundwater contamination unless addressed. Additional information regarding the contaminants found at the Site and the basis for the Site conceptual model is provided below.

From 1972 to 1984, there were several investigations performed at the Mohawk Tannery by a number of different contractors including Goldberg-Zoino Associates, Incorporated (GZA) and Camp, Dresser, and McKee Incorporated (CDM). The investigations were performed primarily to evaluate areas of the Site for construction of the new treatment system, locate an area to be used as a landfill for sludge disposal, and as part of a hydrogeologic study performed by GZA. Although primarily geotechnical in nature, the early investigations showed the close proximity of wastes to the Nashua River and that the wastes were buried below the water table in the lagoons and many of the disposal pits. In addition, samples of the sludge taken during this time frame identified concentrations of total chromium ranging from 4,600 mg/l to 13,050 mg/l.

Starting in 1985, GZA worked on Phase II of a hydrogeologic study of the Site. As part of this work, eleven monitoring wells were installed and samples were taken of the groundwater, surface water, and sludge for analysis of contaminants. Elevated levels of volatile organic compounds,

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acid extractables, and toxic metals were detected in the sludge. Specifically, the compounds reported in the sludge and their highest concentrations included: methylene chloride (290 ppb), tetrachloroethylene (380 ppb), toluene (9,300 ppb), acetone (3,600 ppb), 2,4,6-trichlorophenol (140,000 ppb), pentachlorophenol (510,000 ppb), chromium (1,000 ppb), and lead (400 ppb). It should be noted that the concentrations shown for metals represent the results of EP Toxicity Analyses rather than a total metals analyses.

In March of 1986, sludge samples were collected by EPA from Areas I through VII and analyzed for dioxin. The concentration of dioxin isomers detected in the sludge disposal areas ranged from 0.1 to 326 parts per billion (ppb), with Area II containing the highest concentration. In 1986, the U.S. Agency for Toxic Substances and Disease Registry (ATSDR), using equivalency calculations, determined that the concentration of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD), the most toxic form of dioxin, was 2.27 ppb. The current recommended cleanup level for TCDD in soil for a residential exposure scenario is 1.0 ppb. It appears that the presence of dioxin at the Site may be linked to the use of pentachlorophenol as a biocide for hides undergoing the tanning process. Dioxin can be a by-product in the preparation of pentachlorophenol. Elevated levels of pentachlorophenol were detected in a number of sludge disposal areas as well as from a sample recently taken from the primary clarifier.

In response to the detection of dioxin isomers at the Site, the New Hampshire Department of Public Health Services (NHDPHS) in cooperation with the U.S. Fish and Wildlife Service (USFWS) completed a study in 1986 to address issues concerning potential human exposure to these contaminants through the consumption of fish in the Nashua River. The concern being that soil, which might contain these contaminants, if transported from the Site into the river could allow the contaminants to accumulate in the tissues of fish. The river is stocked and is fished by local residents nearby the Site.

The study completed by the NHDPHS and USFWS looked at the concentrations of polychlorinated dibenzo-p-dioxins (PCDD's) and polychlorinated dibenzofurans (PCDF's) in fish. The study focused primarily on bottom feeders because of their greater exposure to potentially contaminated sediments. The results showed the presence of 2,3,7,8-tetrachlorodibenzo furan (TCDF) in all samples. No other PCDD's or PCDF's were detected. At the time of the study there was no information available as to background levels of TCDF in New Hampshire's aquatic biota, making speculation difficult as to whether the concentrations detected were elevated or site-specific. However, the concentrations detected fall within the high end of the range of levels reported in literature for TCDF in fish from the Midwest and the Hudson River. Since the study was primarily screening in nature, the NHDPHS was unable to make specific fish consumption recommendations. The study indicated that additional sampling would be necessary to determine whether the levels found were of concern and were site-related.

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In May of 1989, under EPA direction, Roy F. Weston conducted a magnetometer survey and subsurface sampling of a number of the disposal areas. The laboratory results confirmed that the predominant contaminants of concern in the sludge were metals but there were also elevated levels of semi-volatile compounds. Specifically, some of the compounds reported and their highest concentrations included: chromium (24,200 ppm), copper (257 ppm), lead (323 ppm), mercury (1.57 ppm), zinc (230 ppm). The New Hampshire remediation level established for direct human contact of chromium in soil is 1,000 ppm.

In October 1993 the NHDES completed additional sampling of sediment in the Nashua River adjacent to the Site to better quantify the impacts of the tannery on the river. Elevated levels of chromium, cadmium and lead were detected. The maximum concentration of chromium, cadmium and lead in the sediment was 144 ppm, 18.7 ppm, and 163 ppm. The concentration of chromium present in the sediment adjacent to the Site is significantly higher than the observed background concentration. In addition, the levels detected nearby the Site exceed both the lowest effect level and severe effect level, indicating a potential risk to sediment dwelling and other aquatic organisms. A preliminary ecological screening of available site-specific data by EPA in April 2000 strongly suggests that aquatic and terrestrial organisms associated with this area are being exposed to levels of contamination that could result in adverse biological effects.

One of the likely points of entry for contaminants from the Site into the surface water is a 12-inch to 14-inch diameter concrete pipe located on the east bank of the Nashua River adjacent to the Area I lagoon. A soil sample taken in October 1993 from soil around the pipe outfall detected elevated levels of chromium (3,290 ppm). In addition, the integrity of the berm itself separating the contaminated sludge from the Nashua River may be questionable as there have been a number of releases documented and reported by the NHDES during the operation of the tannery.

III. Threat to Public Health, Welfare, or the Environment

Section 300.415(b)(2) of the National Contingency Plan (NCP) lists a number of factors for EPA to consider in determining whether a removal action is appropriate, including:

- (i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;
- (ii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;
- (iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;

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- (iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;
- (v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;
- (vi) Threat of fire or explosion;
- (vii) The availability of other appropriate federal or state response mechanisms to respond to the release; and
- (viii) Other situations or factors that may pose threats to public health or welfare or the environment.

An evaluation of the conditions at the Mohawk Tannery Superfund Site conclude that factors (i), (ii), (iv), (v), and (vii) are applicable as described below.

**(i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants -**

At present, the contaminated sludge and sediments represents the most significant threat to human health and the environment. With regard to actual or potential exposure to nearby human populations, EPA has documented elevated levels of contaminants including chromium, cadmium, pentachlorophenol, and dioxins in numerous sludge disposal areas at the Site which could provide a threat to human health and the environment. These lagoons and disposal areas have never been provided with an engineered permanent cover and range from currently having no cover at all (i.e., nothing to prevent human or ecological receptor exposure) to being covered with fill from several inches to several feet thick. Although the Site is fenced, there are numerous areas where it appears that individuals still trespass on to the Site. In addition, the Site has been rezoned residential by City of Nashua and there appears to be significant interest by private parties and the City to re-develop the property for that purpose. As a result, human populations could be further exposed to subsurface soils as a result of the development of the property. EPA's time-critical removal activities will eliminate the hazards presented by discarded drums, laboratory containers, and the contents of the primary clarifier but will not address the problems caused by hazardous substances improperly disposed of in the lagoons.

With regard to actual or potential exposure to animals or the food chain, the contaminants of concern as well as exposure scenarios are somewhat similar to that discussed above. The concern for direct exposure of wildlife to the contaminants at the Site has been documented by EPA and State personnel. During visits to the Site there have been ample evidence of wildlife activity including beaver and bird activity in the Area I lagoon where wastes have been left uncovered and there is a direct pathway for exposure. In addition, the results of earlier

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investigations and studies have confirmed that many of the contaminants of concern are migrating from the Site into sediments found in the adjacent Nashua River. A preliminary food chain study performed in 1986 identified the presence of furans in samples of fish tissue taken nearby the Site. However, the results of the study were inconclusive in identifying whether the furans came from the Site and whether an advisory related to food consumption should be issued.

### (ii) Actual or potential contamination of drinking water supplies or sensitive ecosystems -

The Nashua River and its associated wetlands and flood plain represent a sensitive ecosystem at the Site. Numerous media in this ecosystem have been affected by contamination: sediment, surface water, soil, and wetland areas. Although an ecological risk assessment has not yet been conducted at the Site, numerous birds, fish and animals have been observed at the Site by State and EPA personnel. A preliminary ecological screening indicates that birds, mammals, and fish may be at risk when they forage in the various habitats associated with the Site based on the elevated levels of hazardous substances found there.

(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate - High levels of hazardous substances have been found in soils largely at or near the surface of the lagoons and disposal areas at the Site. None of the lagoons or disposal areas have an engineered permanent cover. In addition, many have little to no fill over the hazardous substances disposed of in them. Nor do they have any means of run-on or run-off control. Accordingly, the wastes in these areas are subject to erosion as well as periodic flooding by the Nashua River. Erosion and flooding already appear to have caused the contaminated wastes to migrate, since elevated levels of hazardous substances associated with the Site have been found in Nashua River sediments located adjacent the Site.

(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released - A number of the lagoons and disposal areas at the Site are located in the 100-year flood plain of the Nashua River. The two largest of these areas (Area I and II lagoons) are located within 30 feet of the Nashua River. None of the areas were designed constructed, operated, and maintained in a way to prevent washout of hazardous substances in the event of a flood. In addition, there is evidence of repeated releases from at least the Area I lagoon into the Nashua River. These releases may be the result of unsound diking or a drainage pipe which discharges directly into the Nashua River. Weather conditions have caused and will continue to cause the migration of contaminated wastes at the Site into the Nashua River and the migration of contaminated sediments further downstream. In addition, if the integrity of the dikes surrounding Areas I and II were to fail than approximately 30,000 cubic yards of contaminated wastes could be released into the Nashua River.

(vii) The availability of other appropriate federal or state response mechanisms to respond to the release - There are no other known federal or state funds or response mechanisms available to finance this action. The current Site owner does not have sufficient assets available to perform

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this action.

Based upon the NCP factors previously listed, a current or potential threat exists to public health or welfare or the environment due to the release or threat of release of hazardous substances into the environment. A NTCRA is therefore appropriate to abate, prevent, minimize, stabilize, mitigate, or eliminate such threats.

The scope of the NTCRA will be to remove, control or contain the risk of actual or potential exposure to hazardous substances found in the lagoons and disposal areas located at the Site. This removal is designated as non-time-critical because more than six months planning time is available before on-site activities must be initiated. Prior to the actual performance of a non-time critical removal at this Site, Section 300.415(b)(4) of the NCP requires that an engineering evaluation/cost analysis (EE/CA) be performed in order to weigh different response options.

### IV. Endangerment Determination

There may be an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance from the Site.

### V. Scope of the EE/CA

The purpose of the EE/CA will be to evaluate alternatives for response measures to address the contaminated wastes in the lagoons and disposal areas at the Site and soils associated with these areas. The EE/CA will consider alternatives which meet the following general removal action objectives:

- Prevent, to the extent practicable, human exposure to contaminated wastes in the lagoons and disposal areas and associated soils found at the Site ; and
- Prevent, to the extent practicable, continued environmental impacts from the migration of contaminants from the lagoons and disposal areas into the Nashua River.

Pursuant to EPA guidance on EE/CAs, alternatives will be evaluated based upon effectiveness, implementability, cost and compliance with ARARs to the extent practicable. Further, alternatives which exceed \$2 million dollars will be evaluated to determine their consistency with future remedial actions to be taken at the Site.

In developing the range of alternatives to be evaluated in the EE/CA, EPA will consider 300.415(d) of the NCP as well as relevant guidance. It is anticipated that the EE/CA will be completed within twelve to fifteen months of being fully funded. The EE/CA will form the basis of the Action Memoranda which will document the cleanup approach. Procurement of the response action contractor and construction of the NTCRA would begin immediately following the approval of the

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Action Memoranda.

**VI. Enforcement Strategy**

On December 2, 1999, EPA mailed Notice of Potential Liability and Request for Access to Chester Realty Trust, the current owner of the property. On April 4, 2000, a 104(e) Request for information letter was sent to Chester Realty Trust. On April 18, 2000, Notice of Potential Liability and 104(e) Request for information letters were sent to Warren W. Kean, a former owner/operator and beneficiary of Chester Realty Trust, W. Russell Kean Revocable Trust, a former owner/operator, and Granite State Tanning Company, a former operator. On June 1, 2000, a Notice of Potential Liability and 104(e) Request for information letter was sent to Mohawk Associates, Inc., a former operator.

EPA plans to issue a UAO to one or all, of the above parties to perform the time critical removal action, once the viability of the parties has been determined. It does not appear that any or all of the above parties has the financial resources to perform either the time-critical or non-time-critical removal actions.

**VII. Estimated Costs**

The EE/CA for the proposed NTCRA at the Mohawk Tannery Superfund Site will be performed by EPA. The EE/CA will likely be developed by an EPA contractor under the Response Action Contracts (RACs) program.

Extramural costs associated with sampling activities, the preparation of the EE/CA, community relations support activities, and the development of an Administrative Record is expected to cost approximately \$500,000. Based upon a preliminary EPA estimate, costs associated with the removal action for the lagoons and disposal areas may range between \$4 to \$8 million. The costs will be significantly impacted by the volume of soil that may require disposal, whether the material is considered a hazardous waste, and whether on-site or off-site disposal is required.

**VIII. Other Considerations**

In addition to considering the Section 300.415(b)(2) factors which were discussed in Section III of this Memorandum, EPA guidance also recommends that the following additional factors be considered in determining whether to employ a non-time-critical removal action or remedial action: (1) time-sensitivity of the response; (2) the complexity of both the problems to be addressed and the action to be taken; (3) the comprehensiveness of the proposed action and (4) the likely cost of the action. The February 14, 2000, EPA Guidance for the Use of Non-Time-Critical Removal Authority in Superfund Response Actions, states that a NTCRA is generally appropriate where a site presents a relatively time-sensitive, non-complex problem that can and should be addressed relatively inexpensively.

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To summarize the information provided in other Sections of this Memorandum, hazardous substances from the lagoons and disposal areas at the Site which are located within the 100-year flood plain, are migrating into the Nashua River. The levels of site-related contaminants found in soil and sediment at and/or nearby the Site already present a risk to human health and the environment. As these impacts are likely increase over time and have the potential to increase exponentially if the dikes separating the two largest disposal areas (Area I and II) from the river were to fail, the time-sensitivity of this action is well documented.

The scope of the work to be completed and focus of this response action is fairly well defined (i.e., to remove, control or contain the risk of actual or potential exposure to contaminants found in the lagoons and disposal areas located at the Site) and therefore its complexity falls within the anticipated range for a NTCRA. Certainly additional sampling work and data evaluation needs to occur as part of the EE/CA to better quantify and qualify the sludge and define disposal options but these are manageable and discrete tasks.

It is intended that whatever solution the EE/CA identifies (i.e., ranging from capping in place to excavation and disposal of off-site) it will provide a comprehensive solution. Mitigating the main "sources" of contamination at the Site provides such a comprehensive solution since it is certainly and integral portion of the overall cleanup at the Site whether its pursued as a removal action or response action. The groundwater and surface water components of the overall site-wide cleanup will still remain to be addressed but because of the complexity of these problems they do not lend themselves to being pursued through the removal process.

The last factor to be discussed relates to the anticipated cost of the NTCRA. Based on preliminary data it is anticipated that this response action will cost between \$4 to \$8 million. EPA has attempted to be conservative in some of its initial assumptions and therefore the actual costs to implement may be towards the lower end of the above estimate. However, the cost estimate will likely exceed the \$2 million ceiling thereby requiring a waiver for implementation. Certainly with the current budget constraints funding is an important issue but as indicated in the February 14, 2000, guidance the \$2 million ceiling is meant as a fiscal check and not part of the statutory definition of a "removal".

The problem to be addressed at the Site (i.e., to remove, control or contain the risk of actual or potential exposure to contaminants found in the lagoons and disposal areas located at the Site) meets the criteria discussed above and therefore the proposed response action is appropriate as a NTCRA. The proposed NTCRA is congruent with the anticipated remedial actions to minimize exposure to and migration of contaminants and to restore the Site and the Nashua River to their respective productive uses. The proposed NTCRA is one part of a three phased approach to address concerns at the Mohawk Tannery Superfund Site. The other two components are (1) the EPA time-critical removal action which is schedule to take place during the summer of 2000 to address contaminants found in drums, laboratory containers, a storage tank, a primary clarifier, and asbestos on pipes at the Site, and (2) an RI/FS which will characterize the groundwater and surface water contamination at the Site, followed by implementation of the selected remedy. EPA hopes to begin work on the

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RI/FS later this year.

The State of New Hampshire, the City of Nashua, and residents living nearby the tannery all support an early action at this Site.

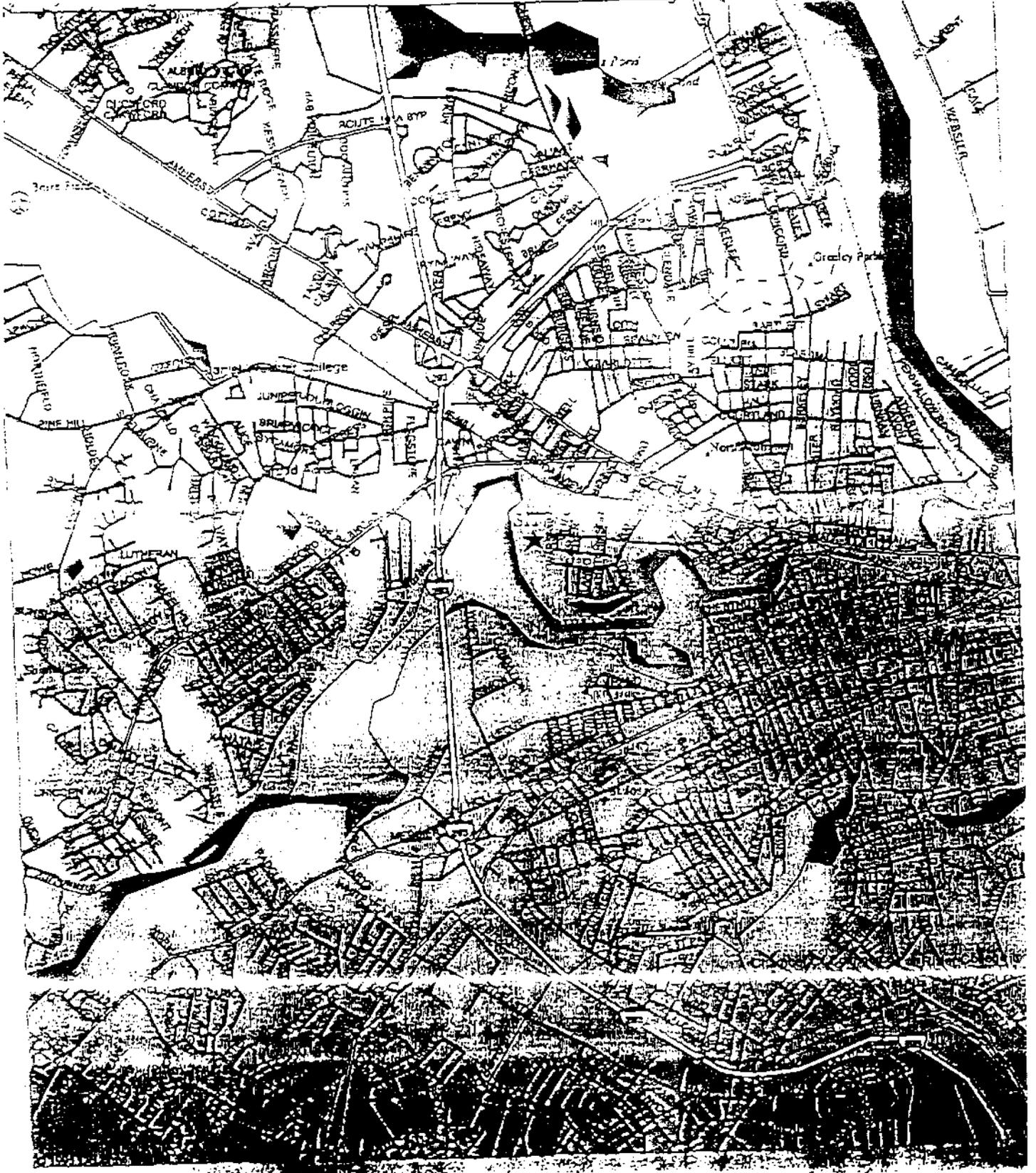
**IX. Recommendation**

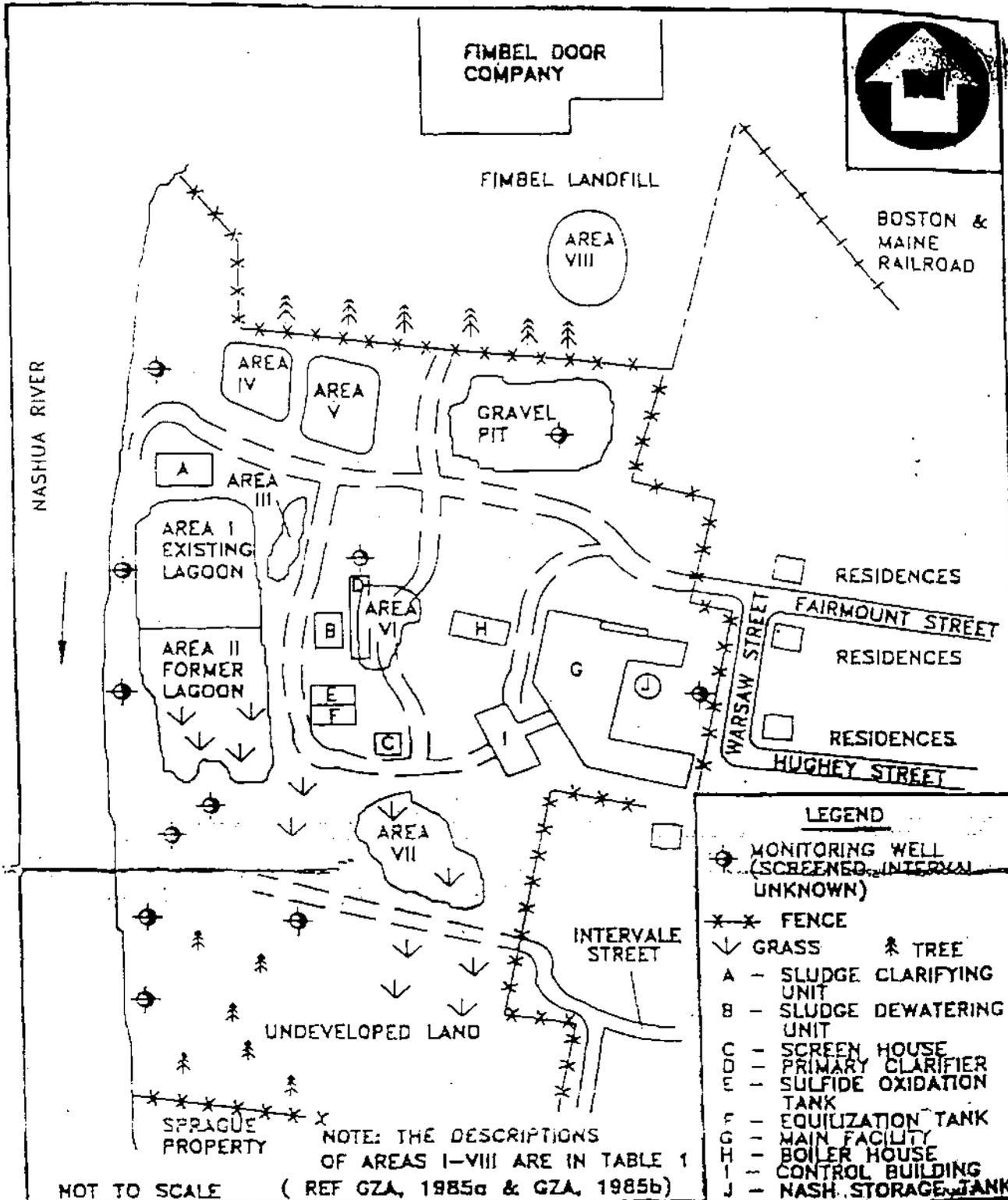
Ongoing investigations have determined that there has been a release of hazardous substances to the environment. Additionally, the conditions at the Site meet the NCP Section 300.415(b) criteria for a removal. Consistent with Section 104(b) of CERCLA and NCP Section 300.415(b)(4), further investigation is necessary to plan and direct the future removal actions. We recommend your approval of this request to perform an EE/CA at the Mohawk Tannery Superfund Site. The total estimated extramural cost of performing the EE/CA is \$500,000.

*July 19, 2000*  
Date

*Patricia L. Meany*  
Patricia L. Meany, Director  
Office of Site Remediation and  
Restoration

# FIGURE 1 SITE LOCUS MAP





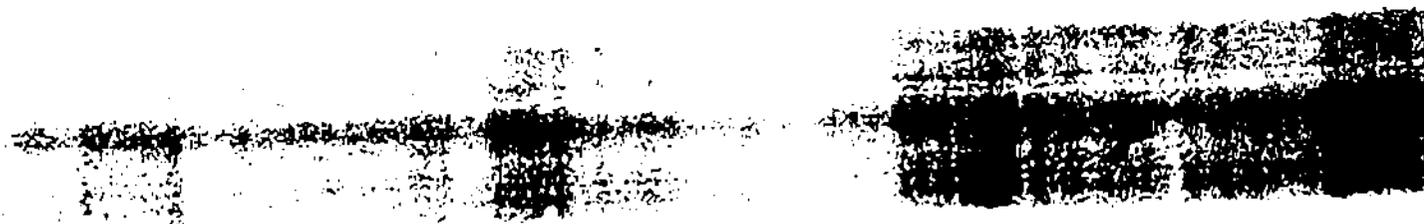
**SITE SKETCH**

**WOLAW TANNERY**  
**NASHUA, NEW HAMPSHIRE**



FIGURE 3

AREA I LAGOON AS OF 5/10/2000



MOHAWK TANNERY  
ADMINISTRATIVE RECORD FILE  
EE/CA JULY 2000

1. SITE ASSESSMENT

1. REPORT: PHASE 2 HYDROGEOLOGIC STUDY & CONCEPTUAL CLOSEOUT PLAN.  
TO: FAIRMOUNT HEIGHTS ASSOCIATES  
AUTHOR: GOLDBERG-ZONIO & ASSOCIATES INC  
DOC ID: 6738 10/01/1985 261 PAGES
2. SAMPLING & ANALYSIS DATA: DIOXIN SAMPLING RESULTS.  
TO: NH DEPT OF ENVIRONMENTAL SERVICES  
AUTHOR: US EPA REGION 1  
DOC ID: 6743 06/10/1986 17 PAGES
3. LETTER: REVIEW OF DIOXIN SAMPLING DATA.  
TO: MARILYN DISIRIO, US EPA REGION 1  
AUTHOR: JEFFREY A LYBARGER, US DHHS/AGENCY FOR TOXIC SUBSTANCES & DISEASE  
REGISTRY  
DOC ID: 6744 07/07/1986 4 PAGES
4. LETTER: RESULTS OF STATE INSPECTION OF LAGOON 1.  
TO: WARREN M KEAN, GRANITE STATE LEATHER INC  
AUTHOR: JOHN A MINICHELLO, NH DEPT OF ENVIRONMENTAL SERVICES  
DOC ID: 6742 06/22/1987 3 PAGES
5. REPORT: PRELIMINARY ASSESSMENT.  
TO: US EPA REGION 1  
AUTHOR: NUS/TETRA TECH INC  
DOC ID: 6739 07/31/1987 11 PAGES
6. REPORT: SITE INVESTIGATION.  
TO: US EPA REGION 1  
AUTHOR: ROY F WESTON INC  
DOC ID: 6740 07/01/1989 55 PAGES
7. REPORT: SCREENING SITE INSPECTION REPORT, FINAL.  
TO: NH DEPT OF ENVIRONMENTAL SERVICES  
AUTHOR: NUS/TETRA TECH INC  
DOC ID: 6737 07/05/1989 36 PAGES
8. REPORT: SITE INSPECTION PRIORITIZATION REPORT, FINAL.  
TO: US EPA REGION 1  
AUTHOR: NH DEPT OF ENVIRONMENTAL SERVICES  
DOC ID: 6736 11/01/1996 187 PAGES
9. LETTER: EXPRESSION OF THE STATE OF NEW HAMPSHIRE'S SUPPORT FOR INCLUSION  
OF GRANITE STATE LEATHER (MOHAWK TANNERY) SITE ON SUPERFUND  
NATIONAL PRIORITIES LIST.  
TO: CAROL BROWNER, US EPA HEADQUARTERS  
AUTHOR: JEANNE SHAHEEN, NH GOVENOR  
DOC ID: 6735 03/08/2000 2 PAGES

MOHAWK TANNERY  
ADMINISTRATIVE RECORD FILE  
EE/CA JULY 2000

2. REMOVAL RESPONSE

1. REPORT: REMOVAL PROGRAM PRELIMINARY ASSESSMENT/SITE INVESTIGATION REPORT  
FOR 08/11/1999.  
TO: US EPA REGION 1  
AUTHOR: ROY F WESTON INC  
DOC ID: 6741 10/01/1999 49 PAGES
2. REPORT: REVIEW & TECHNICAL COMMENTS ON ECOLOGICAL SCREENING OF  
PRELIMINARY DATA & RECOMMENDATIONS FOR ADDITIONAL SAMPLING.  
TO: NEIL E HANDLER, US EPA REGION 1  
AUTHOR: PATTI LYNNE TYLER, US EPA REGION 1  
DOC ID: 6745 04/17/2000 16 PAGES
3. MEMO : CONSULTATION ON DRAFT ENGINEERING EVALUATION/COST ANALYSIS  
(EE/CA) APPROVAL MEMO.  
TO: LARRY REED, US EPA HQ/OFFICE OF EMERGENCY & REMEDIAL RESPONSE  
AUTHOR: ART JOHNSON, US EPA REGION 1  
DOC ID: 6803 06/22/2000 2 PAGES
4. MEMO : APPROVAL MEMORANDUM TO PERFORM AN ENGINEERING EVALUATION/COST  
ANALYSIS FOR A NON-TIME-CRITICAL REMOVAL ACTION.  
TO: PATRICIA L MEANEY, US EPA REGION 1  
AUTHOR: NEIL E HANDLER, US EPA REGION 1  
DOC ID: 6801 07/12/2000 15 PAGES

20. RECORDS MANAGEMENT

1. INDEX : GUIDANCE DOCUMENTS.  
DOC ID: 6805 1 PAGE

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