Department of Environmental Conservation

Division of Environmental Remediation

Record of Decision

Alcan Sheet and Plate Company Site

Operable Unit No. 1 - North Ponds and Marshes
Operable Unit No. 2 - Main Landfill
Operable Unit No. 3 - South Pond, Marsh and Tributary 63

Town of Scriba, Oswego County, New York

Site Number 7-38-015

March 2006

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* DENISE M. SHEEHAN, *Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

Alcan Sheet and Plate Company Inactive Hazardous Waste Disposal Site
Operable Unit No. 1 - North Ponds and Marshes
Operable Unit No. 2 - Main Landfill
Operable Unit No. 3 - South Pond, Marsh and Tributary 63
Town of Scriba, Oswego County, New York
Site No. 7-38-015

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedy for Operable Unit No. 1, No. 2 and No. 3 of the Alcan Sheet and Plate Company site, a Class 2 inactive hazardous waste disposal site. The selected remedial program was chosen in accordance with the New York State Environmental Conservation Law and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for Operable Unit No. 1, No. 2 and No. 3 of the Alcan Sheet and Plate Company inactive hazardous waste disposal site, and the public's input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A listing 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 releases of hazardous waste constituents from this site, if not addressed by implementing the response action selected in this ROD, presents a current or potential significant threat to public health and/or the environment.

Description of Selected Remedy

Based on the results of the Remedial Investigation and Feasibility Study (RI/FS) for the Alcan Sheet and Plate Company site and the criteria identified for evaluation of alternatives, the NYSDEC has selected a combination of actions, as detailed below:

Operable Unit No. 1 - North Ponds 1 and 2, Marshes 1, 2 and 3, and the Cold Mill Landfill

- Sediments exceeding 1 ppm of PCBs in the North Ponds will be removed and disposed off-site. These excavations will be covered with a minimum one foot of clean substrate.

- Sediments exceeding 1 ppm of PCBs in the Marshes will be removed and disposed off-site. These excavations will be backfilled with clean substrate.

- Soils which exceed 10 ppm of PCBs in upland areas of the North Ponds and Marshes will be removed and disposed off-site. The excavated areas will then be backfilled with a minimum one foot of clean soil

- Upland areas in the North Ponds and Marshes where PCB contamination in soil ranges from 1 to 10 ppm will be covered with one foot of clean soil.

- Soils in the vicinity of the Cold Mill landfill and pump station, which exceed 1 ppm will be excavated to a depth of one foot and backfilled with clean soil to original grades.

Operable Unit No. 2 - Main Landfill

- No further action will be required. Because localized, low-level contamination exists, an environmental easement restricting use of groundwater within the vicinity of the landfill will be necessary.

Operable Unit No. 3 - South Pond, South Marsh, and Tributary 63

- Sediments within the limits of the South Pond, South Marsh and along the main flow path through Segments B and C of Tributary 63, will be excavated to a depth which encounters underlying, uncontaminated native material and disposed off-site. The excavations will then be backfilled with clean substrate.

Common Technical Elements - All Operable Units

- A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program.

- Prior to construction of the remedy, a baseline biota monitoring plan will be developed to document pre-remedial tissue concentrations in aquatic and terrestrial biota in OU-1, OU-3, and Teal Marsh.

- Excavated soils and sediments will be transported for off-site disposal in accordance with applicable rules and regulations. Removal areas will generally be based on the results of the Remedial Investigation sampling, however, in some areas, additional sampling will be necessary during the design to determine excavation limits.

- A habitat restoration plan will be developed and implemented for restoration and/or mitigation of regulated freshwater wetlands disturbed during remediation.

- A site management plan (SMP) will be developed and implemented.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy selected for this site is 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 preference for remedies that reduce toxicity, mobility, or volume as a principal element.

3/31/06

Date

Dale A. Desnoyers, Director
Division of Environmental Remediation

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Town of Scriba, Oswego County, New York
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March 2006

SECTION 1: SUMMARY OF THE RECORD OF DECISION

The New York State Department of Environmental Conservation (NYSDEC), in consultation with the New York State Department of Health (NYSDOH), has selected this remedy for Operable Unit No. 1, No. 2 and No. 3 at the Alcan Sheet and Plate Company Site. The presence of hazardous waste has created significant threats to human health and/or the environment that are addressed by this proposed remedy. As more fully described in Sections 3 and 5 of this document, discharges of contaminated cooling water have resulted in the disposal of hazardous waste, consisting of PCBs. This waste has contaminated the sediments, surface soils, surface water at the site, and fish, and has resulted in:

- a significant threat to human health associated with potential exposure to PCBs.
- a significant environmental threat associated with the impacts of contaminants to biota in the ponds, marshes and Tributary 63.

To eliminate or mitigate these threats, the NYSDEC has selected the following remedies:

Operable Unit No. 1 - North Ponds 1 and 2, Marshes 1, 2 and 3, and the Cold Mill Landfill

- Sediments exceeding 1 ppm of PCBs in the North Ponds will be removed and disposed off-site. These excavations will be covered with one foot of clean substrate, the details of type and depth to be determined in the habitat restoration plan. The design will ensure that the pond side slopes are stable.
- Sediments exceeding 1 ppm of PCBs in the Marshes will be removed and disposed off-site. These excavations will be backfilled with clean substrate, the details of type and depth to be determined in the habitat restoration plan.
- Soils which exceed 10 ppm of PCBs in upland areas of the North Ponds and Marshes will be removed and disposed off-site. The excavated areas will then be backfilled with a minimum one foot of clean soil. In some locations, restoration will require additional clean soil to ensure these areas retain "upland" status.
- Upland areas in the North Ponds and Marshes where PCB contamination in soil ranges from 1 to 10 ppm will be covered with one foot of clean soil.

- Soils in the vicinity of the Cold Mill landfill and pump station, which exceed 1 ppm will be excavated to a depth of one foot and backfilled with clean soil to original grades.

Operable Unit No. 2 - Main Landfill

- No further action will be required. Because localized, low-level contamination exists, an environmental easement restricting use of groundwater within the vicinity of the landfill will be necessary. Also, a Site Management Plan will be developed to address maintenance and monitoring requirements, including a plan to routinely assess groundwater quality and the integrity of the cover system.

Operable Unit No. 3 - South Pond, South Marsh, and Tributary 63

- Sediments within the limits of the South Pond, South Marsh and along the main flow path through Segments B and C of Tributary 63, will be excavated to a depth which encounters underlying, uncontaminated native material and disposed off-site. In addition, any sediments where visual evidence of petroleum globules or sheen is apparent during excavation will be removed and disposed at a permitted facility. The extent of this additional removal will be determined during the remedial action. The excavations will then be backfilled with clean substrate, the type and depth to be determined in the habitat restoration plan.

Common Technical Elements - All Operable Units

- A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program.

- Prior to construction of the remedy, a baseline biota monitoring plan will be developed to document pre-remedial tissue concentrations in aquatic and terrestrial biota including fish and small mammals from OU-1, OU-3, and Teal Marsh.

- Excavated soils and sediments will be transported for off-site disposal in accordance with applicable rules and regulations. Removal areas will generally be based on the results of the Remedial Investigation sampling, however, in some areas, additional sampling will be necessary during the design to determine appropriate depths to achieve remedial objectives. Following removal, documentation samples will be collected from the limits of the excavation areas and submitted for laboratory analysis. Site restoration will occur following review of the laboratory results.

- A habitat restoration plan will be developed and implemented for restoration and/or mitigation of regulated freshwater wetlands disturbed during remediation. The plan will also incorporate requirements for restoration of Tributary 63 and other areas disturbed during remediation. The new wetland boundaries will be delineated and baseline habitat conditions in the wetlands, adjacent areas and Tributary 63 will be documented during design. Implementation of the plan will ensure that the remedy meets the substantive requirements of 6 NYCRR Part 608 Use and Protection of Waters, and 6 NYCRR Part 663 Freshwater

Wetlands Permit Requirements. The plan will include the requirements for appropriate backfill materials; backfill depths; efforts to save mature trees; restoration of Tributary 63 and revegetation of the disturbed areas.

- A site management plan (SMP) will be developed and implemented. The SMP will identify the institutional controls and engineering controls (IC/ECs) required for the remedy and will detail their implementation. The SMP for this remedy will include:

  (a) An IC/EC control plan to establish the controls and procedures necessary to: (i) manage residual contaminated soils that may be excavated from the site during future activities, including procedures for characterization, handling, health and safety of workers and the community as well as, disposal/reuse in accordance with applicable NYSDEC regulations and procedures, (ii) maintain use restrictions regarding site development or groundwater use identified in the environmental easement; and (iii) require the property owner to provide an IC/EC certification, as required by regulations, on a periodic basis;

  (b) A monitoring plan to monitor sediments, surface water, biota and groundwater at the site. This plan will include: (i) a biota monitoring program to assess the effectiveness of the remedy in eliminating or reducing, to the extent practical, the significant threat to fish and wildlife. The monitoring program will include collection and evaluation of tissue samples from aquatic and terrestrial biota, including fish and small mammals, from OU-1, OU-3 and Teal Marsh. Monitoring will begin one year after completion of remedial activities and continue every other year until a five year review of the biota monitoring data can be conducted; (ii) to further assess the detection of bis(2-Ethylhexyl)phthalate in the groundwater, six new overburden wells (four to the west of OU-1, two to the east of OU-2) will be installed to ascertain the origin of this contaminant and to more clearly identify groundwater flow direction; (iii) a groundwater monitoring program will be implemented; and (iv) a surface water monitoring program using large volume surface water samples to determine compliance with the surface water standard for protection of wildlife, and to assess whether the OU1 fish weirs could be removed; and

  (c) Imposition of an institutional control in the form of an environmental easement that will (i) require compliance with the approved site management plan; (ii) limit the use and development of the property to uses consistent with wetland and adjacent industrial use only; (iii) restrict the use of groundwater within the vicinity of the Main Landfill as a source of potable water, without necessary water quality treatment as determined by NYSDOH; and (iv) require the property owner to complete and submit to the NYSDEC a periodic certification.

The selected remedies, discussed in detail in Section 8, are intended to attain the remediation goals identified for this site in Section 6. The remedies must conform with officially promulgated standards and criteria that are directly applicable, or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, criteria and guidance are hereafter called SCGs.

SECTION 2: SITE LOCATION AND DESCRIPTION

The Alcan Sheet and Plate Company site is located approximately 4 miles east of the City of Oswego on Lake Road North (County Route 1A) in the Town of Scriba, Oswego County, New York (see Figure 1). The Alcan Oswego Works Facility, which occupies the site, is situated on an approximately 506-acre parcel owned by Alcan (now known as Novelis Corporation). This property is bordered by Lake Road North and North Road to the south/southeast, undeveloped and partially developed lands to the west, and Lake Ontario to the north/northwest. The Sithe Energies, Inc. cogeneration plant, known as the Independence Station, borders Alcan's property to the northeast (see Figure 2).

North of the operating facility are two ponds (North Ponds 1 and 2) and three marshes (Marshes 1, 2 and 3) used at various times as retention areas to lower the temperature of Alcan's process cooling water before it was discharged into Lake Ontario. Near the site's southern boundary is another pond (South Pond) and a small marsh (South Marsh). Along the southern and western boundary, is a small stream (Tributary 63). Downstream of Tributary 63 is Teal Marsh, an off-site wetland area that receives surface water drainage from the tributary and discharges to Lake Ontario.

The Cold Mill Landfill, a small construction and demolition debris landfill associated with the construction of the facility's Cold Mill, is located to the south of North Pond 2. Another landfill, the approximately 10-acre Main Landfill, is situated east of North Pond 1. This landfill was used by Alcan from 1963-1978 for the disposal of office trash, wooden pallets and construction debris.

An operable unit represents a portion of the site remedy that for technical or administrative reasons can be addressed separately to eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination. This site has been divided into three operable units:

- **Operable Unit No. 1 (OU-1)** consists of all elements of the cooling treatment system (North Ponds 1 and 2, and Marshes 1, 2 and 3) plus the Cold Mill Landfill. This area occupies approximately 21 acres and is predominantly mapped as a state regulated wetland) OE-58.

- **Operable Unit No. 2 (OU-2)** consists of the Main Landfill. The landfill occupies approximately 10 acres.

- **Operable Unit No. 3 (OU-3)** consists of the South Pond (7,500 sq. ft.), South Marsh (30,000 sq. ft.), and Tributary 63 (approximately 4,500 linear feet), most of which is part of a state regulated wetland OE-27.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

The manufacturing processes at the facility currently uses approximately 10 million gallons per day (mgd) of cooling water. Water is drawn from Lake Ontario through a submerged intake structure. From 1968 to 2002, the ponds and marshes of OU-1 were utilized as a once-through cooling water treatment system. The cooling water was used in various contact and non-contact cooling processes

through the facility prior to being discharged. These areas provided treatment of the cooling water through oxidation, settling of entrained solids, and natural cooling prior to discharge into Lake Ontario under a State Pollutant Discharge Elimination System (SPDES) Permit. This area was designed to provide a long residence time and slow flow rates. Settleable solids were separated out from the water throughout the approximately one-half mile flow path. In mid 2002, Alcan ceased using these ponds and marshes, now using a cooling tower and a recirculation system to treat their process cooling water.

During the late 1960's and early 1970's, PCBs were incidentally discharged into the North Ponds 1 and 2 and Marshes 1, 2, and 3. Discharge of cooling water into Marsh 3 ceased sometime in the 1970's. In the South Pond and Tributary 63 (OU-3), only non-contact water had been discharged by Alcan. PCB contamination has been documented, however, it is unknown when and how the PCBs were released into the South Pond, South Marsh, Tributary 63. Currently, a fish consumption advisory exists for Lake Ontario advising the public to limit consumption of certain species due to PCB contamination.

The Main Landfill (OU-2) was operated from 1963-1978, receiving approximately 80,000 cubic yards of office trash, wooden pallets and construction debris. Around 1970, small quantities of rags and absorbent materials containing minor amounts of PCBs from a transformer leak were reportedly disposed of in the Main Landfill.

3.2: Remedial History

In June 1980, PCBs were first detected in Alcan's process water discharge. A sampling program and file search determined that fire resistant hydraulic fluids containing PCBs were the source of the contamination.

After the detection of PCBs in the process water, several physical modifications to the ponds and marshes, and changes to the cooling water flow path were implemented during the operational history of the OU-1 treatment system. Modifications to ponds and wetlands that were implemented in 1980 include the installation a fish weir at the discharge point from Marsh 2, the discharge from the northwest corner of North Pond 2 was eliminated, and the reinforcement of the berm between North Pond 2 and Lake Ontario.

In December 1983, the NYSDEC listed the Alcan Sheet and Plate Company Site as a Class 2a site in the Registry of Inactive Hazardous Waste Disposal Sites in New York (the Registry). Class 2a is a temporary classification assigned to a site that has inadequate and/or insufficient data for inclusion in any of the other classifications.

In 1989, NYSDEC completed a Phase I Preliminary Site Assessment Report and, in December 1990, a Phase II Preliminary Site Assessment Report. In 1997, Alcan issued the North Ponds Investigation Report which reported sediment, surface soil, groundwater, surface water, and biota sampling results showing significant widespread PCB contamination in the sediments and fish in OU-1. Following the 1997 site investigation and risk assessment, a fence was constructed to prevent public access to OU-1.

Based on the above information, in August 1998, the site was listed on the Registry as a Class 2 site. A Class 2 site is defined as a site which poses a significant threat to human health and/or the environment.

SECTION 4: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The NYSDEC and the Alcan Aluminum Corporation entered into a Consent Order on October 7, 2000. The Order obligates the responsible parties to implement a Focused RI/FS remedial program. After the remedy is selected, the NYSDEC will approach the PRPs to implement the selected remedies under an Order on Consent.

SECTION 5: SITE CONTAMINATION

A remedial investigation/feasibility study (RI/FS) has been conducted to evaluate the alternatives for addressing the significant threats to human health and the environment.

5.1: 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 Focused RI was conducted between 2002 and 2004. The field activities and findings of the investigation are described in the RI report.

The following activities were conducted during the RI:

- Research of historical information;
- Geophysical survey to determine depth to bedrock;
- Installation of 5 soil borings and 5 monitoring wells for analysis of soils and groundwater as well as physical properties of soil and hydrogeologic conditions;
- Sampling of 14 new and existing monitoring wells;
- An assessment of public and private water supply wells in the area around the site;
- Collection of 4 surface water samples from OU-3;
- Collection of 128 aquatic sediment samples;
- Collection of 25 surface soil samples;
- The thickness of the soil cover of the landfill was measured at 33 locations;

- Collection of biota samples consisting of 60 fish samples for tissue analysis.

In previous investigations from 1980 to 1997, summarized in the November 17, 1997 North Ponds Investigation Report, the following activities where undertaken which provided the basis for developing the Focused RI:

- Collection of 398 aquatic sediment samples;
- Collection of 10 surface soils samples;
- Collection of biota samples including 44 fish, 7 vegetative samples and one turtle sample;
- Collection of surface water samples within OU-1; and
- Installation of 10 soil borings and 10 monitoring wells for analysis of soils and groundwater as well as physical properties of soil and hydrogeologic conditions.

To determine whether the sediment, surface soil, subsurface soils, groundwater, biota, and/or surface water contain contamination at levels of concern, data from the investigations were compared to the following SCGs:

- Groundwater, drinking water, and surface water SCGs are based on NYSDEC "Ambient Water Quality Standards and Guidance Values" and Part 5 of the New York State Sanitary Code.
- Soil SCGs are based on the NYSDEC "Technical and Administrative Guidance Memorandum (TAGM) 4046; Determination of Soil Cleanup Objectives and Cleanup Levels".
- Sediment SCGs are based on the NYSDEC "Technical Guidance for Screening Contaminated Sediments."
- Fish tissue SCGs are based on the NYSDEC "Niagara River Biota Contamination Project: Fish Flesh Criteria for Piscivorous Wildlife".

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

5.1.1: Site Geology and Hydrogeology

Regionally, all surface water eventually flows towards the north into Lake Ontario. At the site, all surface water in OU-1 is prevented from flowing into Lake Ontario by a small concrete dam. Groundwater generally flows to the northwest towards the lake. The overburden soils are a till consisting largely of a poorly sorted, dense, fine to medium sand with variable amounts of fine to medium gravel and silt. Bedrock ranges from 4 to 24 feet below grade and is typically the Oswego

Sandstone, which is comprised of gray, fine-to-medium-grained quartz sandstone. The bedrock generally has low permeabilities and low water yields. The upper zone of rock is more highly fractured than at depth with area domestic wells typically being with the first 75 feet of bedrock. The site is generally flat with a total relief of about 25 feet. The depth to groundwater ranges from 0 to 10 feet.

5.1.2: Nature of Contamination

As described in the RI report, many soil, groundwater, surface water, sediment and biota samples were collected to characterize the nature and extent of contamination. As summarized in Table 1, the main category of contaminants that exceed their SCGs are polychlorinated biphenyls (PCBs).

PCBs tend not to be mobile through solution in groundwater or surface water, tending to sorb (stick) onto the organic matter in soils and sediments. The primary mode of transport is the suspension of PCB-sorbed sediment particles into flowing surface water. The suspended particles eventually settle out when the flow slows down, however, they can be re-suspended under more turbid conditions and transported further.

5.1.3: Extent of Contamination

This section describes the findings of the investigation for all environmental media evaluated.

Chemical concentrations are reported in parts per billion (ppb) for water, parts per million (ppm) for soil, and sediment. For comparison purposes, where applicable, SCGs are provided for each medium.

Table 1 summarizes the degree of contamination for the contaminants of concern in sediments, surface soils, subsurface soils, surface water and groundwater, and compares the data with the SCGs for the site. The following are the media which were investigated and a summary of the findings of the investigation.

Surface Soil

Four surface soil samples were collected for the 1990 North Ponds Sediment Sampling Program and six samples were collected in conjunction with the 1997 North Ponds Investigation Report. The maximum concentration detected during these two investigations was 20 ppm PCBs (vs. the cleanup objective of 1 ppm). This sample was located in the vicinity of the Cold Mill Landfill. The next highest concentration was 2.3 ppm. PCBs were not detected in five of the ten samples.

During the RI, twenty five additional surface soil samples were collected. The maximum concentration (10.2 ppm) was again located in the vicinity of the Cold Mill Landfill, however, of an additional eight samples collected from this area, only two (1.7 ppm and 1.1 ppm) were above the recommended cleanup objective.

Among the 17 surface soil samples collected throughout the balance of the site, only two (3.52 ppm and 2.26 ppm) were above 1 ppm. The remaining fourteen samples were below 1 ppm, with nine

samples not detecting any PCBs. This supports that, in general, the surface soils surrounding the contaminated ponds and marshes are not a concern.

In November 2001, Alcan began to use a cooling water recirculation system whereby contact and non-contact cooling water is recovered and reused. With the operation of this new system, by mid-2002, water flow through the ponds and marshes ceased. As a result, the hydraulic character of the ponds and marshes changed. The footprint of each of the marshes as well as that of North Pond 2 decreased significantly. As a result, portions of the ponds and marshes are undergoing a transition from wetland to upland. Surface concentrations of PCBs from these transitional areas have been assessed as soil and compared to soil (i.e., not sediment) SCG's. This is reflected in Table 1.

The maximum PCB concentrations in the transitional areas of Marsh 1, 2 and 3 are 330 ppm, 65 ppm, and 520 ppm, respectively. The two highest transitional surface soil concentrations in North Pond 2 (21 and 24 ppm) are similar to the 20 ppm surface soil sample previously found in the adjacent Cold Mill Landfill area, a non-transitional area. Further characterization of PCBs in the surface soils in these areas would be assessed as an element of the remedial design. The design will determine will include a wetland delineation to the boundary between upland (soil) and wetland (sediment) areas.

Subsurface Soil

Subsurface PCB concentrations in the transitional areas of the Marsh 1, 2, and 3 were also assessed as soils rather than sediments. This is reflected in Table 1. The maximum subsurface soil concentrations identified in Marshes 1, 2 and 3 are 134 ppm, 72 ppm, and 52 ppm, respectively. In Marsh 1, subsurface soil samples were collected at four locations. Based on the data collected, no consistent trend was evident when evaluating the quality of subsurface vs. surface soils. For example, in one sample location, the PCB concentration in surface soil was less than 1 ppm, but increased to 134 ppm at the next interval (0.5 to 1.0 foot). A second sample had a surface sample contamination of 250 ppm, but was below the subsurface SCG by the next sample interval (0.5 to 1.0 feet).

Marsh 3 by comparison appears to have a more predictable contaminant distribution. There are no instances where contaminant concentrations increase with depth. Also, significant levels of contamination have not been found below a depth of one foot. This may be because Marsh 3 was removed from the cooling treatment system fairly soon after it was contaminated.

The need for additional characterization to define the depth of soil/sediment removal in North Pond 2, Marsh 1 and Marsh 2 would be assessed during the remedial design.

Groundwater

In 1997, PCB contamination was observed in one monitoring well (MW-5) between North Pond 2 and Lake Ontario. A concentration of 0.152 ppb was detected. By 2002, the PCB level at this location dropped to 0.083 ppb. In MW-7, 0.066 ppb of PCBs was detected. The groundwater standard for PCBs 0.090 ppb.

Localized, low-level volatile organic compound (VOC) contamination has also been detected in the vicinity of the Main Landfill in MW-1, MW-7, MW-10 and MW-12. The VOC compounds detected include: chloroethane (20.8 ppb in MW-1 and 20.8 ppb in MW-7, vs. the standard of 5 ppb), 1,1-dichloroethane (11.8 ppb in MW-10, vs. the standard of 5 ppb). Low-level contamination by semivolatile organic compounds (SVOCs) was also observed in MW-12. Compounds include: 1,2-dichlorobenzene (3.11 ppb) and 1,4-dichlorobenzene (3.53 ppb). The groundwater SCG for both of these compounds is 3 ppb.

One SVOC, bis(2-Ethylhexyl)phthalate, was detected in all of the groundwater samples (min. 77.9 ppb; max: 455 ppb vs. the SCG of 5 ppb). Bis(2-Ethylhexyl)phthalate is used in a wide variety of different materials including plastics, polyethylene, and polyvinyl chloride. Bis(2-Ethylhexyl)phthalate is also a common laboratory artifact as it can be introduced into samples during the handling or processing of samples. Bis(2-Ethylhexyl)phthalate was not detected in any of the groundwater samples that were previously collected as part of the North Ponds Sediment Sampling (1991) or the Main Landfill Investigation (1994). Because no other phthalates were detected in the samples and because the results were relatively uniform (bis(2-Ethylhexyl)phthalate was detected in upgradient, sidegradient, and downgradient wells), it is unlikely that bis(2-Ethylhexyl)phthalate is a constituent of concern in groundwater.

Inorganic (metals) contamination was detected at concentrations exceeding SCGs within each groundwater sample except those collected from MW-6 and MW-9. The metals exceeding SCGs were iron, magnesium, manganese, and sodium. These metals are generally consistent with mineral content that would be expected in shallow groundwater.

While some PCB, VOC, SVOC, and inorganic (metals) groundwater contamination is present at this site, it is present only at low-levels and is localized. Therefore, groundwater remediation is not viewed as necessary, though continued monitoring is recommended.

Surface Water

In October 1980, PCBs were first detected in Alcan's SPDES surface water discharge at a concentration of 0.46 ppb. A fish barrier was subsequently installed to limit sediment disturbance. A 1982 report stated that 95% of the succeeding weekly sampling showed no detectable PCBs (<0.01 ppb) and no discharge greater than 1 ppb of PCB was recorded.

In 1994, surface water samples were collected from North Pond 1 (one sample), North Pond 2 (one sample), Marsh 1 (two samples), and Marsh 2 (one sample). No PCBs were detected in these samples.

In 1996, nine surface water samples were collected in order to evaluate the distribution between dissolved PCB and suspended particulate PCB contamination in the surface water. In all samples, the dissolved fraction tended to be greater than the suspended PCB concentrations. An additional eight samples were analyzed only for total PCBs with no phase distribution evaluated. The maximum total PCB concentration was 0.508 ppb, which exceeds the surface water standards for the protection of wildlife.

In October 2002, four surface water samples were collected at four different locations in Tributary 63. No PCBs were detected in these samples.

Sediments

The sediment samples collected during the RI had a maximum concentration of 1,275 ppm in Marsh 3, at a depth interval of 0-0.5 feet. The maximum PCB sediment concentration in each of the remaining areas are as follows: North Pond 1 (max. 94.08 ppm at a depth interval of 2.5-3.0 feet), Marsh 1 (max. 380 ppm at a depth interval of 0-0.5 feet), North Pond 2 (max. 260 ppm at a depth interval of 3.5-4.0 feet), Marsh 2 (max. 60 ppm at a depth interval of 0-0.5 feet), South Pond (max. 158.2 ppm at a depth interval of 0.5-1.0 feet), and Tributary 63 (max. 23.57 ppm at a depth interval of 0-0.5 feet).

Additional characterization of the depth of impacts would be needed during the remedial design. To date, the maximum depth of contamination in all soil/sediment medium in each of the areas is: North Pond 1 (3.5-4.0 feet), North Pond 2 (5.0-5.5 feet), Marsh 1 (1.5-2.0 feet), Marsh 2 (3.0-3.4 feet), Marsh 3 (1.0-1.5 feet), South Pond (0.5-1.0 feet).

The NYSDEC Technical Guidance for Screening Contaminated Sediments establishes a screening criterion of 1.4 µgPCB/g of organic carbon in sediment for the protection of wildlife from PCB bioaccumulation. Sediments containing PCBs at higher concentrations are considered contaminated, presenting potential risk to wildlife consumers of fish. Since sediments in the ponds, marshes, and Tributary 63 exceed this concentration, additional investigation in the form of biota sampling was conducted to evaluate the extent of the potential risk.

Biota Sampling

During the North Ponds Investigation (October-November 1995 and August 1996), fish sampling was undertaken in each of the areas where PCBs had been detected: North Pond 1 (3 samples, max. 2.8 ppm), Marsh 1 (8 samples, max. 39 ppm), North Pond 2 (7 samples, max. 28 ppm), and Marsh 2 (6 samples, max. 27 ppm and 1 turtle sample, 3.2 ppm). No fish samples were collected from Marsh 3 because it was dry.

During the same investigation, vegetation (milfoil) biota sampling in each of the areas detected PCBs as follows: North Pond (2 samples, none detected), Marsh 1 (2 samples, max. 2.6 ppm), North Pond 2 (1 sample, 0.6 ppm), and Marsh 2 (2 vegetative, max. 0.71).

During the RI, biota sampling was conducted in Tributary 63 and in Teal Marsh. Fish sampling consisted of composite, whole-body, and skin-off fillets. Sample results from the Tributary 63 area ranged from non-detect to 8.05 ppm. Sample results from the Teal Marsh area ranged from non-detect to 2.85 ppm. Teal Marsh is downstream of Tributary 63 and further away from the South Pond discharge. In general, concentrations of PCBs in fish samples decreased in the samples taken further downstream of South Pond.

Fish tissue data were compared to the fish flesh criteria in the Niagara River Biota Report. This report recommends that a PCB concentration of 0.1mg/kg be used as a tissue criterion for protection

of wildlife. Comparison of the tissue concentrations to this SCG indicate that PCBs have accumulated in fish to levels expected to cause adverse effects in wildlife. As shown in Table 1, 40 of 50 samples from contaminated areas exceeded this criterion. One of ten samples for background sampling exceeded the SCGs.

5.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS.

There were no IRMs performed at this site during the RI/FS.

5.3: 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. A more detailed discussion of the human exposure pathways can be found in Section 5 of the RI report.

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: [1] a contaminant source, [2] contaminant release and transport mechanisms, [3] a point of exposure, [4] a route of exposure, and [5] a receptor population.

The source of contamination is the location where contaminants were released to the environment (any waste disposal area or point of discharge). Contaminant release and transport mechanisms carry contaminants from the source to a point where people may be exposed. The exposure point is a location where actual or potential human contact with a contaminated medium may occur. The route of exposure is the manner in which a contaminant actually enters or contacts the body (e.g., ingestion, inhalation, or direct contact). The receptor population is the people who are, or may be, exposed to contaminants at a point of exposure.

An exposure pathway is complete when all five elements of an exposure pathway exist. An exposure pathway is considered a potential pathway when one or more of the elements currently does not exist, but could in the future.

A potential future exposure pathway exists at the site. Receptors could come into direct contact with PCBs in surface soil or sediments and incidentally ingest those PCB-contaminated media. Current exposures have been eliminated by fencing the contaminated ponds, marshes and adjacent upland areas and limiting access to only those individuals necessary for maintenance and patrol. There is no residential development in the contaminated areas, groundwater will not be consumed and the PCBs do not present a potential for vapor intrusion.

5.4: Summary of Environmental Impacts

This section summarizes the existing and potential future environmental impacts presented by the site. Environmental impacts include existing and potential future exposure pathways to fish and wildlife receptors, as well as damage to natural resources such as aquifers and wetlands.

PCBs are highly bioaccumulative, meaning that they easily accumulate in the fatty tissue of organisms consuming contaminated biota. Tissue concentrations can magnify up the food chain resulting in toxic levels in upper level wildlife consumers. These toxic levels can result in reproductive failure, metabolic and systemic effects such as liver and kidney necrosis, neurotoxicity and behavioral alterations.

PCBs in soils and sediments act as sources of PCBs in this bioaccumulation-magnifying process. Ecological models can predict if a given soil and/or sediment concentration is likely to have adverse bioaccumulation effects on wildlife. These models predict that, where wildlife are exposed to soils and sediments of 1 ppm and greater, significant adverse effects to wildlife through bioaccumulation can be expected. Bioaccumulation of contaminants in flora or fauna from hazardous waste disposed at a site to a level that may cause, or materially contribute to, significant adverse ecotoxicological effects in flora or fauna constitutes a significant threat to the environment (at 6 NYCRR Part 375-1.4 (a) (1) (iii) Inactive Hazardous Waste Disposal Site Remedial Program).

The following environmental exposure pathways and ecological risks have been identified at this site:

- Sediments in the pond/marsh and tributary areas and soils concentrations throughout the site contain levels of PCBs that are predicted to affect the growth and survival of benthic and soil organisms and to bioaccumulate in fish and terrestrial animals.

- Surface water in OU-1 exceeded the surface water standard for the protection of wildlife; and

- PCBs in sediment and surface water at the site have resulted in bioaccumulation in fish tissues to levels potentially toxic to wildlife.

SECTION 6: 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. At a minimum, the remedy selected must eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles.

The remediation goals for this site are to eliminate or reduce to the extent practicable:

- exposures of persons at or around the site to PCBs in sediments and surface soils and surface water in OU-1 and in sediments and surface water in OU-3;

- harmful environmental exposures of flora or fauna to PCBs in soils in OU-1;

- harmful environmental exposures of flora or fauna to PCBs and oils in sediments and surface water in OU-1 and OU-3;
- the release of contaminants in OU-2 from soil into groundwater that may create exceedances of groundwater quality standards;
- the release of contaminants from sediment into surface water in OU-1, OU-3 and;
- the potential release of contaminants into Teal Marsh and Lake Ontario.

Further, the remedial objectives for the site include attaining to the extent practicable:

- 1 ppm PCBs for surface soils and 10 ppm PCBs for subsurface soils; and
- 1 ppm PCBs for sediments.

SECTION 7: SUMMARY OF THE EVALUATION OF ALTERNATIVES

The selected remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. Potential remedial alternatives for the Alcan Sheet and Plate Company Site were identified, screened and evaluated in the FS report which is available at the document repositories identified in Section 1.

A summary of the remedial alternatives that were considered for this site are discussed below. The present worth represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved.

7.1: Description of Remedial Alternatives

The following potential remedies were considered to address the contaminated soils and sediments, at the site.

For the purposes of this discussion, soil refers to soil in established and in newly emerged upland areas. Sediments refer to the sediments in the ponds and marshes, and in Tributary 63.

Alternative 1: No Action

Present Worth: *$65,600*
Capital Cost: *$0*
Annual OM&M: *$8,500*

Operable Unit No. 1

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. The No Action Alternative would not involve the implementation of any remedial activities to remove, treat, contain, or monitor constituents of interest in soil or sediment. The alternative relies on natural attenuation processes to reduce the concentrations of PCBs in soil and sediment. The site would be allowed to remain in its current condition, and no activities would be undertaken to change the current conditions.

Operable Unit No. 2

Since the Main Landfill is a closed landfill, OU-2 would be subject to No Further Action under this alternative. Under the No Further Action alternative, the Main Landfill (OU-2) would remain in its present condition. No additional remedial activities would be implemented. The depth of the soil cover meets the specifications required for landfill closure at the time of closure, and no significant impact to human health or the environment has been identified. Because localized, low-level contamination exists, an environmental easement restricting use of groundwater within the vicinity of the landfill would be necessary. Also, a Site Management Plan (SMP) would be developed to address maintenance and monitoring requirements, including a plan to assess groundwater quality and the integrity of the cover system.

Operable Unit No. 3

Under this alternative the South Pond, South Marsh and Tributary 63 (OU-3) would not be subject to implementation of any remedial activities to remove, treat, contain, or monitor constituents of interest in sediments. The alternative relies on natural attenuation processes to reduce the concentrations of PCBs in sediments. The site would be allowed to remain in its current condition, and no activities would be undertaken to change the current conditions.

Alternative 2: Removal of Marsh Sediment (above 1 ppm), North Pond Sediment (1 foot depth), Soil and Installation of Soil Cover

Present Worth: *$14,100,000*
Capital Cost: *$13,950,000*
Annual OM&M:
(Years 1-10): *$13,500*
(Years 11-30): *$5,000*

Operable Unit No. 1

Under this alternative, soil and sediment in the OU-1 pond and marsh areas would be excavated and transported for off-site disposal in accordance with applicable rules and regulations. The areal extent of the soil and sediment removals would be determined based on concentrations of PCBs exceeding 1 ppm. The depth limitation and goal of the removal, as well as method of restoration, would vary between the areas to be addressed.

For the sediments in the North Ponds, the top one foot would be removed and disposed off-site. The excavations would be covered with a geotextile fabric and a one foot clean cover.

For the sediments which remain in Marshes 1, 2 and 3, a minimum of one foot of sediment would be removed, with the final depth determined by a remedial objective of 1 ppm. In the excavated areas, clean soils would be placed back to original grades.

For soil in the areas around the North Ponds and Marshes 1 and 3, excavation would extend to a depth where the maximum concentration remaining would be 10 ppm. The excavated areas would then be covered with clean soil to an elevation which would keep the area as "upland", with a minimum one foot minimum soil cover.

In general, excavations of soils in Marsh 2 would follow the same criteria as in Marshes 1 and 3, but portions of Marsh 2, where contamination is slightly greater than 10 ppm (but less than 20 ppm) would be covered with one foot of clean soil.

Upland areas in the North Ponds and Marshes where PCB contamination in soil ranges from 1 to 10 ppm would be covered with one foot of clean soil.

Soils in the vicinity of the Cold Mill landfill and pump station, which exceed 1 ppm would be excavated to a depth of one foot and backfilled with clean soil to original grades.

Operable Unit No. 2

Under this alternative, the Main Landfill (OU-2) would remain in its present condition, consistent with that described under the No Action Alternative. No additional remedial activities would be implemented. The depth of the soil cover meets the specifications required for landfill closure at the time of closure, and no significant impact to human health or the environment has been identified. Because localized, low-level contamination exists, an environmental easement restricting use of groundwater within the vicinity of the landfill would be necessary. Also, a SMP would be developed to address maintenance and monitoring requirements, including a plan to assess groundwater quality and the integrity of the cover system.

Operable Unit No. 3

Sediments within the limits of the South Pond, South Marsh and along the main flow path through Segments B and C of Tributary 63, would be excavated to a depth which encounters underlying, uncontaminated native material and disposed off-site. In addition, any sediments where visual evidence of petroleum globules or sheen is apparent during excavation would be removed and disposed at a permitted facility. The extent of this additional removal would be determined during the remedial action. The excavations would then be backfilled with clean substrate, the type and depth to be determined in the habitat restoration plan.

Common Technical Elements - All Operable Units

- A remedial design program would be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program.

- Prior to construction of the remedy, a baseline biota monitoring plan would be developed to document pre-remedial tissue concentrations in aquatic and terrestrial biota including fish and small mammals from OU-1, OU-3, and Teal Marsh.

- Excavated soils and sediments would be transported for off-site disposal in accordance with applicable rules and regulations. Removal areas would generally be based on the results of the Remedial Investigation sampling, however, in some areas, additional sampling would be necessary during the design to determine appropriate depths to achieve remedial objectives. Following removal, documentation samples would be collected from the limits of the excavation areas and submitted for laboratory analysis. Site restoration would occur following review of the laboratory results.

- A habitat restoration plan would be developed and implemented for restoration and/or mitigation of regulated freshwater wetlands disturbed during remediation. The plan would also incorporate requirements for restoration of Tributary 63 and other areas disturbed during remediation. The new wetland boundaries would be delineated and baseline habitat conditions in the wetlands, adjacent areas and Tributary 63 would be documented during design. Implementation of the plan would ensure that the remedy meets the substantive requirements of 6 NYCRR Part 608 Use and Protection of Waters, and 6 NYCRR Part 663 Freshwater Wetlands Permit Requirements. The plan would include the requirements for appropriate backfill materials; backfill depths; efforts to save mature trees; and restoration of Tributary 63 and revegetation of the disturbed areas.

- A site management plan (SMP) would be developed and implemented. The SMP would identify the institutional controls and engineering controls (IC/ECs) required for the remedy and would detail their implementation. The SMP for this remedy would include:

  (a) An IC/EC control plan to establish the controls and procedures necessary to: (i) manage residual contaminated soils that may be excavated from the site during future activities, including procedures for characterization, handling, health and safety of workers and the community as well as, disposal/reuse in accordance with applicable NYSDEC regulations and procedures, (ii) maintain use restrictions regarding site development or groundwater use identified in the environmental easement; and (iii) require the property owner to provide an IC/EC certification, as required by regulations, on a periodic basis;

  (b) A monitoring plan to monitor sediments, surface water, biota and groundwater at the site. This plan would include: (i) a biota monitoring program to assess the effectiveness of the remedy in eliminating or reducing, to the extent practical, the significant threat to fish and wildlife. The monitoring program would include collection and evaluation of tissue samples from aquatic and terrestrial biota, including fish and small mammals, from OU-1, OU-3 and Teal Marsh. Monitoring would begin one year after completion of remedial activities and

continue every other year until a five year review of the biota monitoring data can be conducted; (ii) to further assess the detection of bis(2-Ethylhexyl)phthalate in the groundwater, six new overburden wells (four to the west of OU-1, two to the east of OU-2) would be installed to ascertain the origin of this contaminant and to more clearly identify groundwater flow direction; (iii) a groundwater monitoring program would be implemented; and (iv) a surface water monitoring program using large volume surface water samples to determine compliance with the surface water standard for protection of wildlife, and to assess whether the OU1 fish weirs could be removed; and

(c) Imposition of an institutional control in the form of an environmental easement that would: (i) require compliance with the approved site management plan; (ii) limit the use and development of the property to uses consistent with wetland and adjacent industrial use only; (iii) restrict the use of groundwater within the vicinity of the Main Landfill as a source of potable water, without necessary water quality treatment as determined by NYSDOH; and (iv) require the property owner to complete and submit to the NYSDEC a periodic certification.

The provisions of the environmental easement and SMP would extend to all operable units. The SMP would identify the institutional controls and engineering controls required for the remedy and would detail their implementation.

This alternative would result in the removal and off-site disposal of an estimated 36,350 cubic yards of contaminated soil and sediment, and an estimated 8,300 pounds of PCBs.

Alternative 3: Removal of Sediment (above 1 ppm), Soil (1 ppm/10 ppm) and Installation of Soil Cover

Present Worth: *$17,500,000*
Capital Cost: *$17,350,000*
Annual OM&M:
(Years 1-10): *$13,500*
(Years 11-30): *$5,000*

Operable Unit No. 1

The elements of this alternative which address the sediments in the Marshes are identical to Alternative 2. The excavation and removal of the sediment in the North Ponds, however, would continue beyond the one foot limit. That is, excavation would continue until a remedial objective of 1 ppm has been achieved. As in Alternative 2, the excavations in the North Ponds would then be covered with a minimum one foot clean cover.

Under this alternative no soils above 10 ppm would remain in upland areas in North Marsh 2. Marsh 2 would be remediated consistent with the criteria employed for soil in Marshes 1 and 3, under Alternative 2.

Operable Unit No. 2

The elements of this alternative are identical with those described under Alternative 2.

Operable Unit No. 3

The elements of this alternative are identical with those described under Alternative 2.

Common Technical Elements - All Operable Units

The general conditions associated with this alternative are identical with those described under Alternative 2.

This alternative would result in the removal and off-site disposal of an estimated 45,800 cubic yards of contaminated soil and sediment and an estimated 9,040 pounds of PCBs.

Alternative #4: Removal of Sediment (above 0.2 ppm), Soil (1 ppm/10 ppm) and Installation of Soil Cover

Present Worth: *$20,300,000*
Capital Cost: *$20,150,000*
Annual OM&M: *$8,500*

Operable Unit No. 1

The soils in the North Ponds and Marshes would be excavated according to the same criteria in Alternative 3.

The sediments in the North Ponds and Marshes would be excavated until a remedial objective of 0.2 ppm has been achieved. The excavations would then be filled with clean soil to original grades. In general, it is expected that this would result in excavating an additional one foot in the ponds and an additional six inches in the marshes.

Operable Unit No. 2

The elements of this alternative are identical with those described under Alternative 2.

Operable Unit No. 3

This alterative would excavate the sediments within the limits of the South Pond, South Marsh and along the main flow path through Segments B and C of Tributary 63 which contain PCBs greater, using a remedial objective of 0.2 ppm. As in Alternative 3, any sediments where visual evidence of petroleum globules or sheen is apparent during excavations, would also be subject to removal and off-site disposal. The extent of this additional removal would be determined during the remedial action. The excavations would then be filled with clean soil to original grades. To assess the effectiveness of the remedy, a long term monitoring program would be implemented.

Common Technical Elements - All Operable Units

The general conditions associated with this alternative are consistent with those described under Alternative 2, except as noted below.

To document post-excavation conditions, samples would be collected within the limits of the excavation and submitted for laboratory analysis. Any post-excavation sampling exceeding the 0.2 ppm remedial goal would require further excavation. The results of the sampling would be included in the certification report to be prepared at the conclusion of remedial activities.

This alternative would result in the removal and off-site disposal of an estimated 58,400 cubic yards of contaminated soil and sediment and an estimated 9,100 pounds of PCBs.

7.2 Evaluation of Remedial Alternatives

The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375, which governs the remediation of inactive hazardous waste disposal sites in New York State. A detailed discussion of the evaluation criteria and comparative analysis is included in the FS report. The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the NYSDEC has determined to be applicable on a case-specific basis.

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.

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 engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.

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.

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

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

This final criterion is considered a "modifying criterion" and is taken into account after evaluating those above. It is evaluated 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 PRAP have been evaluated. The responsiveness summary (Appendix A) presents the public comments received and the manner in which the NYSDEC addressed the concerns raised.

In general, the public comments received were supportive of the selected remedy. Several comments were received, however, pertaining to groundwater flow and the possibility that site contamination might affect neighboring residential properties, which are served by shallow wells.

SECTION 8: SUMMARY OF THE SELECTED REMEDY

Based on the Administrative Record (Appendix B) and the discussion presented below, the NYSDEC has selected Alternative 3, Removal of Sediment (above 1 ppm), Soil (1 ppm/10 ppm) and Installation of Soil Cover as the remedy for this site. The elements of this remedy are described at the end of this section.

The selected remedy is based on the results of the RI and the evaluation of alternatives presented in the FS.

Alternative 3 is being proposed because, as described below, it satisfies the threshold criteria and provides the best balance of the primary balancing criteria described in Section 7.2. It will achieve the remediation goals for the site by removing the soils and sediments that create the most significant threat to public health and the environment. It will greatly reduce the source of contamination available to the biota. Alternatives 2 and 4 would also comply with the threshold selection criteria, though Alternative 2 would do so to a lesser degree or with lower certainty.

Because Alternatives 2, 3 and 4 would satisfy the threshold criteria, the five balancing criteria are particularly important in selecting a final remedy for the site.

Alternatives 2, 3 and 4 would all have similar short-term impacts (e.g., transport of contaminated media, import of clean fill). The time needed to achieve the remediation goals would be similar for

Alternatives 2 and 3, but considerably longer for Alternative 4. The increase in volume excavated under Alternative 4 would result in increased short term impacts (i.e., greater handling of contaminated sediment) and a longer duration for the project.

Achieving long-term effectiveness would be best accomplished by excavation and removal of the contaminated soils and sediments (Alternatives 3 and 4). Using an engineered cap (Alternative 2) would not be as effective in the long-term, because hazardous concentrations of PCBs would remain in the sediments. Alternative 4 would be only slightly more favorable than Alternative 3 as a relatively small increase in PCB removal would be realized.

Each of the alternatives could be implemented at the site. Alternatives 2 would be the most straight-forward to implement, results of the RI would be adequate to plan and conduct these activities. Alternative 3 would be more difficult to implement than Alternative 2, due to the increased depth of sediment removed in the OU-1 Ponds. Alternative 4 would require additional soil and sediment sampling, and would also require the additional characterization, handling, transportation, and disposal of a substantially larger quantity of soil and sediment than Alternative 2.

When removing sediments, there are inherent operational difficulties that would limit the cleanup level which can practically be achieved. Limitations are caused in part by resuspended sediments subsequently mixing and resettling within the removal area, ultimately resulting in an overlying layer of sediments containing PCBs. Given the complications associated with achieving a 0.2 ppm remedial goal, the less extensive approaches proposed in Alternatives 2 and 3 to achieve the remedial action objectives (RAOs) are considered more implementable than Alternative 4.

For Alternatives 2, 3 and 4, the excavation and removal would reduce the toxicity, mobility and volume of PCBs as each action involves excavation and off-site disposal of contaminated media. Alternative 2 satisfies this criteria to a lesser degree as a lower volume of material would be removed, and the alternative relies on a engineered cover system to contain (rather than remove) that which remains. The PCB mass removals estimated for the various alternatives are 8,300 pounds, 9,040 pounds and 9,100 pounds, for Alternatives 2, 3 and 4, respectively.

The cost of the alternatives vary significantly. Each of the alternatives would include a removal and cover component. Alternative 3 would remove an additional 740 pounds of PCBs vs. Alternative 2. Alternative 4 would remove an additional 60 pounds of PCBs vs. Alternative 3, but require excavation, handling and disposal of an additional 12,600 cubic yards of soil/sediment. The $2.8 million dollar cost increase for Alternative 4 (vs. Alternative 3) would bring only limited improvement.

Alternative 3, although more expensive, will be a more permanent remedy than Alternative 2.

The estimated present worth cost to implement the remedy is $17,500,000. The cost to construct the remedy is estimated to be $17,350,000 and the estimated average annual operation, maintenance, and monitoring costs for 1-10 years is $13,500 and for 11-30 years is $8,500.

The elements of the proposed remedy for each of the Operable Units are as follows:

Operable Unit No. 1 - North Ponds 1 and 2, Marshes 1, 2 and 3, and the Cold Mill Landfill

- Sediments exceeding 1 ppm of PCBs in the North Ponds will be removed and disposed off-site. These excavations will be covered with one foot of clean substrate, the details of type and depth to be determined in the habitat restoration plan. The design will ensure that the pond side slopes are stable.

- Sediments exceeding 1 ppm of PCBs in the Marshes will be removed and disposed off-site. These excavations will be backfilled with clean substrate, the details of type and depth to be determined in the habitat restoration plan.

- Soils which exceed 10 ppm of PCBs in upland areas of the North Ponds and Marshes will be removed and disposed off-site. The excavated areas will then be backfilled with a minimum one foot of clean soil. In some locations, restoration will require additional clean soil to ensure these areas retain "upland" status.

- Upland areas in the North Ponds and Marshes where PCB contamination in soil ranges from 1 to 10 ppm will be covered with one foot of clean soil.

- Soils in the vicinity of the Cold Mill landfill and pump station, which exceed 1 ppm will be excavated to a depth of one foot and backfilled with clean soil to original grades.

Operable Unit No. 2 - Main Landfill

- No further action will be required. Because localized, low-level contamination exists, an environmental easement restricting use of groundwater within the vicinity of the landfill will be necessary. Also, a Site Management Plan will be developed to address maintenance and monitoring requirements, including a plan to routinely assess groundwater quality and the integrity of the cover system.

Operable Unit No. 3 - South Pond, South Marsh, and Tributary 63

- Sediments within the limits of the South Pond, South Marsh and along the main flow path through Segments B and C of Tributary 63, will be excavated to a depth which encounters underlying, uncontaminated native material and disposed off-site. In addition, any sediments where visual evidence of petroleum globules or sheen is apparent during excavation will be removed and disposed at a permitted facility. The extent of this additional removal will be determined during the remedial action. The excavations will then be backfilled with clean substrate, the type and depth to be determined in the habitat restoration plan.

Common Technical Elements - All Operable Units

- A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program.

- Prior to construction of the remedy, a baseline biota monitoring plan will be developed to document pre-remedial tissue concentrations in aquatic and terrestrial biota including fish and small mammals from OU-1, OU-3, and Teal Marsh.

- Excavated soils and sediments will be transported for off-site disposal in accordance with applicable rules and regulations. Removal areas will generally be based on the results of the Remedial Investigation sampling, however, in some areas, additional sampling will be necessary during the design to determine appropriate depths to achieve remedial objectives. Following removal, documentation samples will be collected from the limits of the excavation areas and submitted for laboratory analysis. Site restoration will occur following review of the laboratory results.

- A habitat restoration plan will be developed and implemented for restoration and/or mitigation of regulated freshwater wetlands disturbed during remediation. The plan will also incorporate requirements for restoration of Tributary 63 and other areas disturbed during remediation. The new wetland boundaries will be delineated and baseline habitat conditions in the wetlands, adjacent areas and Tributary 63 will be documented during design. Implementation of the plan will ensure that the remedy meets the substantive requirements of 6 NYCRR Part 608 Use and Protection of Waters, and 6 NYCRR Part 663 Freshwater Wetlands Permit Requirements. The plan will include the requirements for appropriate backfill materials; backfill depths; efforts to save mature trees; and restoration of Tributary 63 and revegetation of the disturbed areas.

- A site management plan (SMP) will be developed and implemented. The SMP will identify the institutional controls and engineering controls (IC/ECs) required for the remedy and will detail their implementation. The SMP for this remedy will include:

  (a) An IC/EC control plan to establish the controls and procedures necessary to: (i) manage residual contaminated soils that may be excavated from the site during future activities, including procedures for characterization, handling, health and safety of workers and the community as well as, disposal/reuse in accordance with applicable NYSDEC regulations and procedures, (ii) maintain use restrictions regarding site development or groundwater use identified in the environmental easement; and (iii) require the property owner to provide an IC/EC certification, as required by regulations, on a periodic basis;

  (b) A monitoring plan to monitor sediments, surface water, biota and groundwater at the site. This plan will include: (i) a biota monitoring program to assess the effectiveness of the remedy in eliminating or reducing, to the extent practical, the significant threat to fish and wildlife. The monitoring program will include collection and evaluation of tissue samples from aquatic and terrestrial biota, including fish and small mammals, from OU-1, OU-3 and Teal Marsh. Monitoring will begin one year after completion of remedial activities and continue every other year until a five year review of the biota monitoring data can be conducted; (ii) to further assess the detection of bis(2-Ethylhexyl)phthalate in the groundwater, six new overburden wells (four to the west of OU-1, two to the east of OU-2) will be installed to ascertain the origin of this contaminant and to more clearly identify groundwater flow direction; (iii) a groundwater monitoring program will be implemented;

and (iv) a surface water monitoring program using large volume surface water samples to determine compliance with the surface water standard for protection of wildlife, and to assess whether the OU1 fish weirs could be removed; and

(c) Imposition of an institutional control in the form of an environmental easement that will (i) require compliance with the approved site management plan; (ii) limit the use and development of the property to uses consistent with wetland and adjacent industrial use only; (iii) restrict the use of groundwater within the vicinity of the Main Landfill as a source of potable water, without necessary water quality treatment as determined by NYSDOH; and (iv) require the property owner to complete and submit to the NYSDEC a periodic certification.

SECTION 9: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the remedial investigation process, a number of Citizen Participation activities were undertaken to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- Repositories for documents pertaining to the site were established.
- A public contact list, which included nearby property owners, elected officials, local media and other interested parties, was established.
- A Fact Sheet was distributed to the site contact list in August 2002 announcing the start of the RI/FS.
- A Fact Sheet was distributed to the site contact list in February 2006 announcing the availability of the Proposed Remedial Action Plan.
- A public meeting was held on March 13, 2006 to present and receive comment on the PRAP.
- A responsiveness summary (Appendix A) was prepared to address the comments received during the public comment period for the PRAP.

TABLE 1
Nature and Extent of Contamination

SURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
Marsh 1	PCB	0.68 to 330	1	15 of 16
Marsh 2		ND[d] to 65		19 of 22
Marsh 3		ND to 520		27 of 29
North Pond 2		ND to 24		3of 5
OU-1 Perimeter		ND to 20		4 of 10
Pump House		ND to 1.9		1 of 6
Cold Mill Landfill		ND to 3.52		2 of 13

SUBSURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
Marsh 1	PCB	ND to 134	10	5 of 16
Marsh 2		ND to 72		6 of 17
Marsh 3		ND to 52.68		7 of 23

SEDIMENTS	Contaminants of Concern	Concentration Range Detected (ppm)[a]	RAO[e] (ppm)	Frequency of Exceeding RAO
Marsh 1	PCB	ND to 380	1	30 of 39
Marsh 2		ND to 60		9 of 11
Marsh 3		0.6 to 1275		14 of 15
North Pond 1		ND to 94		42 of 47
North Pond 2		ND to 260		39 of 50
South Pond		ND to 161		8 of 14
Tributary 63		ND to 23.57		18 of 36

TABLE 1 (con't)
Nature and Extent of Contamination

GROUNDWATER	Contaminants of Concern	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)[a]	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	1,1-Dichloroethane	ND to 11.8	5	1 of 14
	Acetone	ND to 5.79	50	0 of 14
	Chloroethane	ND to 20.8	5	1 of 13
Semivolatile Organic Compounds (SVOCs)	1,2-Dichlorobenzene	ND to 3.11	3	1 of 13
	1,3-Dichlorobenzene	ND to 1.71	3	0 of 13
	1,4-Dichlorobenzene	ND to 3.53	3	2 of 13
	Bis(2-Ethylhexyl)phthalate	77.9 to 455	5	13 of 13
	Butylbenzylphthalate	ND to 1.65	50	0 of 13
	Di-n-butylphthalate	ND to 1.26	50	0 of 13
PCB/Pesticides	PCBs	ND to 0.083[d]	0.09	0 of 13
Inorganic Compounds	Barium	ND to 1730	1,000	1 of 13
	Iron	ND to 63,300	300	7 of 13
	Magnesium	ND to 68,000	35,000	6 of 13
	Manganese	ND to 27,500	300	10 of 13
	Sodium	ND to 300,000	20,000	9 of 13
	Zinc	ND to 22	2,000	0 of 13

TABLE 1 (con't)
Nature and Extent of Contamination

Biota Sampling for PCBs	Number of Samples	SCG (mg/kg)	Concentration Range Detected (ppm)[a]	Frequency of Exceeding SCG
OU-3 (Location A)				
Redfin pickerel	6	0.1	ND to 0.94	1 of 6
Sunfish	3		ND	0 of 3
White sucker	1		ND	0 of 1
OU-3 (Location B)				
Brown bullhead (fillet)	2	0.1	0.60 to 1.11	2 of 2
Redfin pickerel	6		2.80 to 4.52	6 of 6
Sunfish	2		5.82 to 8.05	2 of 2
OU-3 (Location C)				
Largemouth bass (fillet)	1	0.1	ND	0 of 1
Redfin Pickerel	7		1.03 to 3.73	7 of 7
Sunfish	2		2.33 to 4.09	2 of 2

TABLE 1 (con't)
Nature and Extent of Contamination

Biota Sampling for PCBs	Number of Samples	SCG (mg/kg)	Concentration Range Detected (ppm)[a]	Frequency of Exceeding SCG
Teal Marsh (Location 1A)				
Mudminnow	2	0.1	0.63 to 1.08	2 of 2
Teal Marsh (Location 1B)				
Sunfish	5	0.1	0.13 to 2.85	5 of 5
Redfin pickerel	5		0.11 to 1.34	5 of 5
Mudminnow	3		0.30 to 0.35	3 of 3
Teal Marsh (Location 2)				
Brown bullhead (fillet)	3	0.1	ND to 0.24	1 of 3
Sunfish (fillet)	1		0.77	1 of 1
Largemouth bass (fillet)	1		0.16	1 of 1
Redfin Pickerel	7		ND to 0.59	4 of 7
Sunfish	3		0.30 to 0.38	3 of 3

[a] ppb = parts per billion, which is equivalent to micrograms per liter, ug/L, in water;
ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
ug/m^3 = micrograms per cubic meter

[b] SCG = standards, criteria, and guidance values;

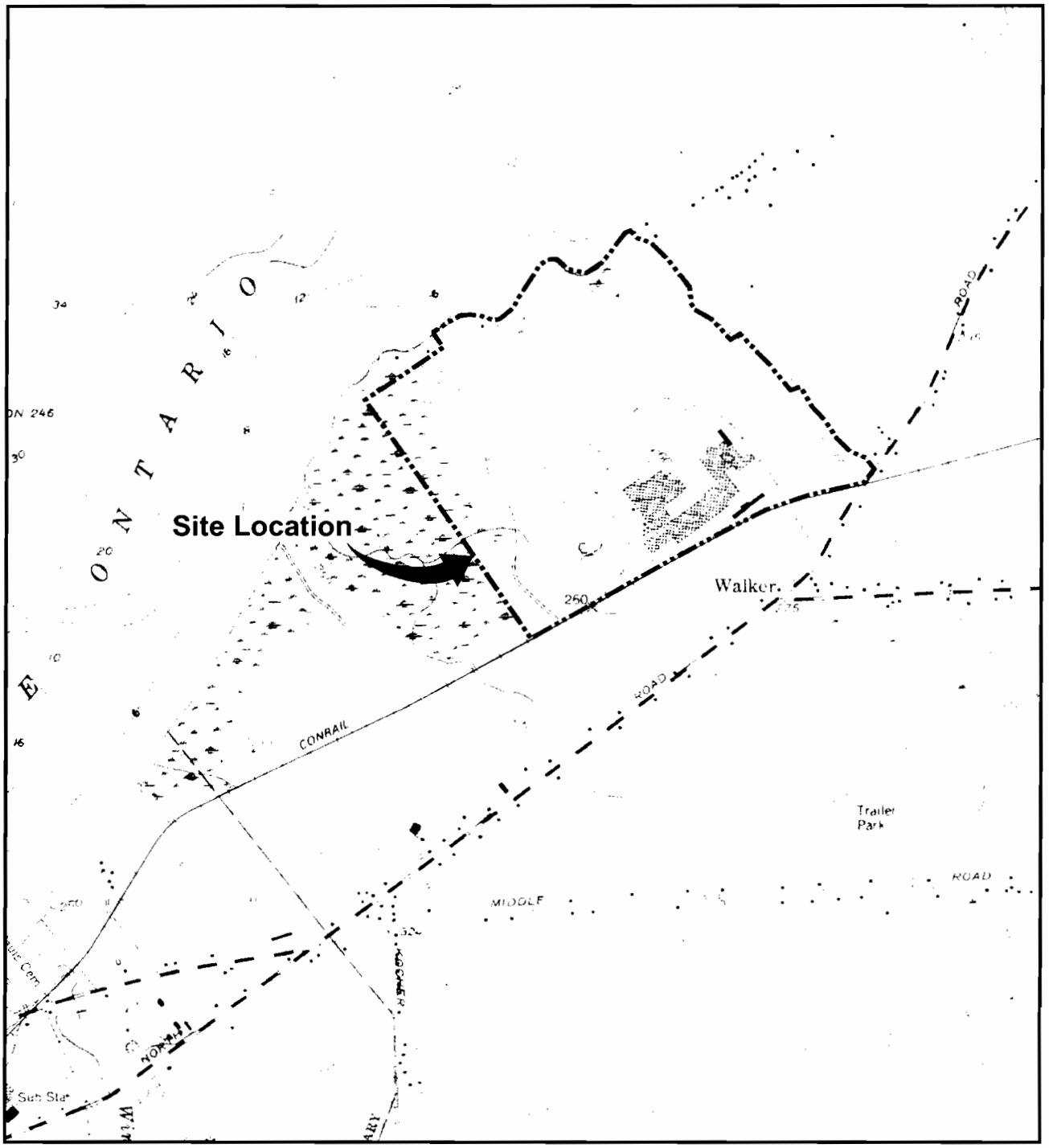
[c] ND = Non-Detect: Not detected in the sample at the quantification limits of the analytical method used.

[d] Groundwater data in Table 1 includes only RI data. Historical maximum was 0.152 ppb (MW-5) in 1997 North Ponds Investigation Report.

[e] RAO = Remedial Action Objective. The NYSDEC Technical Guidance for Screening Contaminated Sediments establishes a screening criterion of 1.4 µgPCB/g of organic carbon in sediment for the protection of wildlife from PCB bioaccumulation. The site specific RAO for PCBs in sediment is 1 ppm.

Table 2
Remedial Alternative Costs

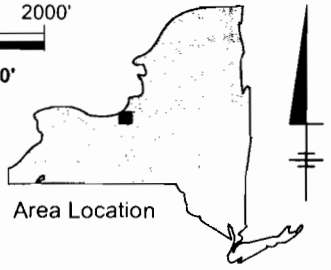
Remedial Alternative	Capital Cost	Annual OM&M	Total Present Worth
Alternative 1:No Action	$0	$8,500	$65,600
Alternative 2: Removal of Marsh Sediment (above 1 ppm), North Pond Sediment (1 foot depth), Soil and Installation of Soil Cover	$13,950,000	$13,500 (1-10 years) $5,000 (11-30 years)	$14,100,000
Alternative 3: Removal of Sediment (above 1 ppm), Soil (1 ppm/10 ppm) and Installation of Soil Cover	$17,350,000	$13,500 (1-10 years) $5,000 (11-30 years)	$17,500,000
Alternative 4: Removal of Sediment (above 0.2 ppm), Soil (1 ppm/10 ppm) and Installation of Soil Cover	$20,150,000	$8,500 (1-10 years)	$20,300,000



REFERENCE: Base Map USGS 7.5 Min. Quad., Oswego East, & West of Texas, New York, 1954, Photorevised 1978.

2000' 0 2000'

Approximate Scale: 1" = 2000'



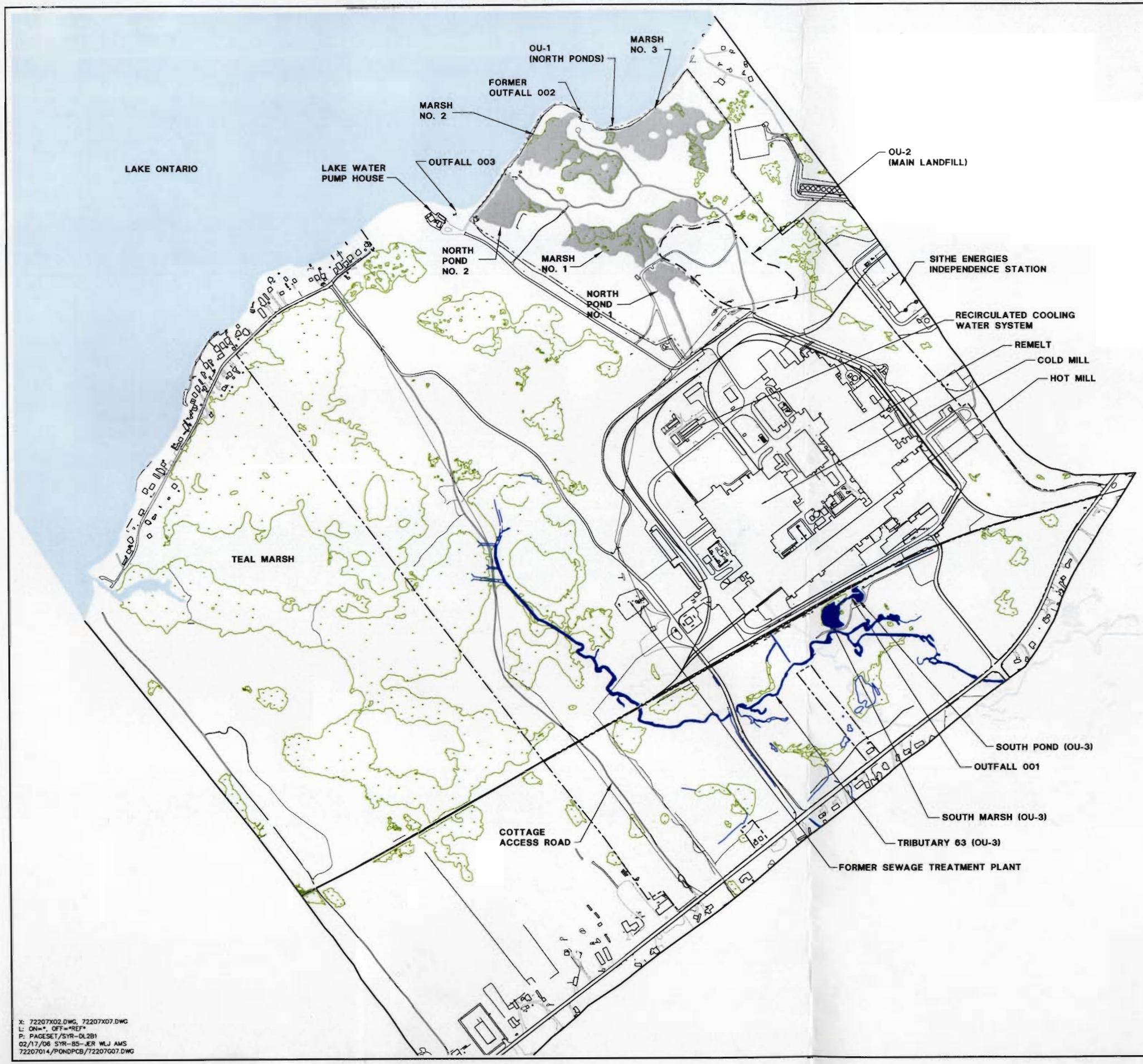
ALCAN SHEET AND PLATE COMPANY SITE
OSWEGO, NEW YORK
FOCUSED FEASIBILITY STUDY

SITE LOCATION MAP

BBL® BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 1

02/16/06 SYR-D85-DJH
72207014/72207n02.cdr



LEGEND:

- APPROXIMATE PROPERTY LINE
- APPROXIMATE EXTENT OF PONDS AND MARSHES DURING OPERATION OF COOLING WATER TREATMENT SYSTEM (1968–2002)
- APPROXIMATE AREA OF OU-1
- APPROXIMATE AREA OF OU-2
- APPROXIMATE AREA OF OU-3

NOTES:

1. BASEMAP GENERATED FROM A MAY 3, 2003 AERIAL SURVEY COMPLETED BY SANBORN, INC. AT A SCALE OF 1"=50'.
2. THE HORIZONTAL DATUM IS BASED ON NORTH AMERICAN DATUM OF 1983, NY CENTRAL ZONE.
3. THE VERTICAL DATUM IS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.
4. PROPERTY LINE WAS APPROXIMATED FROM A SCANNED DRAWING PROVIDED BY ALCAN ALUMINUM CORPORATION, OSWEGO, NEW YORK DATED 10/18/79, DRAWING NO. 46071.

0 400' 800'
GRAPHIC SCALE

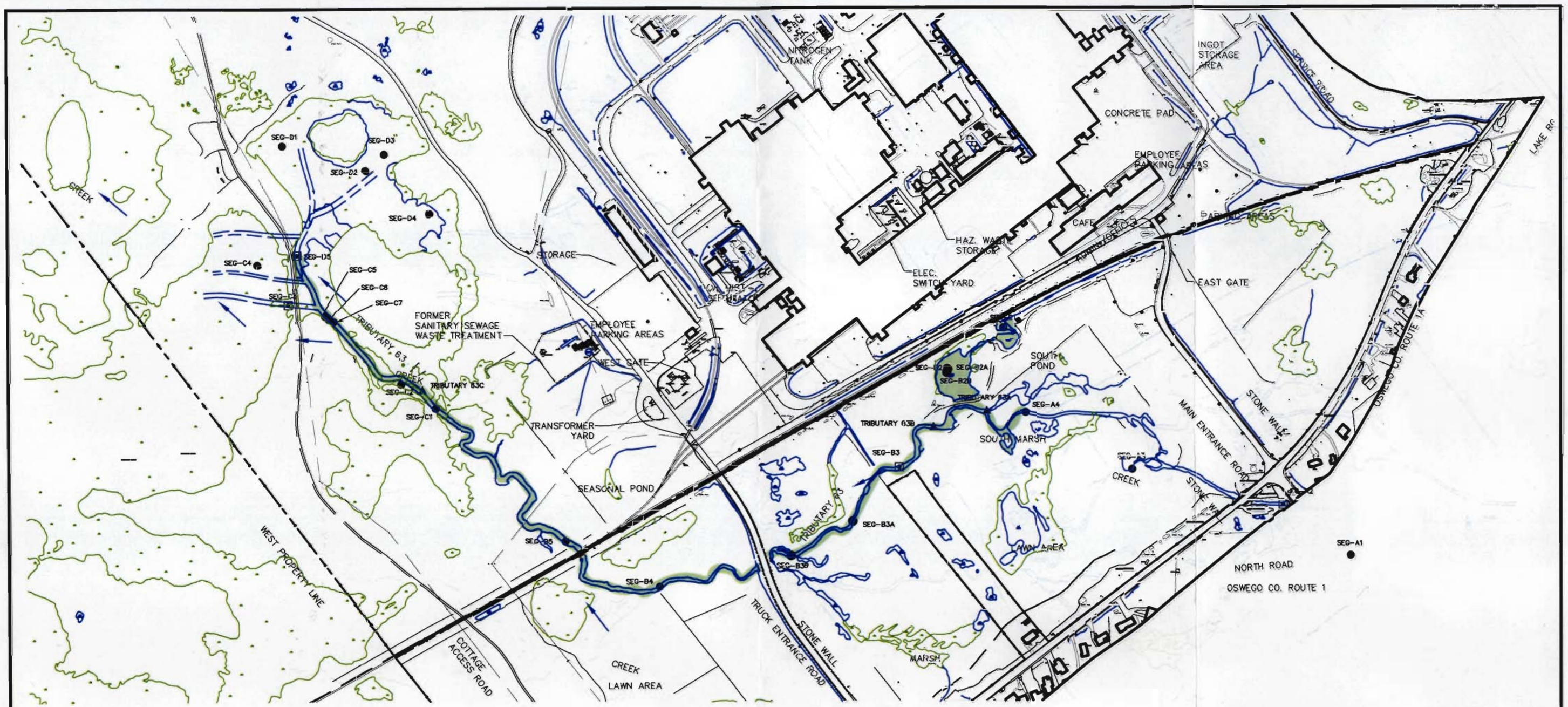
ALCAN SHEET AND PLATE COMPANY SITE
OSWEGO, NEW YORK
FOCUSED FEASIBILITY STUDY

SITE LAYOUT PLAN

BBL BLASLAND, BOUCK & LEE, INC. engineers, scientists, economists

FIGURE 2

X: 72207X02.DWG, 72207X07.DWG
L: ON=*, OFF=*REF*
P: PAGESET/SYR-DL2B1
02/17/06 SYR-85-JER WLJ AMS
72207014/PONDPCB/72207G07.DWG



LEGEND:

- RAILROAD
- CHAIN LINK FENCE
- LIMITS OF WETLAND AREA AS MAPPED PER AERIAL SURVEY
- PROPOSED SEDIMENT REMOVAL
- SEG-A1 — SURFICIAL SEDIMENT SAMPLE LOCATION
- SEG-A2 — JOINT SURFACE WATER AND SEDIMENT SAMPLE LOCATION
- TRIBUTARY-63A — APPROXIMATE DAMES AND MOORE SEDIMENT SAMPLE LOCATION

NOTE;

1. BASEMAP GENERATED FROM A MAY 3, 2003 AERIAL SURVEY COMPLETED BY SANBORN, INC. AT A SCALE OF 1"=50'.
2. FISH COLLECTION AREAS WERE DIGITIZED FROM FIGURE OBTAINED FROM ENSR CORPORATION, ENTITLED "FIGURE 5-1c, PROPOSED SAMPLING LOCATIONS OU-3 (TRIBUTARY 63), AT A SCALE OF APPROXIMATELY 1"=500'.
3. SAMPLE LOCATIONS ARE APPROXIMATE.

0 400' 800'

GRAPHIC SCALE

X: 72207X05.DWG
L: ON=*, OFF=*REF*
P: PAGESET/SYR-BL1
02/16/06 SYR-85-JER WLJ AMS
72207014/PONDPCB/72207C18.DWG

ALCAN SHEET AND PLATE COMPANY SITE
OSWEGO, NEW YORK
FOCUSED FEASIBILITY STUDY

OU-3 PROPOSED REMOVAL LIMITS

BBL BLASLAND, BOUCK & LEE, INC. engineers, scientists, economists

FIGURE 3

LEGEND:

- SURFACE SEDIMENT SAMPLE LOCATION
- SEDIMENT CORE SAMPLE LOCATION
- SEDIMENT CORE SAMPLE LOCATION (CONGENER SPECIFIC)
- SUBSURFACE SOIL SAMPLE LOCATION
- FENCE
- PAVED ROAD
- UNIMPROVED ROAD
- PROPERTY LINE
- APPROXIMATE BOUNDARY OF LANDFILL
- PIPE
- PROPOSED SURFACE SOIL REMOVAL
- PROPOSED SURFACE SEDIMENT REMOVAL
- PROPOSED SUBSURFACE SOIL/SEDIMENT REMOVAL
- PROPOSED COVER AREA

SITHE COOLING POND

SITHE PROPERTY

MARSH NO. 3

WOODED AREA

MARSH NO. 2

WOODED AREA

WOODED AREA

NORTH POND NO. 2

MOWED FIELD

WOODED AREA

COLD MILL LANDFILL

MARSH NO. 1

MAIN LANDFILL

WOODED AREA

NORTH POND NO. 1

MOWED FIELD

WOODED AREA

COMPOST PILES

MOWED FIELD

NOTES:

1. BASEMAP GENERATED FROM A MAY 3, 2003 AERIAL SURVEY COMPLETED BY SANDBORN, INC. AT A SCALE OF 1"=50'.
2. LOCATIONS UPDATED 10/1/02 BASED ON A BBL SURVEY. COORDINATES BASED ON NAD 1983.
3. ELEVATIONS BASED ON NGVD 1929.

0 120' 240'
GRAPHIC SCALE

ALCAN SHEET AND PLATE COMPANY
OSWEGO, NEW YORK
FOCUSED FEASIBILITY STUDY

ALTERNATIVE 3 - SOIL/SEDIMENT REMOVAL WITH SOIL COVER - PROPOSED LIMITS

BBL BLASLAND, BOUCK & LEE, INC. engineers, scientists, economists

FIGURE 4

X: 72207X06.DWG
L: ON=*, OFF=*REF*
P: PAGESET/SYR-DL
02/21/06 SYR-85-RCA WLJ AMS
72207014/FFS-3/72207G06.DWG

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

Alcan Sheet and Plate Company Site
Operable Unit No. 1 - North Ponds and Marshes
Operable Unit No. 2 - Main Landfill
Operable Unit No. 3 - South Pond, Marsh and Tributary 63
Town of Scriba, Oswego County, New York
Site No. 7-38-015

The Proposed Remedial Action Plan (PRAP) for the Alcan Sheet and Plate Company site, was prepared by the New York State Department of Environmental Conservation (NYSDEC) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 27, 2006. The PRAP outlined the remedial measure proposed for the contaminated soil and sediment at the Alcan Sheet and Plate Company site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on March 13, 2006, which included a presentation of the Remedial Investigation (RI) and the Feasibility Study (FS) as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 28, 2006.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the NYSDEC's responses:

COMMENT 1: How will you control sediment transport during remediation? Will it get into the Lake Ontario?

RESPONSE 1: Controls will be employed specifically to avoid sediment transport. Some of the methods used will be dewatering areas prior to excavation, re-routing water flow, silt fences and, if necessary, silt curtains.

COMMENT 2: Where will the excavated material be going?

RESPONSE 2: The excavated material will be going to a facility permitted to receive soils contaminated with PCBs. Those soils/sediments with PCBs below 50 parts per million (ppm) could go to a permitted solid waste landfill. Those soils/sediments with PCBs equal to or above 50 ppm will go to a permitted hazardous waste landfill. In both cases, the material will be disposed in accordance with applicable regulations.

COMMENT 3: Is there a facility within 100 miles? What was used to estimate the cost?

RESPONSE 3: The nearest facility which can accept the material containing 50 ppm PCBs and above is the Chemical Waste Management landfill in Model City, New York. This is one of the

facilities used for cost estimating purposes in the Feasibility Study (FS). The unit cost estimated in the FS is $175/ton.

COMMENT 4: How many cubic yards will be excavated?

RESPONSE 4: Approximately 46,000 cubic yards of contaminated soil and sediment will be excavated and removed. Approximately half of that volume is expected to go a permitted hazardous waste facility.

COMMENT 5: Can the trucks be controlled to avoid spillage from muddy sediments and soils?

RESPONSE 5: The soils and sediments will be dewatered and, if necessary, the trucks will be lined. No spillage during transport will be permitted.

COMMENT 6: Were any adjoining properties tested?

RESPONSE 6: No. Sediment sampling in Tributary 63 (Operable Unit 3) extended west to the facility access road and several sediment samples were collected just west of the culverts. Fish samples were collected from Teal Marsh.

COMMENT 7: How does the plan help the downgradient (of Teal Marsh) properties?

RESPONSE 7: The source areas in Tributary 63, South Marsh, and South Pond will be remediated by the removal of contaminated sediments. This will eliminate the potential for further impact to resources (e.g., fish) in these areas, as well as areas downgradient including Teal Marsh.

COMMENT 8: What types of fish were sampled? How do these numbers compare with the Lake Ontario fish?

RESPONSE 8: The types of fish sampled included: mudminnows, sunfish, redfin pickerel, brown bullhead, largemouth bass, white sucker. The levels of PCBs (on average) found in Tributary 63 tended to be slightly higher than would be expected to be found in Lake Ontario, though the maximum concentration found in Tributary 63 could also be found in Lake Ontario. The levels of PCBs detected in fish in OU-1 were significantly higher than would typically be found in Lake Ontario.

COMMENT 9: All of these numbers are from a study two years ago? Are the fish numbers still accurate?

RESPONSE 9: The contaminated sediments have been present for as long as three decades, so a quasi-steady state is expected to have been reached. It is believed the data accurately reflects current conditions.

COMMENT 10: Is there any possibility that these PCBs could enter our drinking water?

RESPONSE 10: There is no data which supports that PCBs from this site could be entering your drinking water. PCB contamination in groundwater identified at the site is low-level and localized. Furthermore, data supports that the direction of groundwater flow at this site, expecially in OU-1 (the most heavily contaminated area), moves directly towards Lake Ontario, not towards the residential areas to the east or west. However, to address this concern, along the eastern boundary of OU-2, two more monitoring wells will be installed and along the western boundary of OU-1, four more monitoring wells will be installed. These wells will enhance the existing monitoring network, and help better define the groundwater flow direction.

COMMENT 11: What kind of exposure could have happened prior to the installation of the fence?

RESPONSE 11: The exposure pathway of concern would have been incidental ingestion of surface soil. Prior to the installation of the fence, the most highly contaminated areas were under water. People would not have been likely to come into contact with these submerged, contaminated sediments. The protective cleanup goal for surface soils is 1 ppm. Much of the area where people could have walked has been shown to have less than 1 ppm of PCB, however, one location had a PCB concentration of 20 ppm and another in that area 10 ppm. In another area the maximum was 3.52 ppm with another close by at 2.26 ppm. All the remaining surface soils samples site wide were predominantly below 1 ppm with some marginally above 1 ppm. All these areas are grassed areas which means that the likelihood that someone would have come into contact with the marginally contaminated soils below the grass is extremely small and, if so, for only a very short time.

COMMENT 12: If you are only excavating one foot, would you be leaving heavily contaminated soils behind?

RESPONSE 12: Remedial Alternative No. 2, which was not selected, called for the excavation to a depth of one foot. Alternative 3 was selected which involves removal of all heavily contaminated soils and sediments from the site. The depths of excavation will be greater than one foot wherever it is needed to achieve the 1 ppm criteria or, in the case of the upland subsurface soils, the 10 ppm criteria. The maximum depth of excavation is expected to be approximately 5.5 feet in North Pond 2.

COMMENT 13: How soon will this start? When will it end?

RESPONSE 13: Once the Record of Decision is issued, the site owner will be asked to enter into an Order on Consent (legal agreement) for the remedial design and remedial construction of the selected remedy. It is anticipated that the consent order will be executed and the design will begin in 2006. Construction is likely in 2007. Once started, construction is expected to take approximately six months to complete.

COMMENT 14: Is there anything neighbors should be concerned about during construction?

RESPONSE 14: The remedial design will address health and safety considerations during construction activities for those working on the site, as well as those who live near the site. A community air monitoring plan (CAMP) will be developed which will specify the procedures that need to be implemented to prevent the transport of dust toward neighboring properties. There will

be continuous particulate (dust) monitoring during construction, downgradient of the working area. If monitoring detects dust levels above acceptable limits, then the contractor will immediately cease activities and apply appropriate dust suppression. When developing the plans for site access/egress and haul routes, the design will contemplate the neighboring properties and seek to minimize disruption.

COMMENT 15: I want to know right away when they are not in compliance.

RESPONSE 15: The community air monitoring program involves the collection of real time data and monitoring reports will be developed. The remedial work will be conducted with the oversight of the NYSDEC and the NYSDOH. The NYSDEC and NYSDOH will assess this data and non-compliance with the CAMP will result in a temporary work stoppage, and continued violation would result in a work shut down. If the neighboring public has concerns with the construction (dust, etc.) they are urged to contact the NYSDEC project manager immediately.

COMMENT 16: Please explain Environmental Easements? Will it limit our ability to use the access road to our houses?

RESPONSE 16: No. An environment easement is used to emplace certain use restrictions on properties, based on the presence of contamination. The use restrictions envisioned for this site include a groundwater use restriction on-site; and a restriction on future use of the property i.e., no development in the wetland areas; and compliance with a site management plan to address any future excavation in areas where PCBs may be present up to 10 ppm. These restrictions will in no way impact or limit the use of the access road.

COMMENT 17: How far has the groundwater been tested to the east and the west?

RESPONSE 17: The monitoring well network is generally limited to the areas which comprise OU-1 and OU-2. Given the localized nature of the contamination observed in groundwater, as well as the non-mobile nature of PCBs (the primary contaminant of concern at this site) in groundwater, the need for well placement in areas further east or west was not included as a component of the remedial investigation. However, in light of the concerns raised (see Comment/Response 10), the remedial program will include the installation of two new wells to the east and two to the west, to enhance the current network.

COMMENT 18: If PCBs aren't mobile, then why dig up all the dirt?

RESPONSE 18: While PCBs generally do not migrate through groundwater, they can migrate through sediment suspension. Further, the concentrations of PCBs observed at this site are above concentrations protective of human health and the environment. PCBs are highly bioaccumulative, meaning that they easily accumulate in the fatty tissue of organisms consuming contaminated biota. Tissue concentrations magnify up the food chain resulting in toxic levels in upper level wildlife consumers. In light of the bioaccumulative affects of PCBs and the concentrations relative to acceptable levels, a comprehensive removal program, with offsite disposal, has been selected.

COMMENT 19: You say that this proposed remedy is protective of human health. How can you say that when all your tests are environmental?

RESPONSE 19: An important part of identifying whether or not a remedy is protective of human health is to identify if there is an exposure pathway whereby the PCBs from the site are coming into contact with human receptors. By taking environmental samples from the source outward one can identify routes of contaminant migration from the site source areas and follow those, if they exist, to possible receptors. This was the process undertaken at the site. There is no route of migration for PCBs through the groundwater. This remedy will remove contaminated soils and sediments to a level which is protective of human health. Soils with PCB contamination between 1 and 10 ppm will be covered with 1 foot of clean soil and not available for contact with the public. If these subsurface soils need to be disturbed for some reason (i.e. installing a pipeline), the site management plan will specify how to do so in a way which would be protective of the public and the workers. It will also specify how to restore the disturbed area in a way which maintains the integrity of the remedy.

COMMENT 20: I have a concern about bis(2-Ethylhexyl)phthalate (the Commentor then read excerpts of the Material Safety Data Sheet for bis(2-Ethylhexyl)phthalate).

RESPONSE 20: Bis(2-Ethylhexyl)phthalate or "DEHP" is used in a wide variety of different materials including plastics, polyethylene, and polyvinyl chloride. The remedial investigation report concluded that the DEHP detected in the remedial investigation groundwater samples was likely a field or laboratory artifact that was introduced into the samples as a result of handling or processing. DEHP was not detected in any of the groundwater samples that were previously collected as part of the North Ponds Sediment Sampling (1991) or the Main Landfill Investigation (1994). A review of the concentrations detected in the RI groundwater samples, however, suggests that the concentrations are in general higher than would be expected for a field or laboratory artifact, but because no other phthalates were detected in the samples and because the results were relatively uniform (DEHP was detected in upgradient, sidegradient, and in the most downgradient wells from the Main Landfill), it is unlikely that DEHP is a constituent of concern in groundwater. To address this concern, a detailed review of the data package will be performed and the wells will be re-sampled. Also, as discussed in Comment/Response 10, as an element of the remedial program, the monitoring network will be enhanced with the installation of six new wells. These new wells will also be sampled for DEHP. The remedial design will assess whether further action is necessary to address this contaminant.

COMMENT 21: Will you be removing many trees?

RESPONSE 21: To access the areas to be subject to excavation and removal, the removal of trees will be required. Where possible, efforts will be made to refrain from removing mature trees. This will be addressed by the remedial design.

COMMENT 22: We are concerned that contaminated water is reaching our wells. We want our wells sampled and we want the public water extended to our residences. If we are not given public water, we want a long-term monitoring plan developed for our wells.

RESPONSE 22: Groundwater flow direction was assessed as a component of the remedial investigation. Based on that assessment, groundwater flow is from the site, toward Lake Ontario. Data does not suggest that groundwater from the site is flowing towards any residential wells, thus data does not support that private well sampling is necessary. To address this concern, however, as an element of the remedial program, six new wells will be installed (see Comment/Response 10). After the new wells are installed and all of the wells (new and existing) have been sampled, the NYSDEC in consultation with the NYSDOH will determine whether the new information indicates a need for further action regarding the groundwater at the site.

COMMENT 23: PCBs are an oil. Oils disperse in water. How can you say that PCBs do not migrate through the groundwater?

RESPONSE 23: PCBs are either oily liquids or solids that are mixtures of synthetic organic chemicals. Like petroleum-based oils, PCBs are less dense than water. Unlike petroleum-based oils, PCBs are insoluble in water, that is, they do not readily dissolve in water. For this reason, PCBs do not tend to migrate through groundwater.

COMMENT 24: I represent the neighboring Sithe Energies, Inc. Co-Generation Plant. I would like to point out that we have routinely sampled wells along the eastern boundary of the Alcan site. We have detected no contamination coming from the site.

RESPONSE 24: Comment noted.

COMMENT 25: One of the fish in Teal Marsh contained PCB concentrations at 2.85 ppm. I live on the downgradient of Teal Marsh. I am concerned that PCBs will get into my private well.

RESPONSE 25: See Response 10.

COMMENT 26: The residences north of Teal Marsh use an access road that is in close proximity to the some of the remediation of Tributary 63. What will happen if the excavations of Tributary 63 undermine the road?

RESPONSE 26: A condition of the remedial construction contract will be to repair/restore any damage incurred during the implementation of the remedy.

COMMENT 27: Truck traffic will be an issue. How will trucks leave the site?

RESPONSE 27: The haul route will be established during the remedial design. The remedial design will also insure all relevant precautions are taken, loads are properly manifested and that all loads are secured prior to leaving the site.

COMMENT 28: On the NYSDEC website, it says that most of the residents along the shoreline are seasonal residents on public water. This is not true. Most of the residents now live there year-round and none of them have public water. They all have private wells.

RESPONSE 28: The website text will be revised to clarify that the shoreline residences to the east and west are served by private wells, and to eliminate the reference to seasonal residents. The remedial design will more definitively define the extent of the public water distribution system.

COMMENT 29: I hunt deer and duck, and fish in the Teal Marsh area. I would like more sampling to be sure that it is safe to eat what I hunt and fish.

RESPONSE 29: The remedial program will include sampling of biota. This sampling program will extend to Teal Marsh. The specifics of the biota monitoring program (e.g., types of biota) will be addressed by the remedial design. Note that a fish advisory exists concerning consumption of fish from Lake Ontario. That fish advisory should be followed for Teal Marsh since it is hydraulically connected to Lake Ontario. Please refer to the hunting regulations guide for the Statewide advisory for consumption of waterfowl.

COMMENT 30: Did you sample any species larger than fish?

RESPONSE 30: During the 1997 North Ponds Investigation, one turtle was sampled from Marsh 2. The concentration of PCBs found in the tissue of that turtle was 3.2 ppm. This is significantly lower than the maximum concentration (27 ppm) found in the tissue of fish sampled from Marsh 2. The highest concentration (39 ppm) of PCB in fish tissue in OU-1 was found in Marsh 1.

Dr. Kestas Bendinska submitted a letter dated March 21,2006 which included the following comments:

COMMENT 31: There are communities northwest and north from the site where people live year long and do not have Oswego city water; this fact is misrepresented in all documents provided to the public.

RESPONSE 31: Concerning seasonal vs year-round residence, earlier documents would have been correct in the description that many were seasonal residents. Future descriptions will indicate year-round residence. It is understood that the residents of Milea Beach are not on public water but use private wells. Future descriptions will also indicate that the residents of Milea Beach use private wells as their source of potable water. Relative to the potential for groundwater impacts in these areas, see Response 22.

COMMENT 32: It is outrageous that officials have not visited the sites next to Novelis and have not talked to the officers of those communities since the start of the study and up to the present.

RESPONSE 32: A fact sheet was sent to the site contact list in 2002 citing the site's presence of the State's Registry of Inactive Hazardous Waste Disposal Sites and announcing the start of the remedial investigation. At that time there was no feedback from the community which suggested concern relative to the site. The Fact Sheet did include the phone numbers of NYSDEC and NYSDOH individuals to contact for more information or questions about the ongoing remedial program. As the remedial program moves forward, additional notices will be issued in an effort to keep the local community apprised of ongoing and planned activities.

COMMENT 33: The maps discussed include sediments and soil descriptions based on unreasonably low levels of the water table. Please take a few hours right now, in March of 2006 at the site, and you will see significant areas of "soil" completely submerged; all those areas underwater now plus one (1) foot above should be reclassified as sediments with 1 ppm levels allowed and not 10 ppm.

RESPONSE 33: The NYSDEC walked the site a few hours before the March 13, 2006 public meeting. Based upon that visit and previous field observations, it is agreed the proposed sediment delineations for North Pond 2 appear inaccurate in Figure 4 of the PRAP. However, it is acknowledged that these figures are only approximate, and the need for better sediment delineation in the North Pond 2 and other areas was noted in the PRAP, and remains in the ROD. A component of the design will be to more accurately delineate the boundary between the sediment and soils.

COMMENT 34: Our community is concerned by both the surface water which flows north and northwest towards our community via the Teal Marsh and artificial connections between the swamps that were installed to lower the water level of the swamps in recent years as well and by groundwater.

RESPONSE 34: Surface water and groundwater are not identifiable transport mechanisms of PCBs offsite. Also, the majority of sediment sample locations (20 out of 23) in Tributary 63 contain less than 8 ppm of PCBs, while 11 out of 23 were non-detect, with three more being below 1 ppm. Given these relatively low PCB concentrations in Tributary 63 and the finding of significantly lower average PCB levels in the fish tissues from the fish taken in Teal Marsh (as compared to Tributary 63) indicates that the sediments of Teal Marsh are not expected to contain significant levels of PCBs.

COMMENT 35: The surface water contamination in the Teal Marsh is documented by one fish having PCB levels at 2.85 ppm. We state here that very few fish samples were taken next to our community. The groundwater contamination is documented by 15 to 91 times over the level of DEHP, a known carcinogen and teratogen. The report presented to the public states that groundwater has "low level and localized" contamination. This is a gross negligent and an incorrect conclusion in every respect. First, contamination by SVOC's is in EVERY well tested by a minimum of 15 fold over the allowable limit. Second, that same report states on page seven (7) that "ground water generally flows to the northwest towards the lake". Thus, unless tested, one can not make claims that the contamination is localized, and no one tested that.

RESPONSE 35: Thirty fish samples were taken from three locations in Teal Marsh. The levels of PCB in fish tissue in Teal Marsh are consistent with what has been found regionally.

As discussed in Section 5.1.3 of the ROD, the levels of bis(2-Ethylhexyl)phthalate (DEHP) are higher than what would typically be expected solely from lab or sampling contamination. However, the fact that DEHP was not detected in previous sampling events and the relatively uniform presence of DEHP in all wells sampled in the RI raises questions regarding the validity of this round of DEHP data. The ROD calls for the wells to be resampled and depending upon the results of that ,and subsequent groundwater sampling events, the need to pursue further action will be evaluated.

COMMENT 36: We request that our community wells be examined for the PCB's and DEHP. We also request that the yearly testing is instituted for the follow-up plan. To eliminate the threat to human health, once and forever, we request that a water line is supplied to our community, and additional taxes are covered by Novelis. We also propose that this opportunity should be taken to bring Oswego city sewer and gas to the community, and the old road that does not go by Novelis is paved.

RESPONSE 36: There is no data to indicate PCB contamination in the groundwater and the DEHP data is inconsistent with what is known about the site and will be addressed as noted in Response 35. Also, known groundwater flow directions do not indicate residents of Milea Beach to be downgradient of OU-1 or OU-2. As described in Section 8 and elsewhere in the ROD, six new wells will be installed to better define groundwater flow directions around OU-1 and OU-2. No water, sewer or gas lines will be installed as a component of this remedy.

COMMENT 37: Our community is concerned by proposed work inhibiting/disrupting our commute to work and back, and also possible damage to the road that the community spent $9,900 to repair in 2005.

RESPONSE 37: Managing traffic flow patterns will be evaluated as part of the remedial design. Damage to existing roads and structures because of remedial activities will need to be repaired and will be part of the construction contract requirements.

James H. Stone submitted a letter dated March 21,2006 which included the following comments:

COMMENT 38: I am asking that fish advisory postings be placed in these areas immediately to reflect that PCB's were found in the fish sampling of the Teal Marsh and Tributary 63.

RESPONSE 38: A fish advisory is in place for all freshwater bodies in New York State, namely, "Eat no more than one meal (one-half pound) per week". A special, advisory is in place for Lake Ontario, namely that women of childbearing age, infants, and children under age 15 should not eat any fish from the Lake, and, additionally, there are specific species where no consumption at all is advised. The specific restrictions for Lake Ontario apply to its tributaries to the first barrier impassable by fish. The advisory is to be provided to anyone who obtains a license to fish in NYS. These advisories are based on the expectation that there are PCBs in varying amounts in all fish from NYS freshwaters, including Tributary 63 and Teal Marsh.

COMMENT 39: The New York State Freshwater Fishing Regulations booklet should also be updated for 2007 stating: warning - catch and release only, be added to the former Alcan property. As people continue to fish around the outfalls seasonally.

RESPONSE 39: See Response 38.

COMMENT 40: Follow-up fish sampling in Lake Ontario around the contaminated site and Teal Marsh shall be included in any follow-up surveys. Fish ingestion of elevated PCB levels does

complete the PRAP Section 5.3 Summary of Human Exposure Pathways. As kids we feasted on catches of bullheads, sunfish, bass and perch.

RESPONSE 40: The selected remedy includes a fish tissue monitoring program for OU-3 and Teal Marsh to assess specific environmental impacts from the site and the efficacy of the remedy. Fish tissue from Lake Ontario will not be included as the mobility of the Lake fish blurs any correlation with PCBs from any one source. Section 5.3 addresses current and future exposure pathways that can be addressed in the present. There is inadequate information to address past exposures.

COMMENT 41: Signage shall be posted at all State Pollutant Discharge Elimination System (SPDES) outfalls and fences, stating the area is a Class 2 Hazardous Waste Site containing PCBs at the ponds and marshes.

RESPONSE 41: The current SPDES discharge points are not associated with the Class 2 Inactive Hazardous Waste Disposal Site and the PCB contaminated areas are being addressed by the remedy. Your request relative to the SPDES discharges will be forwarded to the NYSDEC Division of Water which is responsible for the SPDES program.

COMMENT 42: The fish advisory posting is needed.

RESPONSE 42: The fish advisory is provided to every licensed fisherman, available on the NYSDOH website and can be requested by e-mail at BTSA@health.state.ny.us.

COMMENT 43: The PRAP on Page 5, Section 3.1, states PCB contamination of Tributary 63 has been documented, however, it is unknown when and how PCBs were released into Tributary 63. We believe it was purposely dumped into Tributary 63 after possible large spills at the plant. We remember stories from our early year-round residents who, driving out the Cottage Access Road, found vacuum trucks discharging their liquid load of waste into Tributary 63 at the area of the culverts on the access road. I further believe since some PCBs were detected >1 ppm at Tributary 63 in the culvert area, and that north of the culvert area of Tributary 63 the levels of PCBs returned < 1 ppm there is strong chance that PCB contamination migrated through the culvert area running into the Teal Marsh.

RESPONSE 43: So noted.

COMMENT 44: Even though the RI report showed PCBs levels < 1 ppm downstream of the culvert area in the 2002-2004 sample periods, we believe the significant water flow rate through the culverts during the winter's end runoff, early spring runoff, and the rainy season of November, runoffs have been strong enough to transport PCBs in sediments much further into Teal Marsh. We are only talking about transport of contaminants northwest into the Teal Marsh another 1500- 1800 feet over 40 years to reach the aquifer areas where our wells are for Hibbert Shores and Milea Beach.

RESPONSE 44: Present sediment and fish tissue data do not indicate that Teal Marsh is significantly impacted by PCB contamination from Tributary 63. PCBs are not soluble in

groundwater. There is nothing to indicate that PCBs from OU-1 or OU-3 would be present in private residential wells at Milea Beach. See also Response 10 and 22.

COMMENT 45: Our wells are generally all located as stated in the PRAP, Page 7, 5.1.1 "in the upper zone of rock, more highly fractured than at depth with area domestic wells being in the first 75 feet of bedrock. These wells are all at the northern end of Teal Marsh. The Hibbert Shores area is due west of the site with a downstream gradient causing surface water to run down, pool up, and move behind the Hibbert Shores cottages, passing through a culvert, run under the west cottage access road and entering Teal Marsh behind the east end of Milea Beach properties. Construction blasting Alcan's lake intake water lines may have further fractured the Oswego sandstone in the area allowing for groundwater migration to the northwest.

RESPONSE 45: Alcan's (Novellis') intake water lines are side-gradient/down-gradient of the residents of Milea Beach. Groundwater at the intake water lines would not reach their wells. The groundwater from OU-1 and OU2 is not moving toward Milea Beach. The pumping rates of the private wells would not be strong enough to reverse the gradient of the groundwater at the site.

COMMENT 46: In the PRAP, Page 11, Section 6 & 7 "6 NYCRR Part 375-1.10, it stated goals must eliminate any and all significant threats to public health and/or the environment and the selected remedy must be protective of human health and the environment; be cost effective, comply with other statutory requirements and utilize permanent solutions, alternate technologies or resource recovery technologies to the maximum extent practicable."

RESPONSE 46: This remedy meets these stated goals.

COMMENT 47: My belief is to completely remove the threat to human health, is to provide those who live at Milea Beach and Hibbert Shores with a purified water supply: i.e. Oswego City water. This would be a permanent solution to any human health threat.

RESPONSE 47: The information obtained by investigations at the Alcan site do not indicate a threat to human health from consumption of groundwater by area residents, as noted in Responses 22 and 36.

COMMENT 48: My belief is that public health refers to both physical and mental health. The threat of PCBs is very disturbing to the residents, especially when the site has been classified a 2A or 2 Hazardous Waste Site for almost 20 years without the area residents knowing about it.

RESPONSE 48: It is understood that residing in the vicinity of an inactive waste disposal site is stressful; however, a completed current or future exposure pathway is not indicated by information obtained by investigations of the Alcan site. Two fact sheets and a public meeting have communicated information relative to the site to the general public, including the residents of Milea Beach. NYSDEC and NYSDOH contact phone numbers are provided for questions and the document repositories give you full access to the available reports.

COMMENT 49: The environmental threat can be adequately protected by a modified Alternative Plan 2. As written the Alternative Plan 2 addresses the highest levels of PCBs and groundwater

contamination in the areas that differ from the DEC PRAP Alternative Plan 3. An alternative technique could be an addition of clean clay soil deposited on top of the areas not further being excavated. (Extended excavations would reset the natural process of growth in the area further). As in Alternative Plan 3, the cost saving of Alternative Plan 2 versus Alternative Plan 3 should be used for construction of the Oswego City water lines from Lake Road North (County Route 1A) to the cottages at Milea Beach and Hibbert Shores. Water hookups to the cottages shall be included. Water will then be billed as used by the owners. This would be considered as part of the environmental easement, that Alcan Corporation has done all practicable.

RESPONSE 49: Your proposed remedy would not be protective of the environment. The selected remedy is protective of both human health and the environment. As stated previously, there is no information to indicate that PCB contamination from the Alcan site would ever reach the residential wells at Milea Beach.

COMMENT 50: Prior to the start of any remediation the Cottage Access Road shall be upgraded to allow easy access to the Lake Road North (County Route 1 A), away from the remediation.

RESPONSE 50: See Response 37.

COMMENT 51: During the remediation of Tributary 63 any damage to this road shall be fully restored. The area culverts are 40 years old and may not withstand heavy excavation equipment.

RESPONSE 51: Any damage to existing roads or structures due to remedial activities will be repaired as part of the remedial construction.

APPENDIX B

Administrative Record

Administrative Record

Alcan Sheet and Plate Company
Operable Unit No. 1 - North Ponds and Marshes
Operable Unit No. 2 - Main Landfill
Operable Unit No. 3 - South Pond, Marsh and Tributary 63
Site No. 7-38-015

1. Proposed Remedial Action Plan for the Alcan Sheet and Plate Company site, OU-1, OU-2, and OU-3, dated February 2006, prepared by the NYSDEC.

2. Order on Consent, Index No.A7-0395-9908, between NYSDEC and Alcan Aluminum Corporation, executed on October 7, 2000.

3. North Ponds Investigation Work Plan, dated December 1992, prepared by Dames & Moore.

4. Main Landfill Investigation, dated May 1994, prepared by Dames and Moore.

5. North Ponds Investigation Report, Vol. I of III, dated November 17, 1997, prepared by Dames and Moore.

6. North Ponds Investigation Report, Vol. II of III, dated November 17, 1997, prepared by Dames and Moore.

7. North Ponds Investigation Report, Vol. III of III, dated November 17, 1997, prepared by Dames and Moore.

8. Focused Remedial Investigation Report, Vol. 1 of 3, dated January 2004, prepared by Blasland, Bouck & Lee (BBL).

9. Focused Remedial Investigation Report, Vol. 2 of 3, dated January 2004, prepared by Blasland, Bouck & Lee (BBL).

10. Focused Remedial Investigation Report, Vol. 3 of 3, dated January 2004, prepared by Blasland, Bouck & Lee (BBL).

11. Focused Feasibility Study, dated February 2006, prepared by BBL.