Department of Environmental Conservation

Division of Environmental Remediation

Record of Decision

Oswego Castings Site
Oswego (C), Oswego County
Site Number 7-38-033

March 1997

New York State Department of Environmental Conservation

GEORGE E. PATAKI, *Governor* JOHN P. CAHILL, *Acting Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

Oswego Castings Inactive Hazardous Waste Site
Oswego, Oswego County, New York
Site No. 7-38-033

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedial action for the Oswego Castings inactive hazardous waste disposal site which was chosen in accordance with the New York State Environmental Conservation Law (ECL). The remedial program selected is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300).

This decision is based upon the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Oswego Castings Inactive Hazardous Waste Site and upon public input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A bibliography of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened release of hazardous waste constituents from this site, if not addressed by implementing the response action selected in this ROD, presents a current or potential threat to public health and the environment.

Description of Selected Remedy

Based upon the results of the Remedial Investigation/Feasibility Study (RI/FS) for the Oswego Castings Site and the criteria identified for evaluation of alternatives, the NYSDEC has selected excavation of contaminated wastes, surface and subsurface soils and wetland sediments with off-site land disposal at a permitted hazardous waste or solid waste landfill, as appropriate. The components of the remedy are as follows:

- Excavation of the following contaminated media:

  a.) Surface soils containing PCBs above 1 ppm. This will consist of the removal of 12 inches of surface soil around the landfill area, approximately 700 cubic yards of soil.

  b.) Surface and subsurface waste containing PCBs above 10 ppm. This will consist of the removal of approximately 2000 cubic yards of core sands and foundry waste.

  c.) Sediment in the wetland and drainage swale containing PCBs above 1 ppm. This will consist of the removal of approximately 1000 cubic yards of contaminated sediments, within the area shown on figure 3 of the ROD.

d.) Approximately 400 cubic yards of material previously excavated as an IRM from the west gate and loading dock areas will be included in the material to be addressed by the remedy.

- Disposal of the excavated materials off-site in permitted landfills. Materials containing PCBs at levels above 10 ppm but less than 50 ppm will be disposed of as non-hazardous material at an off-site industrial waste landfill. This portion of material is estimated to be 1250 cubic yards. Materials containing PCBs at levels greater than or equal to 50 ppm will be disposed of at a permitted hazardous waste landfill, with the volume of this material estimated to be 3600 cubic yards.

- The remaining foundry wastes in the landfill area containing PCBs below 10 ppm, will be consolidated and covered with a 12 inch soil cover and seeded. In addition, excavated surface soils and sediments containing PCBs at levels below 10 ppm will also be consolidated into the foundry waste area prior to placement of the cover.

- Removal and off-site treatment and disposal, as required by appropriate regulations, of the septic tank and sludge with flushing and/or removal of associated piping.

- Groundwater and surface water monitoring for one year (two sampling events) following the completion of remedial construction.

New York State Department of Health Acceptance

The New York State Department of Health concurs with the remedy selected for this site as being protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the statutory preference for remedies that reduce toxicity, mobility, or volume as a principal element.

3/28/97
Date

Michael J. O'Toole, Jr., Director
Division of Environmental Remediation

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RECORD OF DECISION

OSWEGO CASTINGS SITE
Oswego, Oswego County, New York, Site No. 7-38-033

SECTION 1: SITE LOCATION AND DESCRIPTION

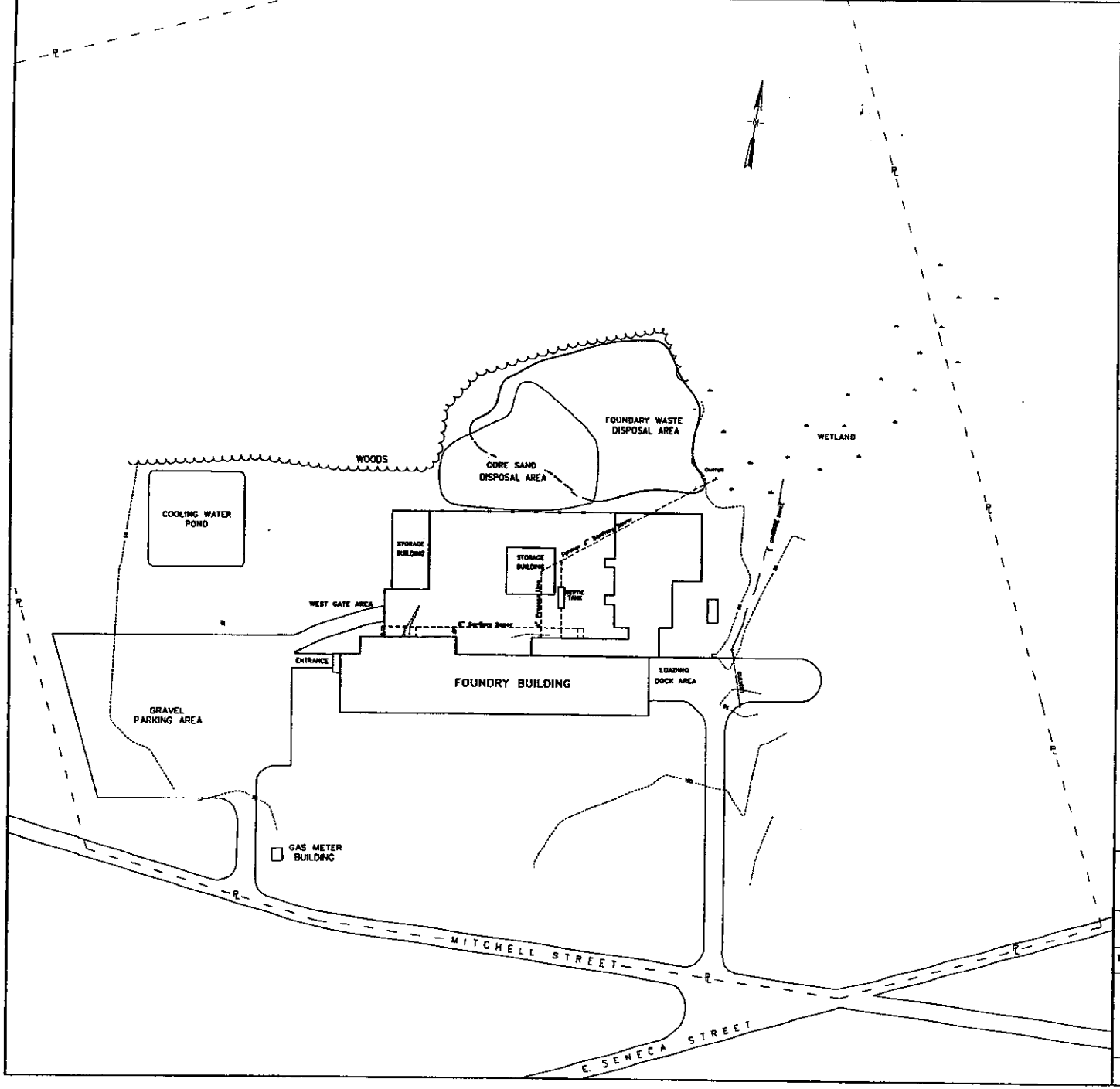
The Oswego Castings Site, Site No. 7-38-033, is located on Mitchell Street in the City of Oswego, Oswego County, New York as shown on Figure 1. The site occupies approximately 10 acres of the 23 acres formerly owned by B&K Metals, Inc. The property includes three former manufacturing buildings: the main foundry building and two smaller outbuildings. The facility's former landfill is located to the north of the buildings. The landfill contains an area of spent core sands, which were part of the casting molds, and an area of miscellaneous foundry waste. The landfill is bounded on the east by a wetland. An abandoned 4 inch diameter pipe, which appears to have discharged process related water, exited from the manufacturing building and discharged into the wetland area. In addition, another line exited the building to an underground septic tank which in turn discharged into the process line to the wetland. The facility's former cooling water pond is located to the west of the developed area. Beyond these areas the site is wooded and historically no manufacturing or disposal operations have been identified. All of these features are also shown on Figure 1.

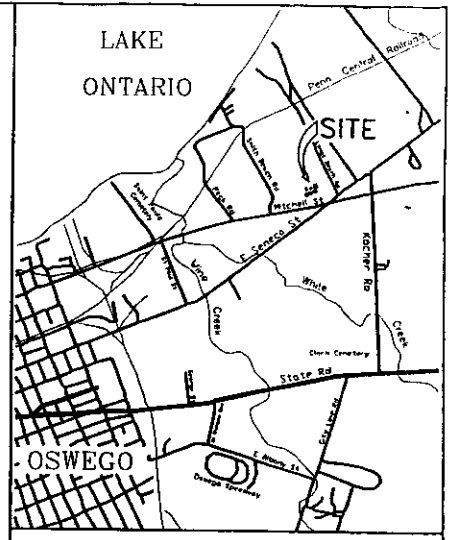
The area surrounding the site is sparsely populated. Residential properties are located to the south across Mitchell Street. NYSDEC regulated wetlands are located north and west of the site. Lake Ontario is located approximately one half mile north of the site. In addition, the Pollution Abatement Services (PAS) site, a class 2 inactive hazardous waste disposal site (Site No. 7-38-001) and the Niagara Mohawk Fire Training School site (Site No. 7-38-030) are both located southwest of the site on East Seneca Street.

SECTION 2: SITE HISTORY

2.1 Operational/Disposal History

Oswego Castings, Inc., a subsidiary of Oberdorfer Foundries, Inc., operated an aluminum die casting facility at the site from 1956 to 1986, after which time foundry operations were discontinued and the equipment removed. During the operation of the foundry, the disposal of core sands and foundry waste occurred behind the manufacturing buildings. In addition, PCBs were present in wastes discharged to the ground surface near the wetland via a process line / septic tank discharge line. PCBs are present in the wastes and in surface soils and sediments on the site above 50 ppm. It is believed that the PCBs were introduced into the process from leaks in hydraulic equipment and from core sand binders or coatings applied to core sand surfaces. Before they were banned in 1977, PCBs were used in high-temperature hydraulic fluids and casting agents because of their desirable heat resistant properties.





FENCE LINE

PROPERTY LINE

UNDERGROUND PIPING

0 40' 80'
SCALE

OSWEGO CASTINGS SITE
Oswego, Oswego County, New York
Site No. 7-38-033

New York State Department of Environmental Conservation

FILE: FS-OCF1.DWG | DRAWING: DRAWN FROM STEARNS AND WHELER BASE MAP

SITE PLAN AND LOCATION MAP

DATE: 2/3/97 | FIGURE 1

2.2 Remedial History

After the facility closed, PCBs were detected at the site during an investigation performed by a prospective purchaser. Preliminary investigations of the facility were then performed by Oberdorfer Foundries starting in June of 1988, which identified the presence of PCBs above the hazardous waste classification of 50 ppm. Based on these investigations, the facility was designated as a Class 2 Inactive Hazardous Waste Site in June of 1989.

SECTION 3: CURRENT STATUS

In response to a determination that the presence of hazardous waste at the Site presents a significant threat to human health and the environment, the PRP and NYSDEC have recently completed a Remedial Investigation/Feasibility Study (RI/FS).

3.1 Summary of the Remedial Investigation

The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The RI was conducted in two phases. The first phase was conducted during the spring of 1994 and the second phase during the summer of 1995. A report entitled *Remedial Investigation: Oswego Castings, Oswego, New York*, dated December 1995, prepared by Stearns and Wheler describes the field activities and findings of the RI in detail.
The RI included the following activities:

- Site survey;
- Soil and waste test pit investigation;
- Sediment sampling;
- Groundwater monitoring;
- Septic tank investigation; and
- Fish and wildlife impact analysis.

To determine which media (soil, groundwater, etc.) contain contamination at levels of concern, the RI analytical data was compared to environmental Standards, Criteria, and Guidance (SCGs). Groundwater, drinking water and surface water SCGs identified for the Oswego Castings site were based on NYSDEC Ambient Water Quality Standards and Guidance Values and Part V of NYS Sanitary Code. NYSDEC TAGM 4046 soil cleanup guidelines for the protection of groundwater, background conditions, and risk-based remediation criteria were used as SCGs for soil and the NYSDEC Technical Guidance for Screening Contaminated Sediments is used for surface water sediments.

Based upon the results of the remedial investigation in comparison to the SCGs and potential public health and environmental exposure routes, certain areas and media of the site require remediation. These are summarized below. More complete information can be found in the RI Report.

Chemical concentrations are reported in parts per billion (ppb) or parts per million (ppm). For comparison purposes, SCGs are given for each medium.

3.1.1 Nature of Contamination:

As described in the RI Report, many soil, waste, groundwater and sediment samples were collected at the Site to characterize the nature and extent of contamination. PCBs were the primary compounds of concern identified in these media and were detected at the highest levels in the core sand waste materials. The PCBs are believed to have been present in hydraulic fluids and casting agents used by the facility, and were released through hydraulic leaks and the disposal of core sands. In addition, volatile organic compounds (VOCs) are present in the septic tank sludge and the groundwater in proximity of the tank. The sample locations and associated PCB concentrations are shown on Figure 2.

3.1.2 Extent of Contamination

Table 1 summarizes the extent of contamination for the contaminants of concern in wastes, soils, sediments and groundwater and compares the data with the proposed remedial action levels (SCGs) for the Site. The following are the media which were investigated and a summary of the findings of the investigation. The estimated areas of impacted soils, sediments and waste are shown on Figure 3.

Waste Materials

Waste materials on the site consists of the core sands and foundry wastes within the landfill. The core sand materials are distinct from the foundry wastes since they are coarser grained and blue-grey to white in color, with two areas which are black and purple in color. The depth of these materials range from 1 foot to 5 feet below ground surface, making up a volume of approximately 1500 cubic yards. The core sand materials contain relatively high levels of PCBs with levels detected from 190 ppm to 1200 ppm. Volatile organic compounds (VOCs) and semiVOCs were also detected in the core sand materials, but at relatively low levels with maximum detections of 0.058 ppm and 2.7 ppm, respectively. Several inorganic constituents were detected above NYSDEC SCGs. These include aluminum (8620 ppm to 223,000 ppm), chromium (23.2 ppm to 30 ppm) and copper (654 ppm to 1660 ppm).

The majority of the landfill, however, consists of miscellaneous foundry wastes. Much of this waste was apparently disposed of prior to the core sands disposal as it is present below the core sand wastes and extends east into the wetland. These materials primarily consist of brown sandy fill with areas of miscellaneous debris, encountered to a maximum depth of approximately 7 feet. The foundry wastes make up a volume of approximately 5600 cubic yards. PCBs are present in this material, but at lower levels than the core sand waste, with levels ranging from <1 ppm to 140 ppm. However, the majority of this material contains PCBs below 1 ppm, with PCBs present at greater than 10 ppm in only about 500 cubic yards. Combining the core sand and foundry wastes, the total volume of landfill materials with PCBs above 10 ppm is approximately 2000 cubic yards, as shown on Figure 3.

Soil

PCBs were also detected in surface soils surrounding the landfill area. Surface soils in this area contain PCBs, from <1 ppm to 800 ppm, with impacted soils extending up to 150 feet from the core sand disposal area. Significant standing and shallow water, which flows during the wet seasons, is present in this area. Therefore, PCB impacts to this area can probably be attributed, at least in part, to surface water runoff carrying sediments from the core sand disposal area.

Two locations in the proximity of the former manufacturing building were also impacted by PCBs: the west gate area and the loading dock area. In the west gate area, PCBs were detected in surface soils from 20 ppm to 740 ppm. In addition, a NYSDEC sample detected PCBs at 1900 ppm in sample SS-217. In the loading dock area, PCBs were detected in surface soils from 0.51 ppm to 20 ppm. Contamination in these areas probably occurred from spills and was limited to surface soils. These two areas were the subject of an IRM, which is discussed in Section 4.2.

Sediments

Elevated levels of PCBs, as related to the NYSDEC Sediment Criteria Guidance, were identified in the sediments in the wetland. Concentrations ranged from 280 ppm, near the process line/septic line outfall, to 0.68 ppm at the furthest downstream sample location about 300 feet from the outfall. Two samples collected near the outfall at a 1 foot depths indicate that PCBs contamination appears limited to surface sediments (0-12"). A small drainage swale runs from the loading dock area into the wetland. PCBs were detected in the drainage swale at concentrations up to 160 ppm. It is estimated that there are a total of 1000 cubic yards of contaminated sediments in the wetland and drainage swale containing PCBs from 1 ppm to 280 ppm, assuming a 1 foot contaminant depth.

Sediments from the cooling water pond located northeast of the main building were sampled in 1988 and in 1990 as part of the pre-RI investigations. In these samples PCB levels range from non-detect to 24 ppm. Two sediment samples were collected during the RI of the pond sediments and pond outlet sediments with PCB detections of 0.61 ppm and 0.14 ppm, respectively. The maximum estimated volume of potentially contaminated pond sediments is 200 cubic yards assuming a 6 inch depth.

Groundwater

Groundwater samples from monitoring wells located within and northeast of the core sand area indicate that the PCBs in soils are migrating to the groundwater. Four wells located in the vicinity of the core sand disposal area contained PCBs above the groundwater standard for PCBs of 0.1 ppb and levels ranged from <0.05 ppb to 4.6 ppb. A single well located in the wetland area down gradient from the outfall contained PCBs at 11 ppb.

Two wells located in the vicinity of the septic tank also show impacts to groundwater. The well down gradient of the tank contained PCBs at 1.2 ppb; the other well, located up gradient of the tank, contained total VOCs up to 217 ppb, but no PCBs.

Native overburden soils on the site are primarily unconsolidated glacial sediments or till. The permeability, or ability to transport water, is low in these materials ($K=6.2 \times 10^{-6}$ cm/sec) and higher in the landfill materials ($K=4.6 \times 10^{-4}$ cm/sec). Groundwater occurs at shallow depths across the site, and was observed to vary from ground surface to 3 to 4 feet deep. Based on groundwater elevation data, the local groundwater flow is from the south and north, with convergence towards the landfill area. From there, discharge is to the east into the wetland, where the ground elevation is about 7 feet lower than the surface of the core sand disposal area.

Surface Water

PCBs were not detected in surface water from the cooling water pond above the detection level of 0.5 ppb, however, this detection level is above the surface water standard of 0.001 ppb. Surface water samples were not collected from the wetland area adjacent to the site because of the lack of sufficient water depth.

Septic Tank

A former process line exits from the main foundry building which formerly discharged into the wetland to the east of the landfill. Another line exits the building into a 3000 gal underground septic tank. The outlet from this tank connected into the process line as it discharged to the wetland. The sludge present in the septic tank was sampled during the RI and contains PCBs at 1700 ppm and total VOCs at 464 ppm.

3.2 Interim Remedial Measures:

Interim Remedial Measures (IRMs) are conducted at sites when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS. An IRM was performed by the former property owner in January of 1997, as a condition of the sale of the property under the voluntary agreement program. For this IRM the impacted surface soils in the loading dock and west gate areas were excavated and stockpiled in the landfill area. These soils will be included in the material to be addressed by this FS. Total volume of these soils is estimated to be 300 cubic yards.

3.3 Summary of Human Exposure Pathways:

This section describes the types of human exposures that may present added health risks to persons at or around the site. An exposure pathway is how an individual may come into contact with a contaminant. The five elements of an exposure pathway are 1) the source of contamination; 2) the environmental media and transport mechanisms; 3) the point of exposure; 4) the route of exposure; and 5) the receptor population. These elements of an exposure pathway may be based on past, present, or future events.

Access to the contamination at the site is unrestricted and the following completed pathways are known to or may exist at the site: (1) Dermal contact, (2) inhalation; or (3) ingestion of contaminants in soils, wastes and sediments by on-site workers or trespassers.

3.4 Summary of Environmental Exposure Pathways:

This section summarizes the types of environmental exposures which may be presented by the site. The Fish and Wildlife Impact Assessment included in the RI presents a more detailed discussion of the potential impacts from the site to fish and wildlife resources. The following pathways for environmental exposure have been identified:

A potential environmental exposure pathway exists for exposure of aquatic biota and wildlife to PCBs associated with the sediments in the wetland and pond and with waste materials and surface soils in the vicinity of the landfill.

SECTION 4: ENFORCEMENT STATUS

The Potential Responsible Parties (PRP) for the site, documented to date, is the former owner and operator of the site, B&K Metals, Inc. (formerly known as Oberdorfer Foundries, Inc.). In July of 1993, B&K Metals entered into an Order on Consent with the NYSDEC for implementation of an RI/FS. The RI was performed on behalf of B&K Metals by Stearns and Wheler from July 1993 to February 1996.

Subsequent to completion of the RI, B&K Metals presented financial evidence that it was a non-operating corporation with limited and diminishing assets, which prevented it from completing its full obligations under the RI/FS order. At the same time, B&K identified to the NYSDEC a potential site purchaser with interest in a purchase of the site under the State's voluntary agreement program. All parties then agreed to perform certain site Interim Remedial Measures from B&K's sale proceeds from the sale of the site to the volunteer. Therefore, in October of 1996, B&K Metals entered into a second Order on Consent with the NYSDEC which terminated its obligations under the RI/FS Order, allowed for the completion of the IRMs, allowed for partial recovery of the NYSDEC's response costs, and released it from further liability for this site. The NYSDEC then assumed responsibility for implementation of the FS, and any remedial design / remedial action necessary for this site, pursuant to a referral to the State Hazardous Waste Remedial Fund.

The following is the chronological enforcement history of this site.

Date	Index No.	Subject of Order
7/19/93	A7-0252-90-12	Implementation of an RI/FS
10/7/96	A7-0346-96-09	Settlement and Remedial Program

SECTION 5: SUMMARY OF THE REMEDIATION GOALS

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375-1.10. The overall remedial goal is to meet all Standards, Criteria, and Guidance (SCGs) and be protective of human health and the environment.

At a minimum, the remedy selected should eliminate or mitigate all significant threats to the public health and to the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles.

The goals selected for this site are:

- Reduce, control, or eliminate to the extent practicable the contamination present within the soils/waste on site and the generation of leachate within the fill mass.

- Eliminate the threat to surface waters and Lake Ontario by eliminating any future contaminated surface run-off from the contaminated soils on site, and by reducing, controlling, or eliminating contaminated wetland sediment migration.

- Eliminate the potential for direct human or animal contact with the contaminated soils on site or sediments.

- Prevent, to the extent possible, migration of contaminants in the landfill to groundwater.

- Provide for attainment of SCGs for groundwater quality at the limits of the area of concern (AOC), to the extent practicable.

The soil cleanup levels to best achieve the goals for this site have been determined to be 10 ppm of PCBs in subsurface soils (greater than 12 inches deep) and 1 ppm in surface soils. This determination is based upon the unrestricted access to the site in its present state and the proximity of the contamination to areas of potential environmental impact. Consideration was given to restricting access to areas of surface soil contamination above 1 ppm by fencing to limit exposure. However, due to the low incremental cost associated with achieving this goal by the alternatives evaluated as compared to fencing, 1 ppm has been established as the surface soil cleanup goal for this site.

SECTION 6: SUMMARY OF THE EVALUATION OF ALTERNATIVES

The selected remedy should be protective of human health and the environment, be cost effective, comply with other statutory laws and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. Potential remedial alternatives for the Oswego Castings site were identified, screened and evaluated in a Feasibility Study. This evaluation is presented in the report entitled *Feasibility Study Report for the Oswego Castings Inactive Hazardous Waste Disposal Site*, February 1997.

A summary of the detailed analysis follows. As used in the following text, the time to implement reflects only the time required to implement the remedy, and does not include the time required to design the remedy or procure contracts for design and construction.

6.1 Description of Alternatives

The potential remedies are intended to address the contaminated soils, sediments, surface water and groundwater at the site. The following alternatives were developed in the feasibility study:

Alternative 1: No Action

The no action alternative is evaluated as a procedural requirement and as a basis for comparison. It requires continued monitoring only, allowing the site to remain in an unremediated state. This alternative would leave the site in its present condition and would not provide any additional protection to human health or the environment.

Alternative 2: On-site Containment with Groundwater Diversion and Leachate Collection and Treatment

Present Worth:	$ 834,000
Capital Cost:	$ 526,000
Annual O&M:	$ 20,010
Time to Implement	6 to 9 months

This alternative would consist of the construction of a low permeability cap over the core sand and foundry wastes, and construction of a hydraulic barrier surrounding the limits of the cap to dewater the impacted material within the area of the cap. The cap would be designed and constructed in compliance with the NYS Part 360 regulations. Impacted sediments and soils beyond the core sand disposal area, which exceed the remedial objectives for PCBs of 1 ppm in surface soils, 10 ppm subsurface soils and established sediment cleanup goals, would be excavated and consolidated into the area to be capped. After excavation these areas would be appropriately restored. Groundwater monitoring would be performed to insure the cap and leachate/groundwater collection systems are working properly. Since hazardous waste would be consolidated and remain contained at the site, the area would be designated a Corrective Action Management Unit (CAMU) and managed accordingly. Long-term operation and maintenance activities would be required to maintain the cap and drains.

The septic tank and associated piping would also be removed as part of this alternative. It is assumed that the sludge would be drummed for transport and treatment at an off-site hazardous waste incineration facility. After the removal of the tank sludge the tank would be excavated and disposed and the excavation would then be backfilled with clean fill/soil.

Alternative 3: On-site Containment with Excavation and Off-site Landfill Disposal of Core Sand Waste

Present Worth:	$ 1,360,000
Capital Cost:	$ 1,053,000
Annual O&M:	$ 20,010
Time to Implement	6 to 9 months

This alternative would consist of excavation of the landfill wastes containing PCBs greater than 50 ppm followed by the transport and off-site disposal of these materials at a Toxic Substances Control Act (TSCA)-permitted hazardous waste landfill. The estimated volume of material for off-site disposal is 2000 cubic yards. The remaining impacted soils and sediments, which would include approximately 1600 cy of material, would be excavated and consolidated in the landfill area. Since these materials would contain PCBs above 50 ppm, this area would be covered with a low permeability cap which would be consistent with Part 360 and equipped with a hydraulic barrier surrounding the limits of the cap, similar to Alternative 2, above. Groundwater monitoring would be performed to insure the cap and leachate/groundwater collection systems are working properly. The capped area would be designated a CAMU and long-term operation and maintenance activities would be required to maintain the cap and drains.

This alternative would also include the removal of the septic tank and associated piping as described in Alternative 2.

Alternative 4: Excavation with Off-site Landfill Disposal

Present Worth:	$ 1,488,000
Capital Cost:	$ 1,485,000
Annual O&M:	$ 2,680
Time to Implement	3 to 6 months

This alternative would consist of excavation of the impacted wastes, soils and wetland sediments followed by the transport and off-site landfill disposal of the material with PCB concentrations greater than 10 ppm. Materials containing PCBs at levels greater than or equal to 50 ppm would be disposed of at a TSCA-permitted hazardous waste landfill. Materials containing PCBs at levels less than 50 ppm, but above 10 ppm, would be disposed of as non-hazardous material at an off-site industrial waste landfill. During the excavation of the landfill wastes, contaminated groundwater which infiltrates into the excavation will be extracted and treated on-site. Confirmatory sampling would be performed at the sides of the excavations to verify remedial boundaries. Surface soils and other materials containing PCB concentrations over 1 ppm, but below 10 ppm, would be consolidated and contoured in the landfill area followed by the placement and grading of a 12 inch topsoil cap with seeding. The other excavated areas would be appropriately restored. Groundwater and surface water monitoring would be conducted for one year following the completion of remedial construction.

This alternative would also include the removal of the septic tank and associated piping as described in Alternative 2.

Alternative 5: Excavation with Off-site Incineration

Present Worth:	$ 9,659,000
Capital Cost:	$ 9,656,000
Annual O&M:	$ 2,680
Time to Implement	3 to 6 months

This alternative would consist of excavation of the impacted soils and sediments followed by the transport of the material with PCB concentrations exceeding 50 ppm off site for treatment at a permitted incineration facility. Materials containing PCBs at levels less than 50 ppm would be disposed of as non-hazardous material at an off-site industrial landfill, rather than incinerated. During the excavation of contaminated material, contaminated groundwater which infiltrates into the excavations will be extracted and treated on-site. Confirmatory sampling would be performed at the sides of the excavations to verify remedial boundaries. Foundry wastes containing PCBs less than 10 ppm would be contoured in place followed by the placement and grading of a 12 inch topsoil cap with seeding. The other excavated areas would then be appropriately restored. Groundwater and surface water monitoring would be conducted for one year following the completion of remedial construction.

This alternative would also include the removal of the septic tank and associated piping as described in Alternative 2.

Alternative 6: Excavation with On-site Low Temperature Thermal (LTTD) Desorption

Present Worth:	$ 3,369,000
Capital Cost:	$ 3,367,000
Annual O&M:	$ 2,680
Time to Implement	9 to 12 months

Soils and sediments containing PCBs above cleanup goals would be excavated and treated on site with a mobile low temperature thermal desorption (LTTD) treatment unit. An estimated 5000 cubic yards of material would be excavated and treated. LTTD utilizes relatively low temperatures to separate organic compounds, including PCBs, from soils. During the excavation of contaminated material, contaminated groundwater which infiltrates into the excavations will be extracted and treated on-site. Confirmatory sampling would be performed at the sides of the excavations to verify remedial boundaries before being backfilled with the treated materials. Foundry wastes containing PCBs less than 10 ppm would be contoured in place followed by placement of the treated soils to act as a cover for these materials. All backfilled areas would then be graded, covered with topsoil and seeded. Groundwater and surface water monitoring would be conducted for one year following the completion of remedial construction.

This alternative would also include the removal of the septic tank and associated piping as described in Alternative 2.

6.2 Evaluation of Remedial Alternatives

The criteria used to compare the potential remedial alternatives are defined in the regulation that directs the remediation of inactive hazardous waste sites in New York State (6NYCRR Part 375). For each of the criteria, a brief description is provided followed by an evaluation of the alternatives against that criterion. A detailed discussion of the evaluation criteria and comparative analysis is contained in the Feasibility Study.

The first two evaluation criteria are termed threshold criteria and must be satisfied in order for an alternative to be considered for selection.

1. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether or not a remedy will meet applicable environmental laws, regulations, standards, and guidance. SCGs for the Oswego Castings site include soil cleanup goals of 1 ppm PCBs for surface soils, 10 ppm PCBs for subsurface soils, and NYS groundwater standards.

All of the alternatives except the no action alternative can be designed to meet SCGs. The no action alternative would leave PCBs in soils and sediments above cleanup levels and the site would continue to impact groundwater standards. The other alternatives would have to be designed to meet TSCA requirements for handling and management of PCB contaminated materials, and other action specific SCGs.

The removal and treatment of groundwater during the excavation of the waste material under Alternatives 3, 4, and 5 would allow the meeting of SCGs as would the containment of the waste under Alternative 2.

2. Protection of Human Health and the Environment. This criterion is an overall evaluation of the health and environmental impacts to assess whether each alternative is protective.

All of the alternatives except the no action alternative would be protective of human health and the environment. No action is not considered to be effective since PCBs would remain on site in their present condition in excess of SCGs.

Of the action alternatives, Alternatives 2 and 3 would be slightly less protective because wastes would remain on site and continued operation and maintenance would be required to insure the cap and collection system remain effective. However, Alternative 3 would be more effective than Alternative 2 since the core sand wastes, which contain the highest PCB concentrations, would be eliminated from the site. Alternatives 4, 5 and 6 are equally protective since contaminated materials would be eliminated from the site.

The next five "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Short-term Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

The no action alternative would not involve any construction activities and, therefore, there would be no increased short-term risks. All of the other alternatives would have potential short-term risks to human health and the environment during the construction due to excavation and handling of contaminated media. However, these risks could be reduced with the use of engineering controls such as dust control measures. These risks would be slightly lower for alternative 2 since containment would involve the least handling of the contaminated materials. Alternatives 3, 4 and 5 would involve the transportation of materials off site which would pose some greater short-term risk from potential spills during transport. However, these risks could be minimized by properly covering the materials during hauling and by establishing emergency spill response measures. Alternative 6 would involve on-site treatment and has slightly greater short-term risk than the other alternatives because of the increased handling and on-site processing of contaminated materials.

4. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the controls intended to limit the risk, and 3) the reliability of these controls.

The no action alternative would not be effective in the long-term because PCBs would remain on site above SCGs. All of the other alternatives would be reliable and effective in the long-term to varying degrees.

Alternative 2 and 3 would be slightly less effective than the other action alternatives because hazardous wastes would remain on site and long-term monitoring and maintenance of the cap and collection systems would be required to insure they remain effective. However, Alternative 3 would be more effective then Alternative 2 since the core sand wastes material, containing the highest levels of PCBs, would be

eliminated from the site. In addition, under these alternatives the landfill area would remain a listed site and would be restricted from future use.

Alternatives 4, 5 and 6 are equally effective over the long-term since contamination above levels of concern would be eliminated from the site through either treatment or removal. Since the contamination would be eliminated from the site, under these alternatives the site could be delisted and the use of the property would be unrestricted.

5. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

The no action alternative would not reduce the toxicity, mobility or volume of contaminants. Alternative 2 would only reduce the mobility of the contamination as contaminants would remain on site, but be contained. Alternative 3 and 4 would reduce the toxicity, mobility and volume of the contamination on site through disposal of materials off site. Alternatives 5 and 6 would be the most effective at reducing the toxicity, mobility and volume, since contamination would be destroyed through treatment by off-site incineration (alternative 5) or on-site separation followed by LTTD (alternative 6).

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction and the ability to monitor the effectiveness of the remedy. For administrative feasibility, the availability of the necessary personnel and material is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, etc..

All of the action alternatives are relatively easy to implement since they involve common construction procedures and the equipment and materials required are readily available. However, the no action alternative would be the easiest alternative to implement since no construction activities would take place. Alternatives 4 and 5 would be the next easiest to implement since they would only involve excavation and transport of the contaminated materials to an off-site landfill or an off-site incineration facility. Alternative 2 and 3 would be more difficult to implement than alternatives 1, 4 and 5 because there would be more construction details and administrative requirements in constructing a containment system. In addition, long term monitoring and maintenance would be required to insure that the effectiveness of these alternatives are maintained. Alternative 6 would be the most difficult to implement because on-site treatment would involve a greater degree of waste handling and processing and the operation of a thermal treatment unit on site.

7. Cost. Capital and operation and maintenance costs are estimated for each alternative and compared on a present worth basis. Although cost is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the remaining criteria, cost effectiveness can be used as the basis for the final decision. The costs for each alternative are presented in Table 2.

The no action alternative would be the lowest in cost since it does not involve any construction or operational costs. The estimated costs for the action alternatives range from $834,000 to $9,659,000. Alternative 2 would be the most cost effective alternative followed by Alternative 3. With Alternative 3, less material would have to be contained on site than with Alternative 2 resulting in lower landfill construction costs. However, this reduction would be more than off-set by the cost for off-site landfill disposal of the core sand wastes. Alternative 4, off-site landfill disposal, would be the next highest in cost

and would be almost double the cost of Alternative 2. Due to the relatively low volume of impacted material, Alternative 6 would not be cost effective for this site. Alternatives 5 would be the least cost effective due to the relatively high off-site incineration price.

Alternatives 2 and 3 would have the highest operation and maintenance costs since an on-site landfill would have to be monitored and maintained indefinitely. Alternatives 4, 5 and 6 would likely have equal maintenance costs since contaminants would be eliminated from the site to the same degree with each of these alternatives. These costs would likely involve only one year of post remedial groundwater monitoring.

This final criterion is considered a modifying criterion and is taken into account after evaluating those above. It is focused upon after public comments on the Proposed Remedial Action Plan have been received.

8. Community Acceptance - Concerns of the community regarding the RI/FS reports and the Proposed Remedial Action Plan have been evaluated. A Responsiveness Summary was prepared that presents public comments received and the Department's responses to the comments raised. The public comments received were supportive of the proposed remedy.

SECTION 7: SUMMARY OF THE PREFERRED REMEDY

Based upon the results of the RI/FS, and the evaluation presented in Section 7, the NYSDEC is selecting **Alternative 4, Excavation with Off-site Land Disposal**, as remedy for this site.

This selection is based upon the evaluation of the six alternatives developed for this site. Alternatives 2 and 3 would be more cost effective than Alternative 4, however, overall these alternatives are not considered to be as effective. With Alternative 2 (on-site containment), waste materials, containing relatively high levels of PCBs, would remain on site. Therefore, operation and maintenance would be required indefinitely to insure that the containment system remains effective. In addition, the landfill would remain a listed site with use restricted. Alternative 3, which involves the removal and off-site land disposal of the higher contaminated waste material, would be more effective than Alternative 2. However, because a portion of the hazardous wastes would also be contained on-site, this alternative would result in similar use restrictions and long-term maintenance requirements as Alternative 2. Alternative 4 will provide maximum protection and will not require any long-term operation and maintenance and associated cost uncertainties. Also, this alternative will allow for the unrestricted use of the property and site delisting. For these reasons, Alternative 4, is considered to provide the best balance of the evaluation criteria.

The no action alternative would not be protective of human health and the environment and would not meet SCGs and, therefore, is not a viable alternative. Alternative 5 (off-site incineration) would be equally protective over the long-term as Alternative 4, however, the high cost for off-site incineration makes this alternative cost prohibitive. Similarly, Alternative 6 (LTTD) would be equally protective, however the higher mobilization and treatment costs associated with the on-site treatment unit, relative to land disposal, are not justified in this case. The removal of waste and the elimination of the septic tank discharge would allow SCGs for groundwater to be achieved for all alternatives.

The estimated present worth cost to implement the proposed remedy is $1,488,000. The cost to construct the remedy is estimated to be $1,485,000 and the estimated annual operation and maintenance cost for a one year period after construction is $2,680.

The elements of the selected remedy are as follows:

1. A remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation and maintenance, and monitoring of the remedial program. Any uncertainties identified during the RI/FS will be resolved.

2. Excavation of the following contaminated media:

   a.) Surface soils containing PCBs above 1 ppm. This will consist of the removal of 12 inches of surface soil around the landfill area, approximately 700 cubic yards of soil.

   b.) Surface and subsurface waste containing PCBs above 10 ppm. This will consist of the removal of approximately 2000 cubic yards of core sands and foundry waste.

   c.) Sediment in the wetland and drainage swale containing PCBs above 1 ppm. This will consist of the removal of approximately 1000 cubic yards of contaminated sediments, within the area shown on figure 3. Additional samples will be collected from the former cooling water pond to evaluate if any remediation of the sediments here will be necessary.

   d.) Approximately 400 cubic yards of material previously excavated as an IRM from the west gate and loading dock areas will be included in the material to be addressed by the remedy.

3. The collection of confirmatory samples to verify that the remedial objectives have been achieved.

4. Disposal of the excavated materials off-site in permitted landfills. Materials containing PCBs at levels above 10 ppm but less than 50 ppm will be disposed of as non-hazardous material at an off-site industrial waste landfill. This portion of material is estimated to be 1250 cubic yards. Materials containing PCBs at levels greater than or equal to 50 ppm will be disposed of at a TSCA-permitted hazardous waste landfill, with the volume of this material estimated to be 3600 cubic yards.

5. The remaining foundry wastes in the landfill area containing PCBs below 10 ppm, will be consolidated and covered with a 12 inch soil cover and seeded. In addition, excavated surface soils and sediments containing PCBs at levels below 10 ppm will also be consolidated into the foundry waste area prior to placement of the cover.

6. Extraction and treatment of contaminated groundwater which infiltrates into the open excavation area during excavation of the landfill wastes and sediments in the wetland. The excavations will be left open, as necessary, to allow sufficient removal of contaminated groundwater before backfilling or recontouring.

7. Restoration of the excavated areas. The wetland will be restored as required, consisting, at a minimum, of grading and seeding. The areas of surface soil excavations will be graded as appropriate.

8. Removal and off-site treatment and disposal, as required by appropriate regulations, of the septic tank and sludge with flushing and/or removal of associated piping.

9. Groundwater and surface water monitoring for one year (two sampling events) following the completion of remedial construction.

10. It is anticipated that the site will be eligible for delisting from the Registry of Hazardous Waste Disposal Sites following one year of monitoring.

SECTION 8: SUMMARY OF CITIZEN PARTICIPATION ACTIVITIES

The following significant public participation activities were conducted for this site:

- Document repositories were established for the site which included the Oswego City Library and the NYSDEC offices in Syracuse and Albany. Site related documents were placed into the document repositories for public review, as they became available.

- A site mailing list was established which included nearby property owners, local political officials, local media and other interested parties.

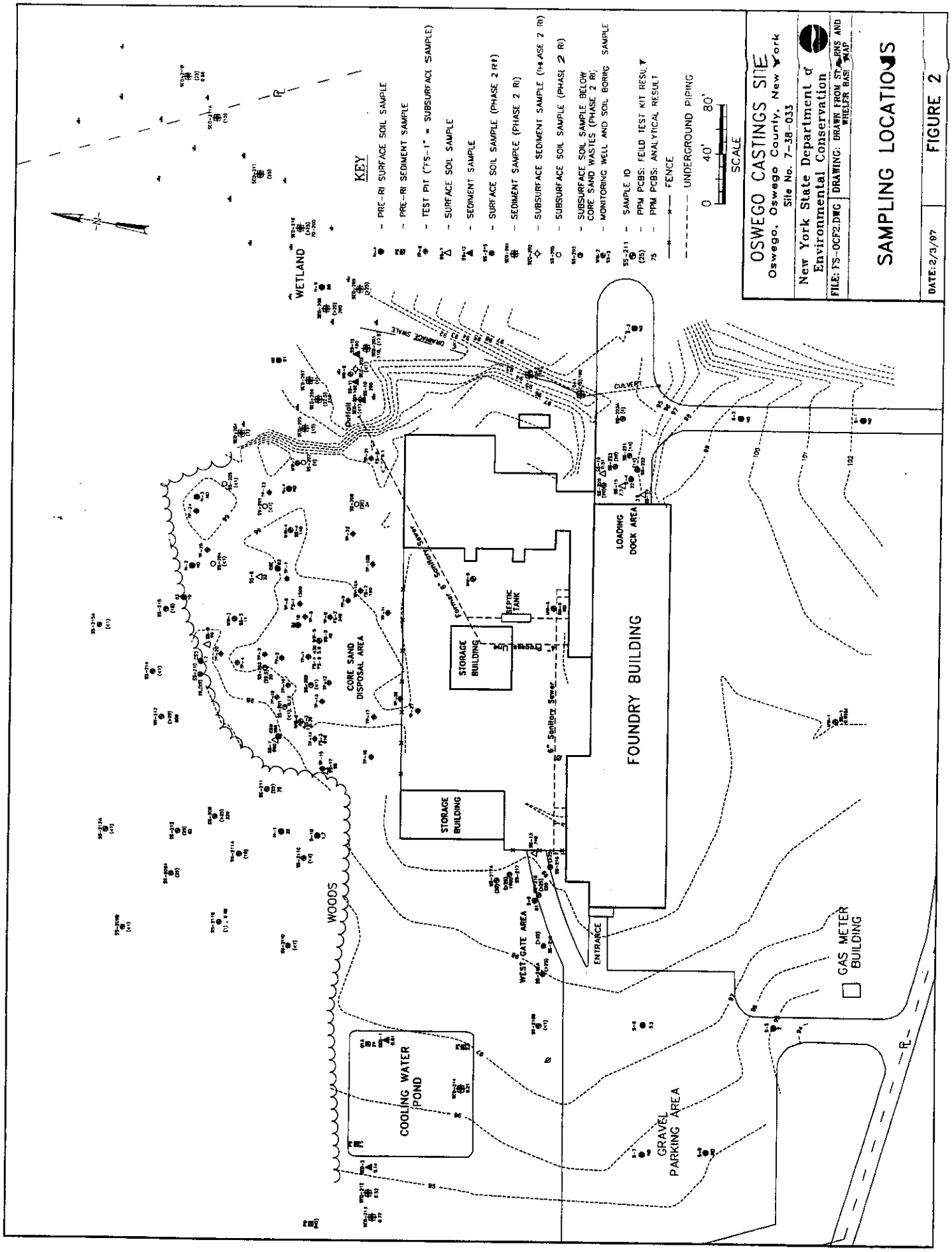
- A fact sheet providing notice of an upcoming soil removal action IRM and summary of the findings of the RI was distributed to the site mailing list in October 1996.

- A fact sheet providing notice of public meeting, a summary the RI/FS and a proposed remedy was distributed to the site mailing list in February 1997.

- A public meeting was held at the Oswego City Hall on February 27, 1997 presenting a summary of the RI/FS and the proposed remedial action plan.

- A public comment period for the proposed remedial action plan from February 13, 1994 to March 14, 1994. No written comments were received before the March 14 deadline.

- A responsiveness summary was prepared in March 1997 responding to the comments raised at the public meeting on the PRAP, and is included as an appendix to this ROD.


KEY
- PRE-RI SURFACE SOIL SAMPLE
- PRE-RI SEDIMENT SAMPLE
- TEST PIT ("TS-1" = SUBSURFACE SAMPLE)
- SURFACE SOIL SAMPLE
- SEDIMENT SAMPLE
- SURFACE SOIL SAMPLE (PHASE 2 RI)
- SEDIMENT SAMPLE (PHASE 2 RI)
- SUBSURFACE SEDIMENT SAMPLE (PHASE 2 RI)
- SUBSURFACE SOIL SAMPLE (PHASE 2 RI)
- SUBSURFACE SOIL SAMPLE BELOW CORE SAND WASTES (PHASE 2 RI)
- MONITORING WELL AND SOIL BORING SAMPLE
- SAMPLE ID
- PPM PCBS: FEILD TEST KIT RESULT
- PPM PCBS: ANALYTICAL RESULT
- FENCE
- UNDERGROUND PIPING
SCALE
0 40' 80'
OSWEGO CASTINGS SITE
Oswego, Oswego County, New York
Site No. 7-38-033
New York State Department of Environmental Conservation
FILE: FS-OCP2.DWG
DRAWING: DRAWN FROM STEARNS AND WHEELER BASE MAP
SAMPLING LOCATIONS
DATE: 2/3/97
FIGURE 2
WETLAND
CULVERT
LOADING DOCK AREA
FOUNDRY BUILDING
STORAGE BUILDING
SEPTIC TANK
CORE SAND DISPOSAL AREA
6" Sanitary Sewer
STORAGE BUILDING
WOODS
WEST GATE AREA
ENTRANCE
GAS METER BUILDING
COOLING WATER POND
GRAVEL PARKING AREA

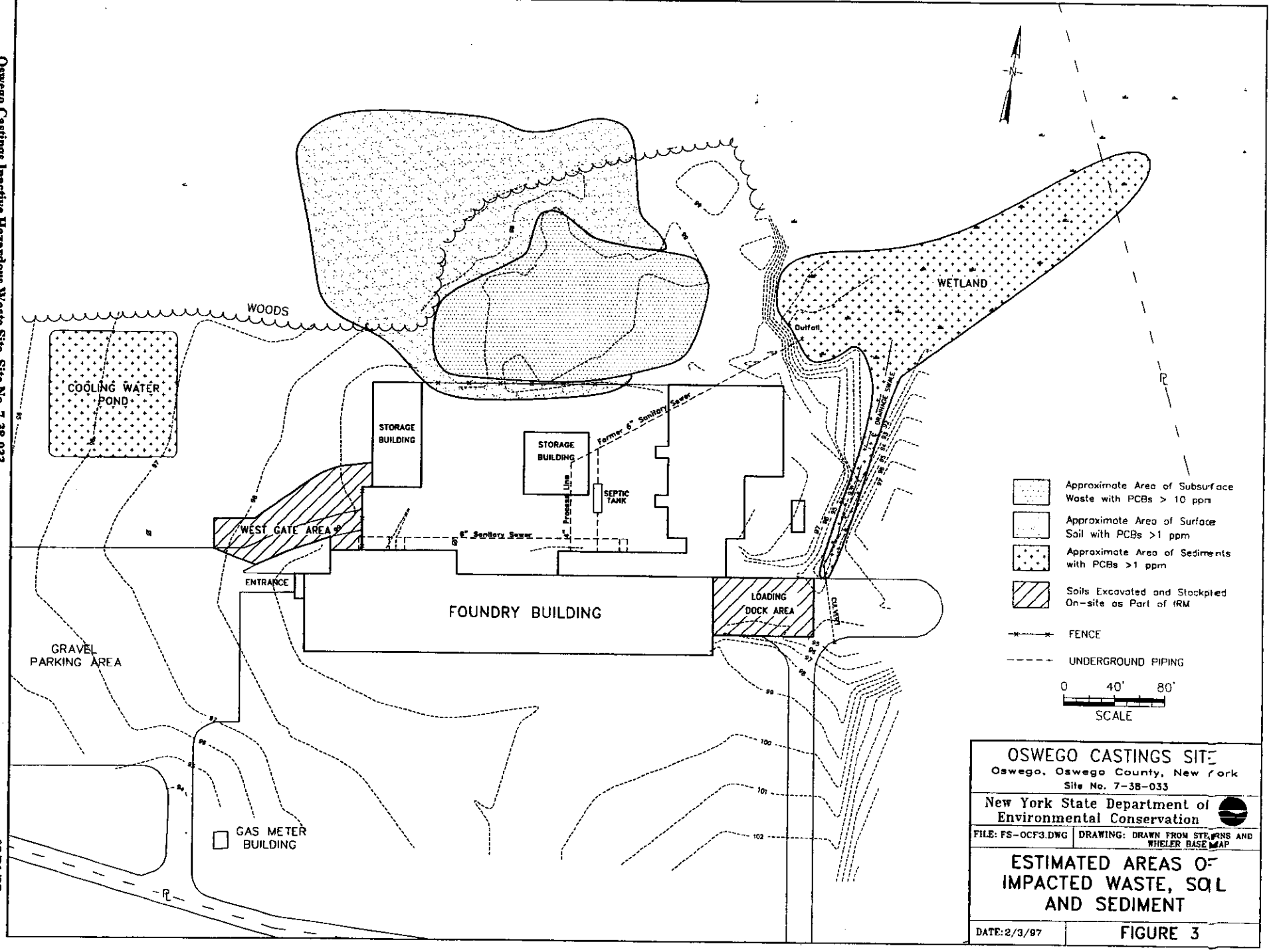

WOODS
COOLING WATER POND
STORAGE BUILDING
STORAGE BUILDING
Former 6" Sanitary Sewer
Process Line
SEPTIC TANK
WEST GATE AREA
6" Sanitary Sewer
ENTRANCE
FOUNDRY BUILDING
LOADING DOCK AREA
CULVERT
WETLAND
Outfall
DRAINAGE SWALE
GRAVEL PARKING AREA
GAS METER BUILDING
Approximate Area of Subsurface Waste with PCBs > 10 ppm
Approximate Area of Surface Soil with PCBs >1 ppm
Approximate Area of Sediments with PCBs >1 ppm
Soils Excavated and Stockpiled On-site as Part of IRM
FENCE
UNDERGROUND PIPING
0 40' 80'
SCALE
OSWEGO CASTINGS SITE
Oswego, Oswego County, New York
Site No. 7-38-033
New York State Department of Environmental Conservation
FILE: FS-OCF3.DWG
DRAWING: DRAWN FROM STEARNS AND WHEELER BASE MAP
ESTIMATED AREAS OF IMPACTED WASTE, SOIL AND SEDIMENT
DATE: 2/3/97
FIGURE 3

Table 1
Summary Table of Analytical Data
Oswego Castings Site

Media	Location	Compound	Concentration Range ppm (* = ppb)	SCG ppm (* = ppb)	Frequency of Exceeding SCGs
Waste/Fill	Core Sands	PCB	190-1200	10	5 of 5
	Foundry Waste	PCB	<1-140	10	7 of 12
Surface Soils	Northeast of Core Sands	PCB	0.68-800	1	9 of 16
	West Gate Area	PCB	<1-740	1	7 of 8
	Loading Dock Area	PCB	0.51-7.7	1	7 of 8
Sediments	Wetland	PCB	0.68-280	0.14	14 of 14
	Pond	PCB	0.21-24	0.14	5 of 5
Sludge	Septic Tank	PCB	230-1700	10	2 of 2
		VOC	464	10	1 of 1
Groundwater	Disposal Area	PCB	0.8-4.6/<0.05-1.4*	0.1*	4 of 4
	Septic Tank Area	PCB	<0.05-1.2*	0.1*	1 of 2
		VOC	1-217*	5*	1 of 2
	Wetland	PCB	11*	0.1*	1 of 1
		VOC	2*	5*	0 of 1

Notes:
1. Data in this table is from the Remedial Investigation except for two of the pond samples which are pre-RI.
2. * indicates value is in ppm; all other values are in ppb.
3. VOC = Total Volatile Organic Compounds.
4. SCGs = Standards, Criteria and Guidance.
5. The SCG for sediments of 0.14 ppm is a preliminary goal from the NYSDEC's Technical Guidance for Screening contaminated Sediments.

Table 2
Oswego Castings Site
Summary of Remedial Alternative Costs

Alternative	Capital Cost	Annual O&M	Total Present Worth
1. No Action	$0	$0	$0
2. On-site Containment	$526,000	$20,010*	$834,000
3. On-site Containment with Off-site Landfill Disposal of Core Sand Waste	$1,053,000	$20,010*	$1,360,000
4. Off-site Landfill Disposal	$1,460,000	$2,680**	$1,463,000
5. Off-site Incineration	$9,399,000	$2,680**	$9,402,000
6. On-site LTTD Treatment	$3,367,000	$2,680**	$3,370,000

* For Alternatives 2 and 3 the annual O&M is over a 30 year period. Present worth based on 5% discount rate.

** For Alternatives 4, 5 and 6 the annual O&M is for a 1 year period.

Appendix A:
RESPONSIVENESS SUMMARY
for the
PROPOSED REMEDIAL ACTION PLAN PUBLIC MEETING
OSWEGO CASTINGS
Inactive Hazardous Waste Disposal Site
Oswego, Oswego County, New York, Site No. 7-38-033
March 1997

The Proposed Remedial Action Plan (PRAP) was prepared by the New York State Department of Environmental Conservation (NYSDEC) and issued to the local document repository on February 13, 1997. This Plan outlined the preferred remedial measures proposed for remediation of the Oswego Castings site. The preferred remedy consists of the excavation of contaminated surface and subsurface soils, sediments and waste materials with off-site land disposal at a permitted hazardous waste or solid waste landfill, as appropriate.

The release of the PRAP was announced via a notice to the mailing list, informing the public of the PRAP's availability, opening of the public comment period and the scheduled public meeting.

A public meeting was held on February 27, 1997 which included a presentation of the PRAP and discussion of the proposed remedy. The following provides a brief summary of the public comments received at the meeting followed by the NYSDEC's response. No written comments were received during the public comment period which closed on March 14, 1997.

The following are the comments received at the public meeting, with the NYSDEC's responses:

COMMENT 1: Who will pay for the Remedial Action?

RESPONSE 1: The Remedial Action will be funded by the New York State Hazardous Waste Remedial Fund (1986 Environmental Quality Bond Act). The sole responsible party for this site, documented to date, is the former owner and operator of the site, B&K Metals, Inc. In July of 1993, B&K Metals entered into an Order on Consent with the NYSDEC for implementation of an RI/FS. Subsequent to the completion of the RI, B&K Metals presented financial evidence to the Department that it was a non-operating corporation with limited and diminishing assets, which prevented it from completing its full obligations under the RI/FS order. At the same time, B&K identified to the NYSDEC a potential site purchaser with interest in a purchase of the site under the State's voluntary agreement program. All parties then agreed to perform certain site Interim Remedial Measures from B&K's sale proceeds from the sale of the site to the volunteer.

In October of 1996, B&K Metals entered into a second Order on Consent with the NYSDEC which terminated its obligations under the RI/FS Order, allowed for the completion of the IRMs, allowed for partial recovery of the NYSDEC's response

costs, and released it from further liability for this site. The NYSDEC then assumed responsibility for implementation of the FS, and any remedial design / remedial action necessary for this site, pursuant to a referral to the State Hazardous Waste Remedial Fund. Included in the most recent consent order is a payment of $100,000 which will be applied to the remediation of this site.

COMMENT 2: Has there been an evaluation of the most economical method of transporting the soil off-site, for example train v.s. truck?

RESPONSE 2:: In this case, transport by truck is more economical than rail transport, since there is no direct access to a rail line. The double handling required to put the material in a truck to take it to a rail line would be more costly. Transport by rail may be economical for sites where there are higher volumes of material and/or when there is direct access to a rail line.

COMMENT 3: How much does it cost to dispose of a cubic yard of material into a secure landfill?

RESPONSE 3: Disposal cost at a hazardous waste landfill is approximately $150 per ton. Assuming a material density of 1.5 cubic yards per ton, this converts to $225 per cubic yard. This value includes a loading and transportation fee of about $30 per cubic yard. These figures are based upon a price quote from Chemical Waste Management Chemical Services, Inc. located in Model City, New York. The disposal cost for non-hazardous material at a solid waste landfill, including transportation, is estimated at $40 per cubic yard.

COMMENT 4: How did you come up with $1.4 million for off-site landfill disposal? This cost seems more than twice as much as it should be. If 5000 cubic yards of material could be transported with 500 truck loads; transport to Buffalo would be at least $300 round trip, this results in $150,000. Adding excavation, I can't come up with more than $400,000 or $500,000.

RESPONSE 4: Of the 5000 cubic yards of material to be disposed in off-site landfills, 3500 cubic yards is estimated to be hazardous material and 1500 cubic yards is estimated to be nonhazardous material. Transport and disposal at a hazardous waste landfill is estimated to be $225 per cubic yard; multiplied by 3500 cubic yards gives almost $800,000. The remaining construction elements including mobilization, excavation and restoration are estimated to cost approximately $300,000. Another $300,000 was added for administration, engineering and contingency. This results in a total price of about $1.4 million. Detailed costs estimates for all of the alternatives evaluated are included in the Feasibility Study Report, which is available for public review at the document repositories. A copy of the estimate for the selected remedy is included as an attachment to this responsiveness summary.

COMMENT 5: Will your remediation plan be performed in stages?

RESPONSE 5: No, we expect the remediation to be constructed start to finish in one construction

season. Since the volume of material is relatively low we estimate that it will take about three or four months to complete.

COMMENT 6: Have you taken core samples in the parking area, under the blacktop behind the foundry building?

RESPONSE 6: One sample was collected under the asphalt near the west gate area which indicated that the contamination in the west gate area does not appear to extend under the asphalt. A test pit was excavated inside the rear fence between the storage buildings. This and other visual observations of this area indicated that the landfill waste materials end before reaching the asphalt. Test pits were also excavated on the east side of the center storage building during exploration of the septic tank discharge line. No waste materials were observed in this area either. Based on this information there is no reason to believe that there is significant contamination present under the asphalt.

COMMENT 7: Has Ron Scrudato's work amounted to anything that can be used to process anything on site?

RESPONSE 7: Ron Scrudato is a professor with the Environmental Research Center (ERC) at the State University in New York (SUNY) at Oswego. The ERC constructed two pilot-scale reactors at the site and performed several pilot tests on the contaminated wastes and soils from the site. The reactors were effective at breaking down the PCBs in the samples, however the technology is still in the developmental stage and at this preliminary point in development is not yet competitive or available as a full-scale process.

COMMENT 8: I am pleased this is being addressed. As you have said, we have a new industry that is coming in there, and for the past several years there has been a stalemate. In fact we lost a Canadian business that was going to go in there. The bottom line is that it is in our economic development zone, it is adjacent to our industrial park. From the standpoint of economic development, I am pleased that there is going to be an action taken on it. I am very pleased that there is going to be a full-pressed action on the part of the New York State Department of Environmental Conservation (NYSDEC) to go into a one-stage remediation to take care of a site that is going to be cleaned up. It's definitely going to be a benefit to the community.

RESPONSE 8: As indicated in the above comment a significant portion of the site is now being used for a commercial endeavor. It is anticipated that once this remediation has been completed the site will be eligible for delisting from the Registry of Inactive Hazardous Waste Disposal Sites which should assist in the further development of all or part of the remaining portion of the parcel.

COMMENT 9: I think this is the best way to go.

Appendix B:

ADMINISTRATIVE RECORD
OSWEGO CASTINGS, SITE NO. 7-38-033

The following documents constitute the Administrative record for the Oswego Castings Site Remedial Investigation / Feasibility Study (RI/FS):

1.) Remedial Investigation / Feasibility Study Work Plan, Oswego Castings Site, Stearns and Wheler, January 1992.

2.) Work Plan: Pilot Program for PCB Remediation of Former Manufacturing Facility, Oswego Castings, Oswego, New York, C & H Engineers, November 5, 1992.

3.) Test Report: Pilot Program for PCB Remediation of Former Manufacturing Facility, Oswego Castings, Oswego, New York, C & H Engineers, February 3, 1993.

4.) New York State Department of Environmental Conservation (NYSDEC) Order on Consent, Index No. A7-0252-90-12. B&K Metals Respondent. July 19, 1993.

5.) Phase II Remedial Investigation Work Plan, Oswego Castings, Oswego, New York, Stearns and Wheler, Revised May 1995.

6.) Report: Remedial Investigation, Oswego Castings, Oswego, New York, Stearns and Wheler, Final Revision December 1995.

7.) Decision Document for Interim Remedial Measure, Oswego Castings Site, Oswego, Oswego County, New York, Site No. 7-38-033, NYSDEC, October 1996.

8.) Work Plan for Partial Remediation: West Gate and Loading Dock Areas, Oswego Castings, City of Oswego, Oswego County, Plumley Engineering, P.C., Revised October 4, 1996.

9.) New York State Department of Environmental Conservation (NYSDEC) Order on Consent, Index No. A7-0346-96-09. B&K Metals Respondent. October 7, 1996.

10.) Letter to Mr. Gary Barnett and Mr. Doug Backus, Great Lakes Veneer, Inc.; Oswego County Industrial Development Agency; Central New York Enterprise Development Fund; and City of Oswego Community Development Office from Michael J. Lesser, Esq., RE: Oswego Castings Inactive Hazardous Waste Site (N.Y.S. # 738033) / Productive Commercial Re-use of the Site, dated November 6, 1996.

11.) Project Summary Report for Partial Remediation: West Gate and Loading Dock Areas, Oswego Castings, City of Oswego, Oswego County, Plumley Engineering, P.C., January 1997.

12.) Feasibility Study Report for the Oswego Castings Inactive Hazardous Waste Disposal Site, Site No. 7-38-033, Oswego, Oswego County, NY, NYSDEC, February 1997.

13.) Proposed Remedial Action Plan, Oswego Castings Site, Oswego, Oswego County, NY, Site No. 7-38-033, NYSDEC, February 1997.

14.) Responsiveness Summary for the Proposed Remedial Action Plan Public Meeting, Oswego Castings Inactive Hazardous Waste Disposal Site, Oswego, Oswego County, New York, Site No. 7-38-033, NYSDEC, March 1997.