OR Unit 01

DECLARATION FOR THE RECORD OF DECISION

SITE NAME AND LOCATION

Preferred Plating Corporation, Farmingdale, Suffolk County, New York

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for the Preferred Plating Corporation Site developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act, 42 USC § 9601, et seq., and to the extent applicable, the National Oil and Hazardous Substances Pollution Contingency Plan , 40 CFR Part 300. This decision is based on the administrative record for the Site. The attached index identifies the items that comprise the administrative record upon which the selection of the remedial action is based.

The State of New York has concurred with the selected remedy.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this Record of Decision, may present an imminent and substantial endangerment to public health, welfare, or the environment.

DESCRIPTION OF SELECTED REMEDY

This operable unit represents the first of two planned for the Site. It addresses the treatment of ground water contaminated primarily with heavy metals and volatile organics. The second operable unit will involve the continued study and possible remediation of soils located beneath the building on the Site if the study so indicates. These soils could not be adequately characterized during the first operable unit. The second operable unit will also investigate potential sources of upgradient contamination.

The major components of the selected remedy include:

- Extraction and treatment, via metal precipitation, ion exchange, and activated carbon, of ground water in the Upper Glacial Aquifer to restore the ground water quality to cleanup levels identified in the decision summary; and
- Disposal of treatment residuals at a RCRA subtitle C facility.

Treatability studies will be undertaken to confirm the effectiveness of the selected remedy. If these studies indicate that the ion exchange process used in the selected remedy is ineffective in reducing the chromate ion to the required levels, a contingency remedy, which utilizes a separate precipitation unit for the removal of the chromate ion, will be implemented.

STATUTORY DETERMINATIONS

Both the selected remedy and the contingency remedy are protective of human health and the environment and are cost-effective. The total remedial action, consisting of both this first operable unit and a future second operable unit, when fully completed will comply with Federal and State requirements that are legally applicable or relevant and appropriate. Both the selected remedy and the contingency remedy utilize permanent solutions and alternative treatment technologies to the maximum extent practicable and satisfy the statutory preference for remedies that employ treatment that reduce toxicity, mobility, or volume as a principal element. Due to the existence of an upgradient source area, neither the selected nor the contingency remedy, by itself, will meet chemical-specific ARARs and be capable of restoring the area ground water to applicable ground water quality standards until that upgradient source area is removed. The upgradient source area will be addressed as part of the second operable unit. Although the remedial action selected, the first operable unit, will not meet chemical-specific ARARs, it is only part of a total remedial action that will attain clean-up levels when fully completed. In the event the second operable unit fails to identify or control the source area, a waiver for technical impracticability will be sought.

The need for conducting a five-year review will be evaluated upon completion of the second operable unit.

William J. Muszynski, P.E.
Acting Regional Administrator

Date

DECISION SUMMARY

PREFERRED PLATING CORPORATION

FARMINGDALE, NEW YORK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

NEW YORK

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ATTACHMENTS

SITE LOCATION AND DESCRIPTION

The Preferred Plating Corporation Site (the "Site") is located at 32 Allen Boulevard in Farmingdale, Town of Babylon, Suffolk County, New York. This 0.5-acre Site is situated in a light industrial area approximately 1 mile west of the Nassau-Suffolk County border. Route 110 passes just west of the Site (see Figure 1).

The land to the east and west of the Site is occupied by commercial or light industrial properties. Immediately north of the Site is a large wooded area followed by various industrial facilities further north of that. To the south are a residential community and a U.S. Army facility.

The 1980 census records a population of greater than 10,000 within a 3 mile radius of the Site. The population density in the area is estimated to be 3,000 to 6,000 persons per square mile. All homes and businesses, in the area surrounding the Site, are supplied by two public water companies. Ground water is the source of water supplies for the entire population of both Nassau and Suffolk Counties. All public water supply wells in the Site area draw water from the deeper aquifer, the Magothy Aquifer. The nearest public water supply well fields are located approximately 1 mile east and 1 mile south of the Site.

The nearest body of surface water is an unnamed intermittent tributary of Massapequa Creek which is approximately 6000 feet west of the Site. There is no designated New York State Significant Habitat, agricultural land, nor historic or landmark site directly or potentially affected. There are no endangered species or critical habitats within close proximity of the Site. The Site is located more than 2 miles from a 5-acre coastal wetland and more than 1 mile from a 5-acre fresh-water wetland.

The Site is situated in the south-central glacial outwash plain of Long Island, which constitutes the Upper Glacial Aquifer, estimated to be 90 feet in thickness under the Site. The naturally occurring surface soil is a sandy loam which promotes rapid infiltration to the ground water. On the Site proper and throughout much of the region, soils have been classified as urban. This is primarily due to the development and pavement which promote greater run-off of precipitation. The Upper Glacial Aquifer overlies the Magothy Aquifer and the two may act as distinct aquifers, or as one, depending upon the degree of hydraulic connection between the two. In the Site area, it is believed that the two are not hydraulically connected.

SITE HISTORY AND ENFORCEMENT ACTIVITIES

The Preferred Plating Corporation (PPC) conducted operations beginning in September 1951 through June 1976. The primary activities at the Site were to chemically treat metal parts to increase their corrosion resistance and provide a cohesive base for painting. The plating processes included degreasing, cleaning, and surface finishing of the metal parts. These processes involved the use of various chemicals which resulted in the generation, storage, and disposal of hazardous waste. Untreated waste water was discharged to four concrete leaching pits directly behind the original building.

Ground water contaminated with heavy metals was detected in the Site area by the Suffolk County Department of Health Services (SCDHS) as early as June 1953. SCDHS indicated that the leaching pits on the Site were severely cracked and leaking. Samples taken from the pits showed the major contaminants to be heavy metals. From 1953 to 1976, SCDHS instituted numerous legal actions against PPC in an effort to stop illegal dumping of wastes and to install or upgrade the on-site treatment facility. PPC prepared an engineering report in May 1974 in order to apply for a SPDES permit which was issued in June 1975. PPC chemically treated the waste water in the pits and, allegedly, then had the treated waste water removed. Whether the treated ground water was ever removed has not been confirmed by EPA. The facility was never in full compliance with the terms and conditions outlined in the permit.

In 1976, PPC declared bankruptcy. Since then, several firms have occupied the Site, none conducting similar operations to PPC. In 1982, the original building was extended by 200 feet, thereby burying the concrete leaching pits. Nearly the entire Site is covered either by the one existing building or paved driveways and parking areas.

In September 1984, Woodward-Clyde Consultants, Inc. performed a Phase I-Preliminary Investigation of the Preferred Plating Site for NYSDEC for the purpose of computing a Hazard Ranking System (HRS) score needed to evaluate whether to place the Site on the National Priorities List (NPL). In the Phase I report, an HRS score of 33.76 was documented, thereby enabling the Site to be included on the NPL. On October 15, 1984, (49 FR 1984), the Site was proposed for the NPL and was added with a ranking of 500 on June 10, 1986, (51 FR 21054).

At EPA's direction, a remedial investigation (RI) was initiated in 1987. The RI consisted of a field sampling and analysis program followed by validation and evaluation of the data collected. The field work was initiated in June 1988 and completed in February 1989. The work was conducted by EPA's REM III contractor, Ebasco Services, Inc. The soil sampling program involved the determination of lateral and vertical extents of contamination by obtaining samples from six

on-site monitoring wells, two off-site monitoring well locations, six surface soil locations, and seven angle borings which extended underneath the on-site building overlying the former leaching pits. The groundwater sampling program involved the installation of nine on-site and two off-site monitoring wells. In addition, two storm water run-off samples and two sediment samples were collected from on-site storm sewers.

The potentially responsible parties (PRP's) were notified in writing on February 12, 1988 via a special notice letter and given the opportunity to conduct the RI/FS under EPA supervision. However, none elected to undertake these activities.

In July 1989, Ebasco's remedial investigation (RI) and feasibility study (FS) reports were released to the public along with the Proposed Remedial Action Plan (PRAP) developed by EPA. A 28-day public comment period was provided, ending on August 18, 1989.

COMMUNITY RELATIONS ACTIVITIES

A Community Relations Plan for the Preferred Plating Site was finalized in March 1988. This document lists contacts and interested parties throughout government and the local community. It also establishes communication pathways to ensure timely dissemination of pertinent information. Subsequently, a fact sheet outlining the RI sampling program was distributed in June 1988. The RI/FS and the Proposed Plan were released to the public in July 1989. All of these documents were made available in both the administrative record and two information repositories maintained at the Babylon Town Hall and the West Babylon Library. A public comment period was held from July 19, 1989 to August 18, 1989. In addition, a public meeting was held on August 3, 1989 to present the results of the RI/FS and the preferred alternative as presented in the Proposed Plan for the Site. All comments which were received by EPA prior to the end of the public comment period, including those expressed verbally at the public meeting, are addressed in the Responsiveness Summary which is attached, as Appendix V, to this Record of Decision.

SCOPE AND ROLE OF OPERABLE UNIT ONE WITHIN SITE STRATEGY

The objective of this operable unit is to address the overall groundwater contamination attributable to the Site. The selected remedy will treat ground water until the influent contaminant concentrations equal the upgradient concentrations. When this has been achieved, the saturated soils underlying the Site will have been essentially flushed of any contaminants, thereby resulting in no net contribution of contaminants from the Site to the aquifer below.

The results of the RI failed to detect evidence of soil contamination in any of the samples collected. However, since the downgradient groundwater contaminant concentrations were, on the average, an order of magnitude greater than the upgradient concentrations, a source of contamination is believed to exist in the saturated soils beneath the Site. Due to fluctuating water table levels, the zone of saturated soils beneath the building varies. Directly, the selected remedy will be cleaning the ground water. Indirectly, it will be flushing contaminants out of the saturated soils.

If the source of contamination in those saturated soils could be located and controlled, the restoration time frame for cleaning the ground water would be greatly reduced. Therefore, a second operable unit will be undertaken to more fully characterize and identify any contaminated soils, both saturated and unsaturated, located beneath the building and to investigate potential upgradient sources of contamination.

SUMMARY OF SITE CHARACTERISTICS

The purpose of the RI conducted at the Preferred Plating Site was to identify the nature and extent of contamination in environmental media on-site, including soil, sediment, ground water, and storm water run-off. To accomplish this, two rounds of ground water samples were collected from the nine on-site monitoring wells as well as the two off-site wells. In addition, various soil samples were collected, including samples from seven sub-surface angle borings drilled beneath the building. (See Figure 2 for on-site sample locations). All samples were subjected to complete Target Compound List analyses. The results of the investigation indicate the following:

- Ground water underlying the Site is contaminated with high levels of heavy metals. Low levels of chlorinated hydrocarbons and cyanide were also detected in a few samples. Upgradient ground water also showed high levels of heavy metals, though significantly lower than on-site levels.

- The soils sampled on-site, including those collected from beneath the building, failed to detect any sources of contamination.

Chemical analysis of the 24 groundwater samples collected from the Upper Glacial Aquifer detected concentrations of cadmium, chromium, lead, and nickel above the allowable maximum contaminant levels (MCLs) in numerous samples. The highest value for a contaminant was that of chromium at 5850 ppb. On-site wells, installed downgradient of the former leaching pits, showed the highest levels of contamination. Upgradient wells also showed levels of contamination above allowable MCLs, however, at an order of magnitude lower than

the downgradient wells. Low levels of chlorinated organics, predominantly 1,1,1-trichloroethane; trichloroethylene; 1,2-dichloroethane; 1,1-dichloroethane; and tetrachloroethylene were detected in a few samples. In addition, three samples indicated the presence of cyanide above allowable MCLs. Concentrations for all inorganic and organic contaminants and their frequency of detection are shown in Table 1.

The sub-surface soil analyses collected from both the seven angle borings and the eleven monitoring well borings showed normal background levels for contaminants. Since the downgradient wells have much higher levels of contaminants than the upgradient wells, it is assumed that a source of contamination exists in the saturated soils located beneath the building that was not identified during this investigation. This will attempt to be identified as part of the second operable unit.

Surface soil samples collected from six separate locations indicated contamination to be generally below normal background levels.

Storm water run-off showed no significant contamination. Storm sewer sediments showed the presence of organics currently being used on-site.

DOCUMENTATION OF SIGNIFICANT CHANGES

The Proposed Plan for the Preferred Plating Site was released to the public in July 1989. The Proposed Plan identified Alternative 3 as the preferred remedy and Alternative 2 as the contingency remedy. EPA reviewed all comments submitted during the public comment period. Upon review of these comments, it was determined that no significant changes to the selected remedy, as it was originally identified in the Proposed Plan, were necessary.

SUMMARY OF SITE RISKS

The National Contingency Plan requires that a Risk Assessment (RA) be conducted to document and justify whether an imminent and substantial risk to public health or the environment may exist at a Superfund site. The risk assessment for the Preferred Plating Site is contained in the RI report dated July 1989.

The baseline RA defines the actual and potential risks to human health and the environment from the presence of the hazardous substances on and around the Site if no action is taken. The baseline RA determined that the contaminants in the ground water and the Site soils have no major negative impact on the environment. Since the Site is presently covered by a building and pavement, the only potential pathway with a risk to the public was determined to be ingestion of contaminated ground water. Although the groundwater sampling did indicate high levels of heavy metal contamination, there

is no present direct human exposure to contaminants since the surrounding population is supplied by public water. However, the Upper Glacial Aquifer is classified as IIb, or potential drinking water, and therefore, a potential risk to human health would exist in the event that this aquifer is developed for use. Also, the potential for off-site downward migration of contaminants exists due to a possible connection off-site between the Magothy and Upper Glacial Aquifers.

A comparison of the concentrations of chemicals in the ground water with ARARs indicated that numerous inorganic and organic compounds are in exceedance of those ARARs. Based on this comparison, the inorganics cadmium, chromium, lead, nickel and cyanide were evaluated and modeled in the RA. Although not all of the organic contaminants of concern exceeded ARARs, they were carried through the RA because they are potential carcinogens.

Based on the review of available data, the Site geology and the results of the public health evaluations, a significant non-carcinogenic risk from consumption of the Upper Glacial Aquifer ground water exists at the Preferred Plating Corporation Site. Given the potential risk posed by the contribution of metal contamination by the Site, the following Remedial Objective was developed for the first operable unit (OU I):

- Reduce the groundwater contaminant concentrations in the Upper Glacial Aquifer underlying the Site to upgradient concentrations.

The second operable unit (OU II) will attempt to identify and control the upgradient source area. The selected remedy for OU I is only a portion of a total remedial action, including OU II, and will attain all clean-up levels when fully completed.

The quantitative clean-up levels for remediating the ground water are presented in Table 2. In removing contaminated ground water, any contributing sources of contamination in the saturated soils beneath the building will be indirectly removed.

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this ROD, may present an imminent and substantial endangerment to public health, welfare, or the environment.

DESCRIPTION OF ALTERNATIVES

This section describes the remedial alternatives which were developed, using suitable technologies, to meet the objectives of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300, and the Comprehensive Environmental Response, Compensation, and Liality Act (CERCLA), 42 USC § 9601, et seq. These

alternatives were developed by screening a wide range of technologies for their applicability to site-specific conditions and evaluating them for effectiveness, implementability, and cost.

A comprehensive list of remedial technologies was compiled for remediation of the ground water. These technologies were screened based on the characteristics of the Site. Those technologies which were retained after the preliminary screening process were assembled to form seven groundwater alternatives. The alternatives developed for the Preferred Plating Site are detailed below. The restoration time frames provided below assume that a source of contamination exists in the saturated soils located beneath the building and will continue to exist and contribute to ground water contamination. The findings of the second operable unit may affect the following time frames.

Alternative 1 - No Action

Construction Cost:	$ 12,700
Annual O&M Costs:	$ 11,600
Present Worth Cost:	$ 175,300
Construction Time:	1 month
Restoration Time:	19 years

The no-action alternative is required by the NCP to be considered through the detailed analysis. It provides a baseline for comparison of other alternatives. Under this alternative, a public awareness program will be developed describing the risks associated with the Site. In addition, existing monitoring wells will be used to conduct long-term monitoring of the contaminant concentrations in the Upper Glacial Aquifer underlying the Site until such time that the downgradient contaminant concentration levels reach upgradient levels due to natural attenuation.

Alternative 2 - Pumping/Precipitation of Metals/Activated Carbon/ Reinjection

Construction Cost:	$ 2,286,900
Annual O&M Costs:	$ 1,071,300
Present Worth Cost:	$ 10,899,600
Construction Time:	18 months
Restoration Time:	12 years

This alternative consists of one on-site collection well for the extraction of contaminated ground water to be sent for treatment. Groundwater modelling predicts that the extraction system will capture essentially all the ground water in the Upper Glacial Aquifer over a capture radius of 150 feet by providing a continual flow of 300 gallons per minute to the treatment plant. The influent ground water will enter the treatment plant where it will first go through a 2-stage precipitation and clarification/filtration unit for the

removal of all heavy metals, followed by a carbon adsorption unit for removal of volatile organic compounds. The metals treatment will generate 4, 55-gallon drums of wet cake per day to be ultimately disposed of in a Resource, Conservation and Recovery Act (RCRA) subtitle C facility. The treatment scheme is a proven technology capable of removing the contaminants of concern from the ground water. The ground water pumped from the Site shall be treated to satisfy all federal and state standards for class IIb waters, potential drinking waters, prior to reinjection. The treated ground water will be discharged to a reinjection well installed east of the Site and upgradient of both the extraction well and former leaching pits. In order to evaluate the effectiveness of this remedial action, periodic sampling for metal and volatile organic concentrations in the ground water prior to reinjection will be required.

Alternative 3 - Pumping/Precipitation of Divalent Metals/Activated Carbon/Ion Exchange/Reinjection

Construction Cost:	$ 1,923,900
Annual O&M Costs:	$ 920,900
Present Worth Cost:	$ 9,327,400
Construction Time:	18 months
Restoration Time:	12 years

Under this alternative, the same extraction system is used to withdraw the contaminated ground water as that of Alternative 2. The treatment scheme differs in that only the divalent metals will be treated by a precipitation unit, whereas the chromate ion will be treated with an ion exchange unit. The ion exchange process is a proven technology, however, a treatability study must be performed to demonstrate if the concentrations of chromium can be reduced to the necessary levels. The equipment used in the treatment scheme occupies less space and, therefore, the treatment plant will be smaller than that needed for Alternative 2. The reinjection scheme will be identical to that of Alternative 2.

Alternative 4 - Pumping/Precipitation of Metals/Activated Carbon/ Discharge to Recharge Basin

Construction Costs:	$ 2,547,700
Annual O&M Costs:	$ 1,071,300
Present Worth Cost:	$ 11,160,500
Construction Time:	18 months
Restoration Time:	12 years

The collection and treatment systems in this alternative are both identical to Alternative 2. The discharge system differs in that the treated ground water will be pumped approximately 2,000 feet south of the Site, through an underground pipeline, to a recharge basin.

Alternative 5 - Pumping/Precipitation of Divalent Metals/Activated Carbon/Ion Exchange/Discharge to Recharge Basin

Construction Costs:	$ 2,184,800
Annual O&M Costs:	$ 920,900
Present Worth Cost:	$ 9,588,300
Construction Time:	18 months
Restoration Time:	12 years

The collection and treatment systems in this alternative are both identical to Alternative 3. The discharge system is identical to Alternative 4.

Alternative 6 - Pumping/Precipitation of Metals/Activated Carbon/ Discharge to Surface Water

Construction Costs:	$ 4,333,300
Annual O&M Costs:	$ 1,071,300
Present Worth Cost:	$ 12,946,100
Construction Time:	18 months
Restoration Time:	12 years

This alternative is essentially identical to Alternative 4 except that the treated ground water will be discharged at the headwater of the Amityville Creek, through a 9,000 foot underground pipeline. The concentration levels required for discharge to surface water are lower for certain chemicals than the levels for discharge to ground water. The more stringent surface water discharge limitations are technically impossible to achieve using available technologies.

Alternative 7 - Pumping/Precipitation of Divalent Metals/Activated Carbon/Ion Exchange/Discharge to Surface Water

Construction Costs:	$ 3,970,400
Annual O&M Costs:	$ 920,900
Present Worth Cost:	$ 11,373,900
Construction Time:	18 months
Restoration Time:	12 years

The collection and treatment systems of this alternative are both identical to Alternative 3 and the discharge system is identical to Alternative 6.

SUMMARY OF THE COMPARATIVE ANALYSIS OF ALTERNATIVES

All alternatives were evaluated in detail utilizing nine criteria. These criteria were developed to address the requirements of Section 121 of SARA. The nine criteria are as follows:

Threshold Criteria
- ▲ Overall protection of human health and the environment; and
- ▲ Compliance with applicable or relevant and appropriate requirements.

Primary Balancing Criteria
- ▲ Long-term effectiveness and permanence;
- ▲ Reduction in toxicity, mobility, or volume through treatment;
- ▲ Short-term effectiveness;
- ▲ Implementability; and
- ▲ Cost.

Modifying Criteria
- ▲ State/support agency acceptance; and
- ▲ Community acceptance.

The discussion which follows provides a summary of the relative performance of each alternative with respect to the nine criteria.

Overall Protection of Human Health and the Environment

This criterion addresses whether or not a remedy provides adequate protection and describes how risks are eliminated, reduced or controlled through treatment, engineering controls, or institutional controls.

Protection of human health and the environment is the central mandate of CERCLA. Protection is achieved primarily by taking appropriate action to ensure that there will be no unacceptable risks to human health or the environment through any exposure pathways. No direct risk to human health or the environment presently exists because the ground water in the immediate vicinity of the Site is not currently used as a potable water source.

Alternatives 2 - 7 will require 12 years, while Alternative 1 will require 19 years, to achieve downgradient contaminant concentration levels equal to upgradient levels. When this has been achieved, the saturated soils underlying the Site will have essentially been flushed of any contaminants, thereby resulting in no net contribution of contaminants to the aquifer below. All treatment alternatives, aside from the no-action alternative, will result in permanent protection of the environment and human health through the reduction in toxicity, mobility, and volume of the contaminants.

Compliance with ARARs

This criterion addresses whether or not a remedy will meet all applicable or relevant and appropriate requirements and/or provide grounds for invoking a waiver. ARARs can be chemical-specific, location-specific, or action-specific.

Alternatives 2- 5 achieve ARARs to a similar degree and more so than Alternatives 6 and 7. None of the alternatives will achieve chemical-specific ARARs for ground water rated IIb, potential drinking water, unless off-site upgradient sources are removed. Although the selected remedial action, the first operable unit, will not meet chemical-specific ARARs, it is only part of a total remedial action that will attain such clean-up levels when fully completed. A second operable unit will be conducted in an attempt to identify upgradient sources of contamination. In the event the second operable unit fails to identify or control upgradient sources, a waiver for technical impracticabilty will be sought.

Alternatives 2 - 7 will meet action-specific ARARs. Under alternatives 2 - 5, treated ground water will meet pertinent federal and state ARARs for either reinjection or discharge to the recharge basin. Under Alternatives 6 and 7, ground water will be treated as close as technically possible to the Class C surface water body ambient standards for parameters of concern since it is technically impracticable to meet all of these standards. A technical impracticability waiver would also be needed for discharge to surface waters if Alternatives 6 or 7 were selected.

Reduction of Toxicity, Mobility, or Volume

This evaluation criterion relates to the anticipated performance of a remedial technology, with respect to these parameters, that a remedy may employ.

Alternatives 2 - 7 will control the mobility of the contaminants, contributed by the Site, by extraction within the Upper Glacial Aquifer over a 150-foot radius capture zone. These alternatives will also significantly reduce or eliminate the toxicity and volume of the contaminated ground water by treating to remove metals and volatile organics. Alternative 1 will gradually reduce the toxicity and volume of the contaminated ground water by natural attenuation but will do nothing to prevent the migration of contaminants.

Short-term Effectiveness

This criterion involves the period of time each alternative needs to achieve protection and any adverse impacts on human health and the environment that may be posed during construction and implementation of the alternative.

Alternative 1 will take approximately 1 month to implement and presents no short-term risks to on-site workers or the community. Alternatives 2 - 7 present minimal short-term risks to workers through direct contact pathways and normal construction hazards during remedial action. Each of these alternatives will take approximately 12 years to achieve remediation goals, with their respective construction phases being completed in two years or less.

Long-term Effectiveness and Permanence

This criterion refers to the ability of a remedy to maintain reliable protection of human health and the environment over time, once clean-up levels have been met. It also addresses the magnitude and effectiveness of the measures that may be required to manage the risk posed by treatment residuals and/or untreated wastes.

Alternatives 2 - 7 present no long-term threat to public health because these alternatives are designed to reduce contaminant concentrations in the ground water to levels that are health protective prior to discharge. Alternative 1 may present a long-term risk because it relies on natural attenuation of ground water to reduce contaminant concentrations to action levels.

Implementability

This criterion involves the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement the chosen solution.

Alternative 1 will require a public awareness program and groundwater monitoring which can be easily implemented. Alternatives 2 - 7 may require off-site property procurement for construction of a treatment plant if the plant cannot be placed on-site. Equipment used in the treatment schemes are readily available. The differences in implementability between Alternatives 2 - 7 depend upon the degree of access needed for the discharge system involved in each and the need for treatability studies. Alternatives 2 and 3 will require the installation of one reinjection well which will require property rights for the well placement and a 500 foot underground pipeline. Pipelines, totaling 2,000 feet, needed for discharge to the recharge basin under Alternatives 4 and 5 will be installed beneath public roads. Pipelines, totaling 9,000 feet, needed for discharge to surface water under Alternatives 6 and 7 will be installed beneath both public and private properties.

Alternatives 3, 5, and 7 require a treatability study to ensure the effectiveness of the ion exchange process involved in each and, therefore, their respective implementation time frames are 6 months longer than Alternatives 2, 4, and 6.

Cost

This criterion includes both capital and operation and maintenance (O&M) costs. Cost comparisons are made on the basis of present worth values. Present worth values are equivalent to the amount of money which must be invested to complete a certain alternative at the start of construction to provide for both construction costs and O&M costs over time. Present cost estimates for all of the alternatives are as follows:

Alternative 1:	$ 175,300
Alternative 2:	10,899,600
Alternative 3:	9,327,400
Alternative 4:	11,160,500
Alternative 5:	9,588,300
Alternative 6:	12,946,100
Alternative 7:	11,373,900

Alternative 1, no-action, will be the least costly to implement followed by Alternatives 3, 5, 2, 4, 7, and 6.

State Acceptance

The State of New York, through the New York State Department of Environmental Conservation (NYSDEC), has concurred with EPA's selected remedy and contingency remedy. The NYSDEC letter of concurrence is attached as Appendix IV.

Community Acceptance

No objections from the community were raised regarding the selected remedy or the contingency remedy. Community comments can be reviewed in the August 3, 1989 public meeting transcript, which has been included in the Administrative Record. A responsiveness summary which addresses all comments received during the public comment period is attached as Appendix V.

THE SELECTED REMEDY

Based upon all available data and analyses conducted to date, EPA has selected **Alternative 3: Pumping/Precipitation of Divalent Metals/ Activated Carbon/Ion Exchange/Reinjection** as the most appropriate solution for meeting the goals of this remedial investigation. This alternative does involve a treatability study to ensure that the ion exchange unit can meet all necessary treatment level requirements for the chromate ion. In the event the treatability study indicates that the ion exchange process is ineffective in reducing the chromate ion to the necessary levels, Alternative 2: Pumping/Precipitation of Metals/Activated Carbon/Reinjection will be selected as the contingency remedy.

For both the selected remedy and the contingency remedy, ground water within a capture zone radius of approximately 150 feet will be extracted and treated to remove heavy metals and chlorinated hydrocarbons. The treated ground water will be reinjected to the underlying aquifer, the Upper Glacial Aquifer. The treatment residuals will be disposed of in a RCRA subtitle C facility. The major components of the selected remedy and the contingency remedy are depicted in Figures 3 and 4, respectively.

The purpose of this response action is to control risks posed by the ingestion of contaminated ground water by addressing the following issues:

- The divalent metal concentrations (cadmium, lead, and nickel) will be reduced through a metals precipitation process involving a clarification/filtration unit.
- The chlorinated organic concentrations (1,1,1-trichloroethane, trichloroethylene, 1,2-dichloroethane, 1,1-dichloroethane, and tetrachloroethylene) will be reduced using carbon adsorption.
- The chromate ion will be reduced using an ion exchange process as stated in the selected remedy, or a precipitation process as stated in the contingency remedy.

During the remedial design phase of the project, additional sampling will be conducted to check for any changes in contaminant levels. If this sampling indicates concentrations of cyanide above the allowable state and federal standards, a treatment process for cyanide removal will be added to the selected alternative. This treatment process is known as alkaline chlorination. The process is depicted in Figure 5.

All contaminant concentrations will be reduced until they are equal to or less than their respective federal or state standards prior to reinjection. The treated effluent will be tested to ensure that the treatment system is operating efficiently. Any waste residuals generated by the treatment processes will be disposed of in accordance with applicable disposal standards. Although the remedial action selected, the first operable unit, will not meet chemical-specific ARARs, it is only part of a total remedial action that will attain such cleanup levels when fully completed.

STATUTORY DETERMINATIONS

EPA believes that both the selected remedy as well as the contingency remedy will satisfy the statutory requirements of providing protection of human health and the environment, being cost-effective, utilizing permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable, and satisfying the preference for treatment as a principal element.

Protection of Human Health and the Environment

The selected remedy and the contingency remedy eliminate all outstanding threats posed by the site. Both remove any contribution of contaminants in the saturated zone to the underlying aquifer and reduce contaminant concentration levels in that aquifer to upgradient levels.

Compliance with ARARs

The following ARARs and considerations apply to both the selected remedy and the contingency remedy:

Action-specific ARARs:

- SDWA Maximum Contaminant Levels (40 CFR Part 141), 6 NYCRR Part 703, and 10 NYCRR Part 5 provide standards and goals for toxic compounds for public drinking water systems. The reinjection process for the treated ground water will meet underground injection well regulations by its status as a Superfund remedial action under 40 CFR 147. The extracted ground water will be treated to meet all standards prior to reinjection.

- Spent carbon from the groundwater treatment system for removal of organics will be disposed of off-site, as well as any treatment residuals, consistent with applicable RCRA land disposal restrictions under 40 CFR 268.

Chemical-specific ARARs:

- Since the ground water at the site is classified as IIb, drinking water standards are relevant and appropriate. Again, these include SDWA MCLs, 6 NYCRR Groundwater Quality Regulations and/or limitations of discharges to Class GA waters, and 10 NYCRR Part 5 standards.

Location-specific ARARs:

none

Other Criteria, Advisories, or Guidance To Be Considered:

- NY TOGS 2.1.2 and 1.1.1 provide standards for reinjection of treated ground water and are to be considered.

Neither the selected remedy nor the contingency remedy, by itself, will meet all chemical-specific ARARs and be capable of restoring area ground water to groundwater quality standards until upgradient source areas are removed. The second operable unit will attempt to identify and control the upgradient sources. Although the selected remedial action, the first operable unit, will not meet chemical-specific ARARs, it is only part of a total remedial action that will attain such cleanup levels when fully completed. In the event the second operable unit fails to identify those sources, a waiver of ARARs for technical impracticability will be sought. In this case, treatment of the ground water will continue until the concentration of contaminants in ground water downgradient of the Site is less than or equal to concentrations in ground water upgradient of the Site. At that time, groundwater recovery and treatment will be discontinued even though area ground water may not meet applicable groundwater quality standards.

Cost Effectiveness

The preferred alternative, Alternative 3, provides overall effectiveness proportionate to its cost. It is $1.5 M less costly than the contingency remedy, Alternative 2, and offers comparable performance, requires construction of a smaller treatment plant, and has a lower possibility of initiating secondary pollution problems.

Utilization of Permanent Solutions and Alternative Treatment Technologies or Resource Recovery Technologies to the Maximum Extent Possible

EPA has determined that the selected remedy as well as the contingency remedy represents the maximum extent to which permanent solutions and treatment technologies can be utilized in a cost-effective manner for the Preferred Plating site. The selected remedy represents the best balance of the nine evaluation criteria used to judge all alternatives.

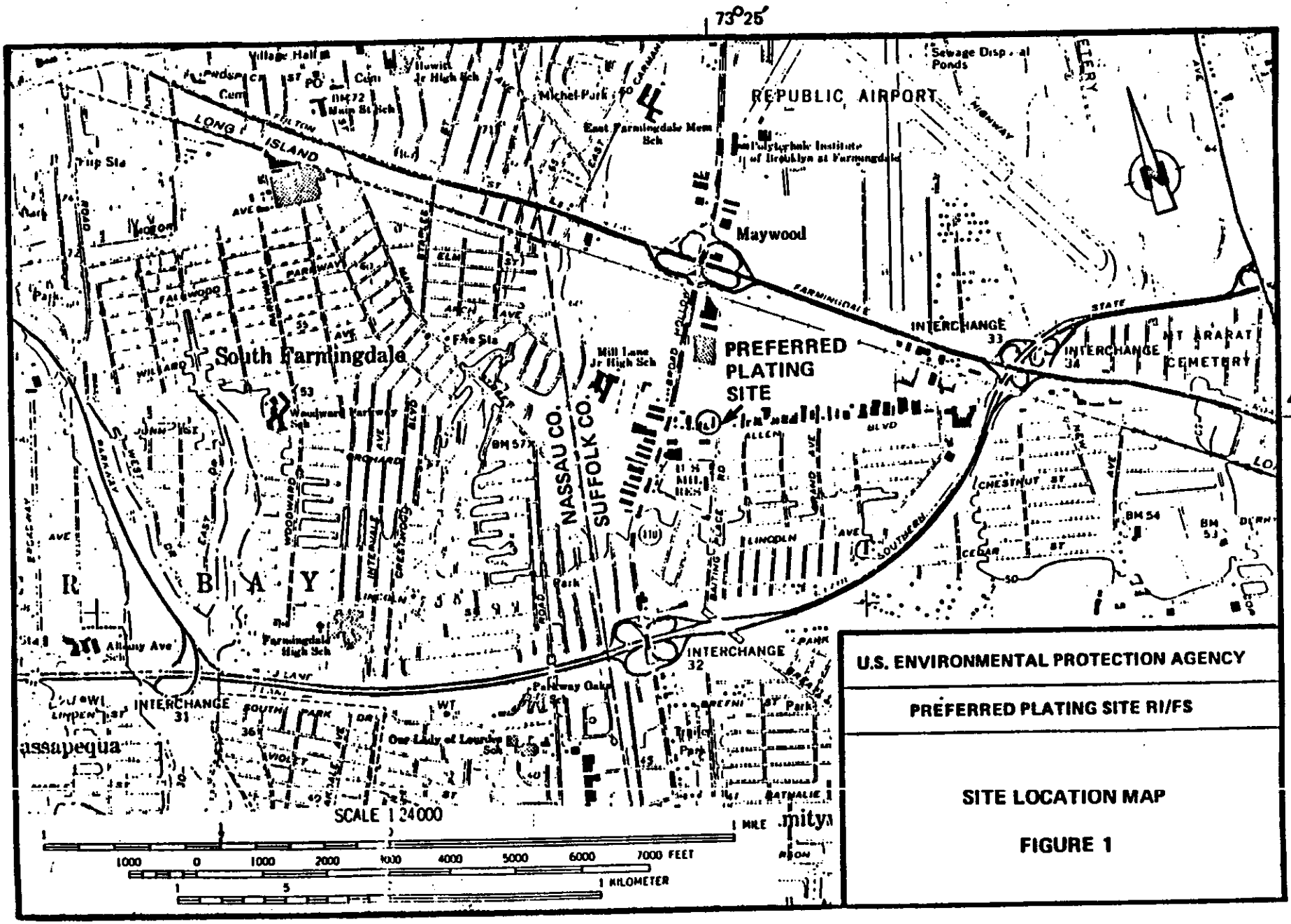
The groundwater treatment used in both the selected and contingency remedies will reduce the contaminants of concern to health protective levels prior to reinjection. After treatment is complete, the site will no longer be contributing contaminants to the underlying aquifer.

Preference for Treatment as a Principal Element

The statutory preference for treatment is satisfied by both the selected remedy and contingency remedy which employ on-site treatment of the ground water through different precipitation technologies and carbon adsorption. These treatment methods effectively reduce the toxicity, mobility, and volume of the contaminants.

APPENDIX I

FIGURES



U.S. ENVIRONMENTAL PROTECTION AGENCY

PREFERRED PLATING SITE RI/FS

SITE LOCATION MAP

FIGURE 1

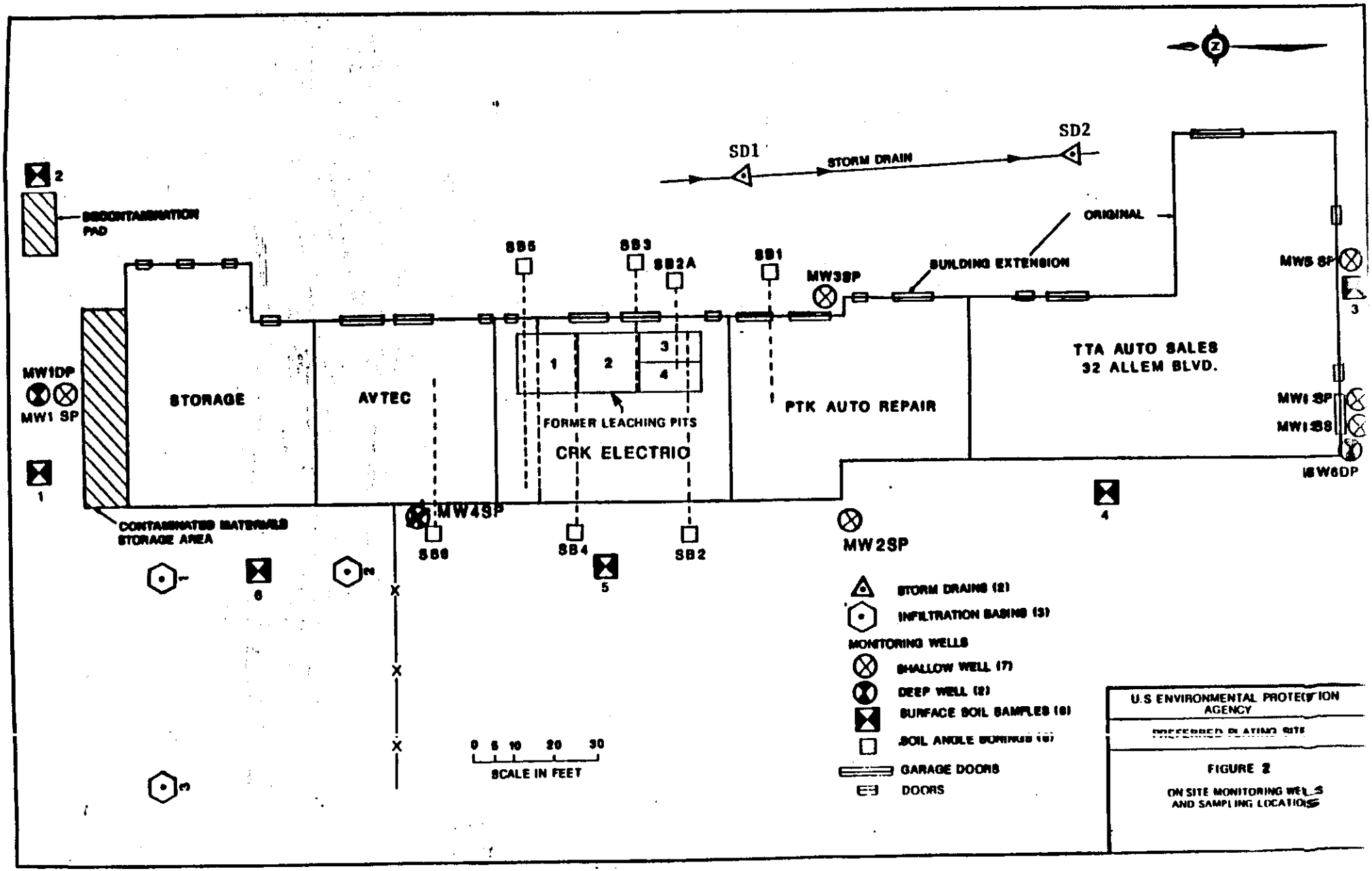

SD1
STORM DRAIN
SD2
ORIGINAL
BUILDING EXTENSION
DECONTAMINATION PAD
SB5
SB3
SB2A
SB1
MW3SP
MW5 SP
TTA AUTO SALES
32 ALLEM BLVD.
MW1DP
MW1 SP
STORAGE
AVTEC
FORMER LEACHING PITS
CRK ELECTRIC
PTK AUTO REPAIR
MW1 SP
MW1SS
MW6DP
CONTAMINATED WATER/OIL STORAGE AREA
MW4SP
SB6
SB4
SB2
MW2SP
SCALE IN FEET
0 5 10 20 30
STORM DRAINS (2)
INFILTRATION BASINS (3)
MONITORING WELLS
SHALLOW WELL (7)
DEEP WELL (2)
SURFACE SOIL SAMPLES (6)
SOIL ANGLE BORINGS (6)
GARAGE DOORS
DOORS
U.S ENVIRONMENTAL PROTECTION AGENCY
FIGURE 2
ON SITE MONITORING WELLS AND SAMPLING LOCATIONS

FIGURE 3

PROCESS FLOW SCHEME FOR ALTERNATIVE 3

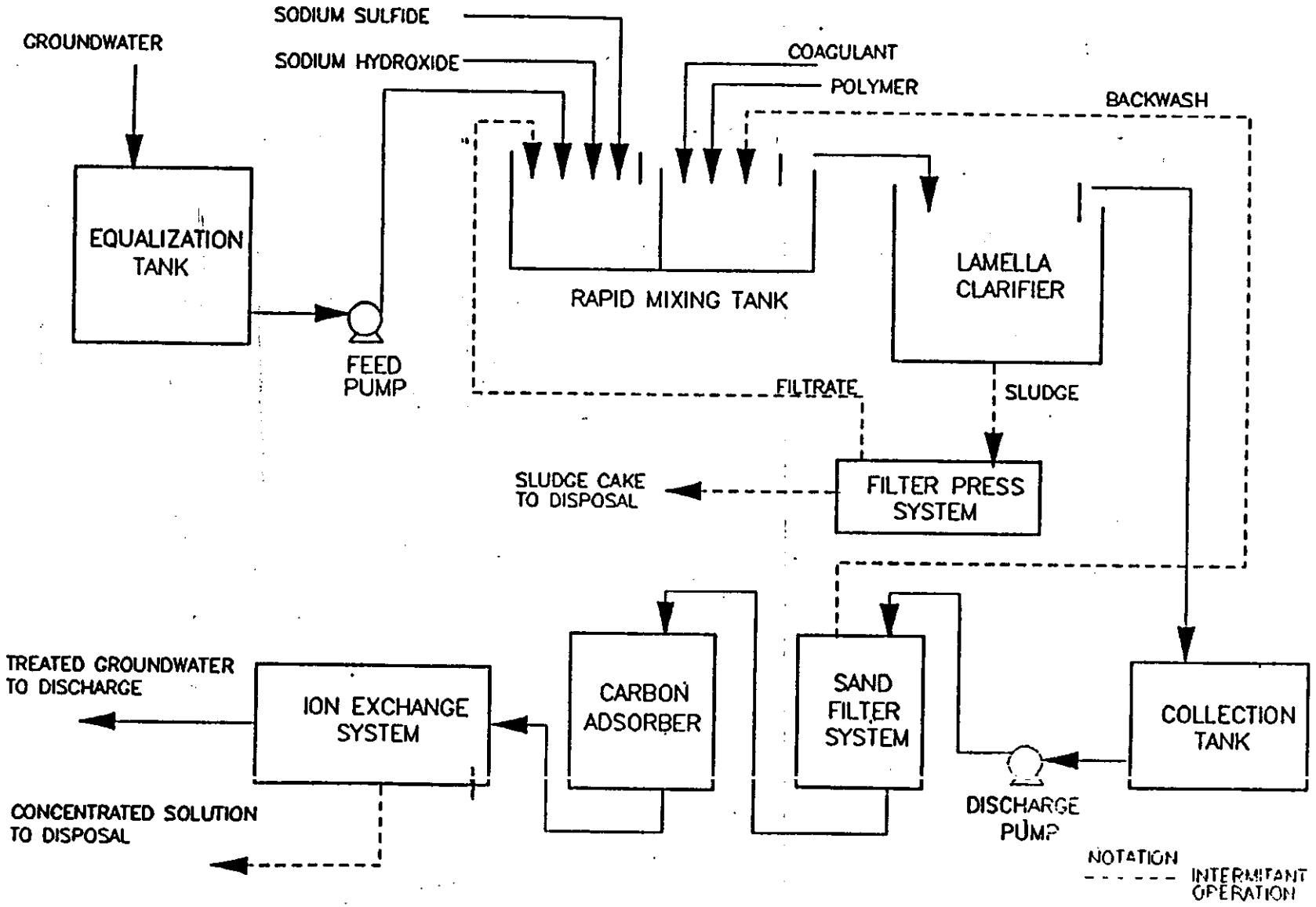


FIGURE 4
PROCESS FLOW SCHEME FOR ALTERNATIVE 2

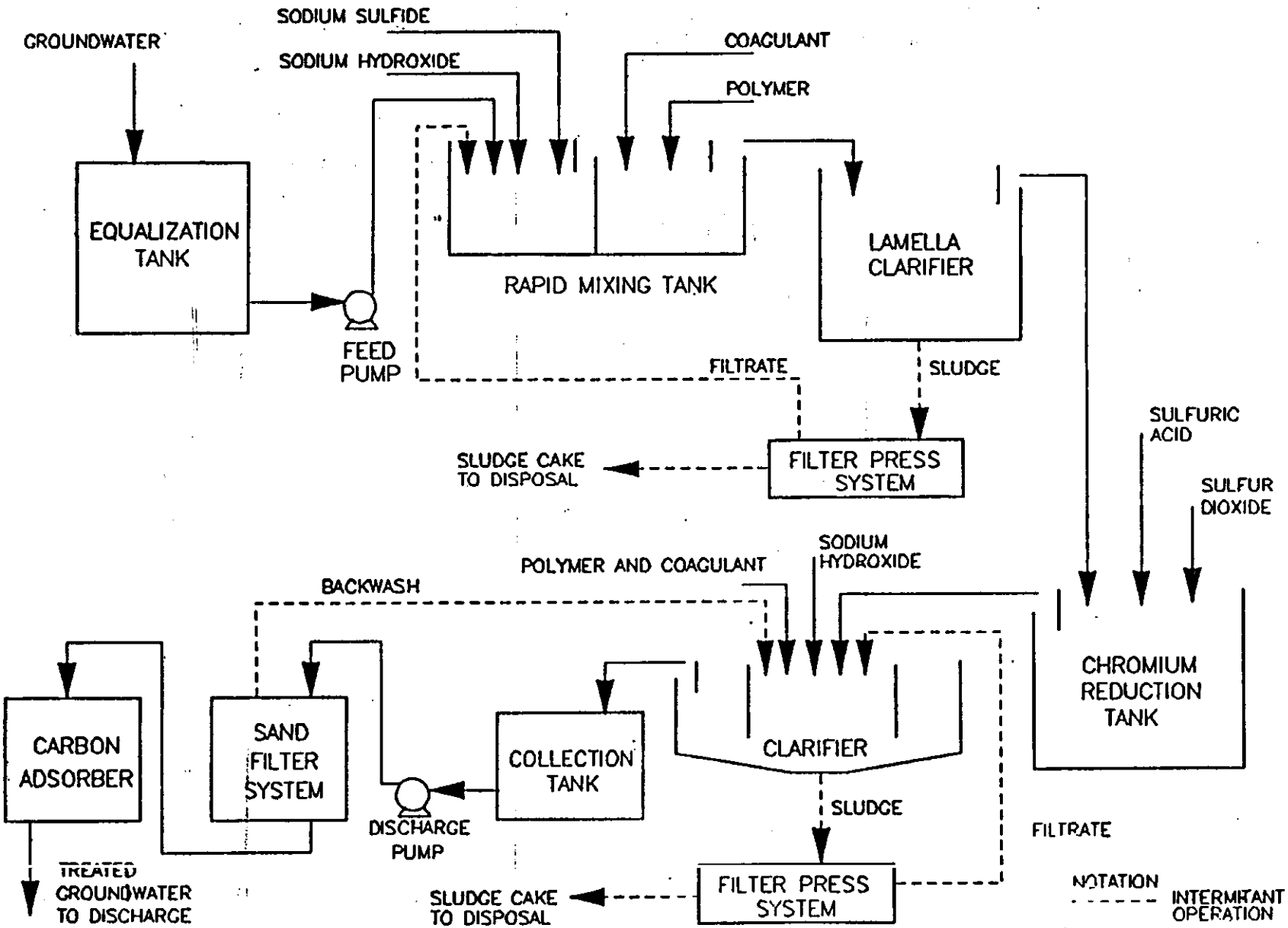
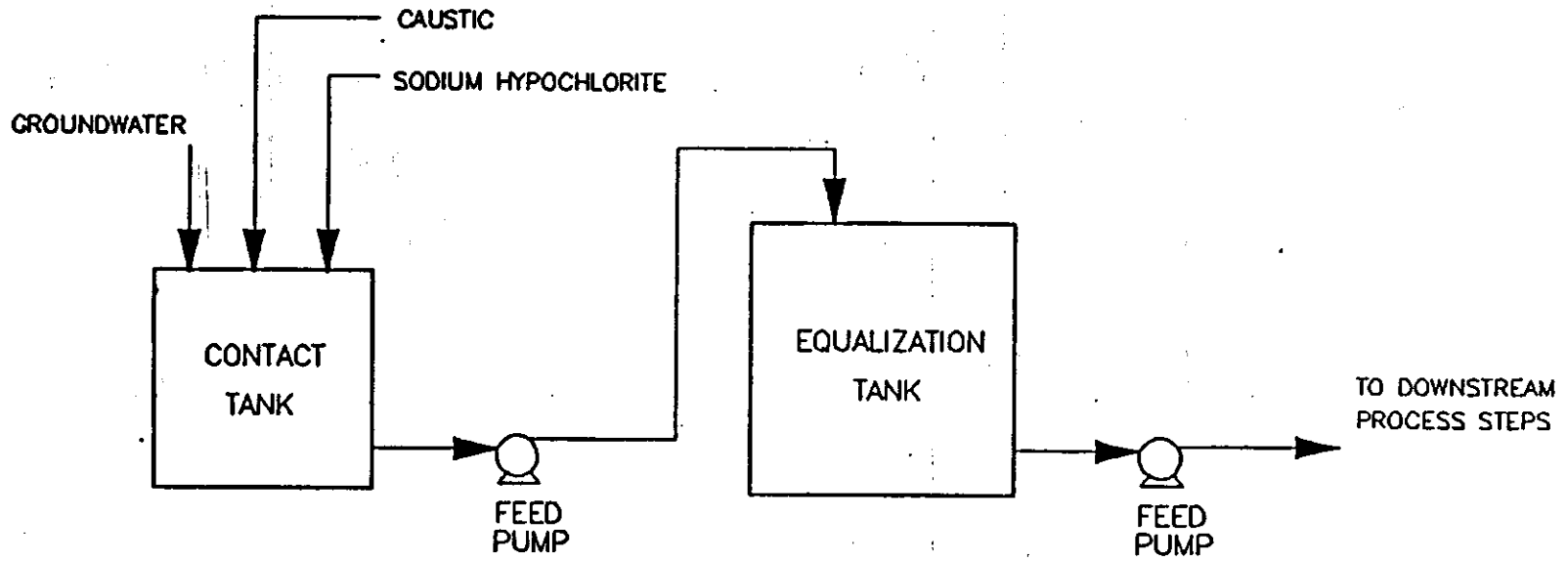


FIGURE 5

PROCESS FLOW SCHEME FOR CYANIDE REMOVAL BY AKLALINE CHLORINATION



COMMENT:

THE CONTACT TANK IS USED FOR THE FIRST-STAGE CHLORINATION, AND THE EQUALIZATION TANK IS USED AS THE SECOND-STAGE CHLORINATION.

APPENDIX II

TABLES

TABLE 1

PRIMARY CONTAMINANTS IN GROUNDWATER
PREFERRED PLATING CORPORATION SITE

Component	Range (ug/l)	Median (ug/l)	Frequency of Detection
Cadmium	8.4-399	79	18/24
Chromium	56.3-5,850	479	23/24
Lead	4.6-437	143.5	22/24
Mercury	0.27-0.40	0.36	7/24
Nickel	39.9-358	212	15/24
Silver	1.1-18.5	12.8	10/24
Zinc	30.3-1,330	573	22/24
Cyanide	10.5-830	82.7	7/24
1,1,1-trichloroethane	2-13	3.3	9/24
Trichloroethylene	1-8	2.8	11/24
1,2-dichloroethane	2-5	2.0	6/24
Benzene	1-12	2.3	4/24
1,1-dichloroethane	1-3	1.2	4/24
Tetrachloroethylene	1-17	1.9	6/24
Toluene	3-11	2.4	3/24

CONTAMINANT	MAXIMUM CONCENTRATION	FEDERAL ARARS			NY AMBIENT WATER QUALITY STANDARDS/GUIDANCE VALUES		
		RCRA MAXIMUM CONCENTRATION LIMIT	SDWA MCL'S	CLEAN WATER ACT WQC	DRINKING WATER	G.W. FOR DRINKING WATER	CLASS "C" SURFACE WATER
Cadmium	399	10	10	10	10	10	1.1
Chromium	5850	50	50	50	50	50	11
Iron	81,000	NC	NC	-	300	300	300
Lead	398	50	50	50	50	25	3.2
Mercury	4	2	2	10	2	-	-
Nickel	358	NC	NC	15.4	NC	NC	95.6
Silver	18.5	50	50	50	50	50	0.1
Zinc	1330	-	-	5,000	-	5,000	30
Cyanide	830	-	-	200	-	200	5.2 [as free cyanide)
Toluene	11	-	-	143	5	50	-
Benzene	12	-	5	40	5	ND	6
1,2-Dichloroethane	5	-	5	243	5	0.8	-
1,1-Dichloroethane	3	-	-	-	5	50	-
Tetrachloroethylne	17	-	-	0.8	5	0.7	1
Trichloroethylne	8	-	-	2.7	5	5	11
1,1,1-Trichloroethane	12	-	-	18.4	5	50	-

Note: The levels which will be obtained for treated water prior to returning it to groundwater or surface water are discussed under action-specific ARARs; however, since the upgradient groundwaters have contaminant levels in excess of these requirements, treatment will stop when on-site groundwater reaches the level of the upgradient waters. To pump and treat the groundwater until such time as it attains these ARAR levels is technologically impracticable and does not properly balance benefits to the public health and the environment with the cost of cleanup and the availability of funds.

Used 100 ppm hardness to calculate Class "C" surface water quality standards.

NC = Not-listed contaminant

APPENDIX III

ADMINSTRATIVE RECORD INDEX

PREFERRED PLATING
ADMINISTRATIVE RECORD FILE*
INDEX OF DOCUMENTS

SITE IDENTIFICATION

Background - RCRA and Other Information

P. 1-23 Report: Application for Waste Disposal Permit, Preliminary Engineering Report, Part I, prepared by Donnelly Engineering Company, 5/74.

Site Investigation Reports

P. 24-183 Report: Engineering Investigations at Inactive Hazardous Waste Sites in the State of New York, Phase I--Preliminary Investigation, Final Report, Preferred Plating Site, prepared by Woodward-Clyde Consultants, Inc., 9/25/84. References are listed on P. 97.

REMEDIAL INVESTIGATION

Sampling and Analysis Plans

P. 184-282 Report: Final Field Operations Plan (FOP) for Remedial Investigation/Feasibility Study, Preferred Plating Corporation Site, Farmingdale, New York, prepared by Ebasco Services, Inc., 1/88.

Work Plans

P. 283-373 Report: Final Work Plan for Remedial Investigation/Feasibility Study, Preferred Plating Corporation Site, Farmingdale, New York, prepared by Ebasco Services, Inc., 1/88.

Remedial Investigation Reports

P. 374-388 Report: Geophysical Investigation for Remedial Investigation/Feasibility Study, Preferred Plating Corporation Site, Farmingdale, New York, prepared by Ebasco Services, Inc., 8/88.

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* Administrative Record File available 8/22/89.

Note: Company or organizational affiliation is mentioned only when it appears in the file.

APPENDIX IV

NYSDEC LETTER OF CONCURRENCE

APPENDIX V

RESPONSIVENESS SUMMARY

EPA WORK ASSIGNMENT NO. 162-2LR4
EPA CONTRACT NO. 68-01-7250

FINAL
RESPONSIVENESS SUMMARY
FOR THE
PREFERRED PLATING CORPORATION SITE
EAST FARMINGDALE, NEW YORK

AUGUST 1989

NOTICE

THE INFORMATION IN THIS DOCUMENT HAS BEEN FUNDED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA) UNDER REM III CONTRACT NUMBER 68-01-7250 TO EBASCO SERVICES INCORPORATED (EBASCO).

PREFERRED PLATING CORPORATION SITE
EAST FARMINGDALE, NEW YORK
FINAL RESPONSIVENESS SUMMARY

The U.S. Environmental Protection Agency (EPA) held a public comment period from July 19, 1989 through August 18, 1989 for interested parties to comment on EPA's final Remedial Investigation/Feasibility Study (RI/FS) and Proposed Remedial Action Plan (PRAP) for the Preferred Plating Corporation site.

EPA held a public meeting on August 3, 1989 at the W.E. Howitt Junior High School on Vancott and Grant Avenues in East Farmingdale, New York to describe the remedial alternatives and present EPA's proposed remedial action plan for cleaning up the Preferred Plating Corporation site.

A responsiveness summary is required by Superfund policy for the purpose of providing EPA and the public with a summary of citizens' comments and concerns about the site, as raised during the public comment period, and EPA's responses to those concerns. All comments summarized in this document will be factored into EPA's final decision for selection of the remedial alternatives for cleanup of the Preferred Plating Corporation site.

I. RESPONSIVENESS SUMMARY OVERVIEW. This section briefly describes the background of the Preferred Plating Corporation site and outlines the proposed remedial alternative for cleaning up the Preferred Plating Corporation site.

II. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS. This section provides a brief history of community interest and concerns regarding the Preferred Plating Corporation site.

III. SUMMARY OF MAJOR QUESTIONS AND COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD AND EPA RESPONSES TO THESE COMMENTS. This section summarizes both oral and written comments submitted to EPA at the public meeting and the public comment period, and provides EPA's responses to these comments.

IV. REMAINING CONCERNS. This section discusses community concerns that EPA should be aware of as they prepare to undertake the remedial designs and remedial actions at the Preferred Plating Corporation site.

V. APPENDICES. There are two appendices attached to this document. They are as follows:

Appendix A: Public meeting agenda from the August 3, 1989 meeting held in East Farmingdale, New York.

Appendix B: Sign-in sheet from the Public Meeting held on August 3, 1989 in East Farmingdale, New York.

I. RESPONSIVENESS SUMMARY OVERVIEW.

The Preferred Plating Corporation (PPC) site is located on Allen Boulevard in East Farmingdale, Town of Babylon, Suffolk County, New York. The site covers approximately 0.5 acres and adjoins other light industrial properties. PPC conducted operations at the site from September 1951 through June 1976. The primary activities at the site were to chemically treat metal parts to increase corrosion resistance, and provide a cohesive base for painting. The plating processes used included degreasing, cleaning, and surface finishing of metal parts. These processes used various chemicals which resulted in the generation, storage, and disposal of hazardous waste. Untreated waste water was discharged to four concrete leaching pits directly behind the original building.

Ground water contaminated with heavy metals was detected in the site area by an investigation conducted by the Suffolk County Department of Health Services (SCDHS) as early as June, 1953. SCDHS indicated that the concrete pits PPC used for disposal of waste water were cracked and severely leaking. Test results from sampling of these pits indicated major contamination of various heavy metals. From 1953 through 1976, SCDHS instituted numerous legal actions against PPC, in an effort to stop illegal dumping of wastes and to upgrade the on-site treatment facility. PPC chemically treated the waste water in the pits, and reportedly had the treated waste water removed. In 1976, PPC had declared bankruptcy. Since then, several firms have occupied the site. In 1982, the original building used by PPC was enlarged, thus burying the concrete pits. Nearly the entire site is covered by the building, paved driveways, and parking areas.

The Preferred Plating site was added to the EPA National Priorities List in June, 1986. At EPA's direction, a Remedial Investigation was conducted by EBASCO Services in 1988. The results of this investigation indicate the following:

- The soils sampled on-site, as well as those collected from beneath the building, show no significant contamination.
- Ground water underlying the site is contaminated with high levels of heavy metals, predominantly cadmium, chromium, lead, and nickel. Low levels of chlorinated organics and cyanide were also detected in a few samples. Upgradient ground water also showed high levels of heavy metals, though significantly lower than on-site levels.

EPA has decided to address the remediation of the site in two operable units based upon the projected overall remedial effectiveness and efficiency. The first operable unit, which is the subject of this Responsiveness Summary, will address the cleanup of the contaminated ground water. The second operable unit will address contaminated soils underneath the building, and any potential upgradient sources which may have contaminated the upgradient wells.

Alternatives presented in this section correspond to the remedial alternatives evaluated in the Feasibility Study report. EPA's evaluation of these alternatives is based on nine criteria. These criteria are: short term effectiveness, long term effectiveness, reduction of toxicity, mobility of volume, implementability, cost, compliance with applicable or relevant and appropriate requirements, overall protection of human health and the environment, state acceptance, and community acceptance.

EPA's Preferred Alternative

EPA's preferred alternative for remediation of the contaminated ground water at the Preferred Plating site is **Alternative 3:** Pumping/Precipitation of Divalent Metals/Ion Exchange/Activated Carbon/Reinjection. Based on current information, this alternative provides the best balance among the aforementioned nine criteria that EPA uses as a means of evaluation. The seven remedial alternatives considered after screening numerous possible alternatives are described below. The seven alternatives evaluated for the first operable unit in the FS are as follows:

Alternative 1
NO ACTION

Construction Costs:	$12,700
Annual Operations and Maintenance (O&M) Costs:	$11,600
Time To Implement:	1 month

This alternative includes the development of a public awareness program describing the risks associated with the site, and uses existing monitoring wells (installed during the Remedial Investigation) to conduct long-term monitoring of the contaminant concentrations in the Upper Glacial Aquifer underlying the site. Under this alternative, ground water use on-site will be restricted.

Alternative 2
PUMPING/PRECIPITATION OF METALS/ACTIVE CARBON/REINJECTION

Construction Costs:	$2,286,900
Annual O&M Costs:	$1,071,300
Time to Implement:	12 years

Alternative 2 consists of one on-site collection well for extraction of contaminated ground water, a two-stage precipitation and clarification/filtration unit for removal of metals, followed by a carbon absorption unit for removal of volatile organics. Groundwater modeling predicts that the extraction system will capture essentially all the ground water in the Upper Glacial Aquifer within a 150 foot radius by providing a continual water flow of 300 gallons per minute to the treatment plant. The metals treatment will generate four, 55-gallon drums of sludge per day to be disposed of in a RCRA Subtitle C facility. The treatment scheme is a proven technology capable of removing the contaminants of concern from the ground water. The treated ground water will be discharged to an injection well, installed upgradient of the site. In order to evaluate the effectiveness of this remedial action, periodic sampling for metal and volatile organic concentrations in the ground water, prior to reinjection, will be required.

Alternative 3
PUMPING/PRECIPITATION OF DIVALENT METALS/ION EXCHANGE/ACTIVATED CARBON/REINJECTION

Construction Costs: $1,923,900
Annual O&M Costs: $920,900
Time to Implement: 12 years

This alternative uses the same extraction system as that of Alternative 2, however, only the divalent metals will be treated by a precipitation and clarification/filtration unit. Chromium will be treated by an ion exchange system, resulting in the generation of additional solids to be disposed of in a RCRA Subtitle C facility. The reinjection scheme will be the same as for Alternative 2.

Alternative 4
PUMPING/PRECIPITATION OF METALS/ACTIVATED CARBON/DISCHARGE TO RECHARGE BASIN
Construction Costs: $2,547,700
Annual O&M Costs: $1,071,300
Time to Implement: 12 years

This alternative is similar to Alternative 2 except that the treated ground water will be pumped approximately 2,000 feet south of the site, through a pipeline to a recharge basin.

Alternative 5
PUMPING/PRECIPITATION OF DIVALENT METALS/ION EXCHANGE/ACTIVATED CARBON/DISCHARGE TO RECHARGE BASIN

Construction Costs: $2,184,800
Annual O&M Costs: $920,900
Time to Implement: 12 years

The collection and treatment systems of this alternative are identical to Alternative 3, and the discharge is identical to Alternative 4.

Alternative 6
PUMPING/PRECIPITATION OF METALS/ACTIVATED CARBON/DISCHARGE TO SURFACE WATER

Construction Costs: $4,333,300
Annual O&M Costs: $1,071,300
Time to Implement 12 years

This alternative is very similar to Alternative 4, except that the treated ground water will be discharged at the headwater of the Amityville Creek, through a 9,000 foot pipeline. The concentration levels required for discharge to surface water are lower for certain metals than the levels for discharge to ground water.

Alternative 7
PUMPING/PRECIPITATION OF DIVALENT METALS/ION EXCHANGE/CARBON ADSORPTION/DISCHARGE TO SURFACE WATER

Construction Costs: $3,970,400
Annual O&M Costs: $920,900
Time to Implement: 12 years

The collection and treatment systems are identical to Alternative 3, and the discharge system is identical to Alternative 6.

II. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS

Overall community concern regarding the Preferred Plating Corporation Site has been low. During previous interviews for the development of the community relations plan contacts with residents, local officials and businesses during the RI/FS expressed these major concerns:

1. Effect on Business Activity

Business representatives were concerned that they may suffer a loss of income as a result of testing and remedial activities conducted at the Preferred Plating Corporation site.

2. Lack of Information on Site Activity

Residents and local officials contacted stressed the importance of comprehensive information from EPA about the Preferred Plating Corporation site. Prior to on-site interviews for the

development of the community relations plan, knowledge of the Preferred Plating Corporation site was minimal among citizens and local officials.

3. Health Effects of Groundwater Contamination

Several residents and businesses expressed concern over the potential human health effects posed by past and future use of drinking water. Although drinking water in the area is supplied by municipal systems, residents expressed concern that contaminants from the Preferred Plating Corporation site will continue to contribute to area-wide groundwater contamination.

III. SUMMARY OF MAJOR QUESTIONS AND COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD AND EPA RESPONSES TO THESE COMMENTS

Comments raised during the public comment period for the Preferred Plating Corporation site are summarized below. The public comment period was held from July 19, 1989 to August 18, 1989 to receive comments on the RI/FS reports and the Proposed Remedial Action Plan. Comments received during the public comment period are summarized below and organized into four categories: Superfund Process, Remedial Investigation Results, Property Concerns and Future Activities.

A. Superfund Process

Comment:

A resident wanted to know how the Preferred Plating Corporation site came to EPA's attention.

EPA Response:

EPA was notified by the New York State Department of Environmental Conservation (NYSDEC) about the Preferred Plating Corporation site. Prior to NYSDEC involvement with this site the local county health department initiated the first investigation at the Preferred Plating facility.

Comment:

A citizen inquired if EPA had enforcement authority to order a responsible party to pay for the cleanup costs of a Superfund Site.

EPA Response:

Through the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) EPA has the enforcement authority to order a responsible party to pay for the cleanup. If the responsible party does not cooperate, EPA may seek a court to order the responsible party to pay for the cleanup.

B. Remedial Investigation Results

Comment:

A resident wanted to know how groundwater contamination from the Preferred Plating Corporation site is differentiated from other local contaminated ground water.

EPA Response:

Test results from the groundwater remedial investigation activities demonstrate that the level of contamination is higher in the downgradient wells then in the upgradient wells. EPA strongly believes that an unidentified contaminant source exits on the site property and accounts for this difference in contamination.

Comment:

A citizen asked if the leaching pits are filled, and what type of material was used for the fill.

EPA Response:

No records exist to determine the type of material used to fill the leaching pits. EPA's planned activities for the second operable unit should provide further information concerning the type of material used for fill in the leaching pits.

Comment:

A resident wanted to know about the treatment of sludge which existed in the leaching pits.

EPA Response:

EPA's investigation indicates that the sludge was treated to federal and state cleanup standards, however no records exist to determine if the sludge is still on-site or if it was removed off-site.

Comment:

A citizen wanted to know how far the contaminated ground water could have traveled from the Preferred Plating Corporation site.

EPA Response:

Based on the hydrogeologic investigation at the site, the ground water in the area is traveling at a velocity of 3.6 feet a day. Over 38 years of operation and disposal at the Preferred Plating Corporation site the ground water may have traveled several miles. However, results from the RI report indicate that no contaminants were detected in offsite wells downgradient of the Preferred Plating Corporation site.

C. Property Concerns

Comment:

Residents wanted to know if there would be restrictions imposed on them if they were to sell their property.

EPA Response:

There would be no restrictions on the property sale, however if the owners were to sell, they must divulge information about the contamination to the buyer prior to the sale and transfer of the property.

Comment:

A citizen inquired about the effects of RI/FS activities on neighboring businesses.

EPA Response:

During the remedial investigation the neighboring businesses were not disturbed by EPA's on-site activities. EPA expects that further remedial investigation activities for operable unit two will also be of minimal inconvenience to neighboring businesses.

D. Future Activities

Comment:

A resident wanted to know if angle soil borings will be in the future remedial investigations at the Preferred Plating Corporation site.

EPA Response:

EPA does not plan to use angle soil borings in subsequent remedial investigations, rather options such as drilling through the concrete floor may be used in future remedial investigations at the Preferred Plating Corporation site.

Comment:

A resident asked about the duration of the treatment process for the contaminated ground water and the location of the treatment plant.

EPA Response:

EPA estimates that the treatment for the contaminated ground water in the area will take twelve (12) years, but if the definite source of groundwater contamination can be identified, the time frame for groundwater remediation would be shortened considerably. EPA has not determined the actual location of the treatment plant at this time. The exact location will be decided by EPA in the Remedial Design Phase.

IV. REMAINING CONCERNS

The current owner expressed concern about the potential difficulties and restrictions of selling the Preferred Plating property.

Appendix A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, NEW YORK 10278

AGENDA
Public Meeting
Preferred Plating Superfund Site
W. E. Howitt Junior High School
Farmingdale, New York

August 3, 1989
7:00 P.M.

I.	Introduction	Cecilia Echols Community Relations Coordinator U.S. EPA, Region 2
II.	Overview of Superfund Activities at Preferred Plating Site	Doug Garbarini Section Chief, Eastern New York and Caribbean Remedial Action Section U.S. EPA, Region 2
III.	Site Background & History Results of the Remedial Investigation/Feasibility Study	Mark Moese Risk Assessment EBASCO Services, Inc. (contractor to EPA)
IV.	Preferred Alternative	Janet Cappelli Remedial Project Manager U.S. EPA, Region 2
V.	Questions and Answers	
VI.	Closing	

Other Representatives

Mathy Stanislaus Site Attorney U.S. EPA, Region 2	Sherrel Henry Enforcement Project Manager U.S. EPA, Region 2

Appendix B

UNITED STATES PROTECTION AGENCY
REGION II
PUBLIC MEETING
FOR
PEFERRED PLATING SUPERFUND SITE

August 3, 1989
ATTENDEES

(Please Print)

NAME	STREET	CITY	ZIP	PHONE	REPRESENTING	MAILING LIST
George Paro	9 4th Street	Farmingdale	11735	293-6499	Self	
Kristen Kaufold	14 Cedar Avenue	FARMINGDALE	11735	293-6571	self	
Bob Kaufold	Town of Babylon			957-308	Town Council	
J o E GAZZI	388 BROADHOLLOW	FARM		MY4-1640	SELF	
Tom Eagley	65 Birch Ave	Farmingdale	11735	249-2569	SELF	
Marsden Chen	50 Wolf Rd	Albany	12233	(518) 457-9113	NYS. DEC	
Cheng Choa	50 wolf Rd.	Albany	12233	(518) 457-9113.	NYS. DEC	
Pat Earley	65 Birch Ave	E. Farmingdale	11735	249-2569		