

## GENERAL SITE INFORMATION, CHARACTERISTICS, AND STATUS

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<b>Project Name</b>	<b><u>CUMBERLAND BAY</u></b>	<b>ProjectID:</b> 02-03
<b>Last Updated:</b>	07/14/04	
<b>City:</b>	Plattsburgh	
<b>County:</b>	Clinton	
<b>State:</b>	NY	
<b>Country:</b>	USA	
<b>Bodies of Water:</b>	Cumberland Bay; Lake Champlain	
<b>US EPA Region:</b>	II	
<b>Status (Active, Complete, or Monitoring Only):</b>	Complete	
<b>Date On NPL:</b>	N/A	
<b>ROD/ESD Date:</b>	NYS ROD, 1997	
<b>Operable Unit:</b>	NYS OU-1	
<b>Areas of Concern (length or acres):</b>	About 57 acres within a 75-acre area that included all underwater areas within and along the northwestern part of Cumberland Bay that contain accumulations of sludge from local wood processing industries. The primary area of concern was divided into four distinct areas: the Mudflats, Breakwater, Dock, and Shoreline/Wetlands areas. The Mudflats covered about 31 acres and contained an estimated 55,800 to 76,000 cy of sludge ranging in thickness from 0.25 to 3 feet and having an average PCB concentration of less than 50 ppm. The Breakwater area covered about 12 acres and contained an estimated 23,500 to 28,600 cy of sludge ranging in depth from 0.25 to 4 feet and having an average PCB concentration of less than 50 ppm. The Dock area covered approximately 9 acres and contained an estimated 50,900 to 61,100 cy of sludge ranging in thickness from 0.25 to 12 feet and having an average PCB concentration of greater than 50 ppm. PCB concentrations in many localized areas within the Dock area ranged from 100 to 250 ppm and, in one location, up to 13,000 ppm. The Dock area was located in proximity to the former Wilcox Dock (the former dock is now an earthen, vegetated area; the border of the former dock is still visible). The Shorelines/Wetlands area covered about 7 acres and contained an estimated 20,600 to 41,500 cy of sludge ranging in thickness from 0.25 to 4 feet and having an average PCB concentration of less than 50 ppm. The total area to be dredged was approximately 34 acres; removal in the remaining areas would be by using dry or wet excavation techniques.	
<b>Other Characteristics of Water Body:</b>	Water depths reach a maximum of 19 feet in the areas of concern.	
<b>Contaminants of Concern:</b>	PCBs (1242); also present below action levels are phthalates, PAHs, PCDDs and PCDFs.	
<b>Source of Contamination:</b>	Process wastewaters from local wood processing industries, including Georgia-Pacific's tissue manufacturing facility in Plattsburgh. Recycling of PCB-containing carbonless copy paper was one source of the PCBs.	
<b>Contaminated Area Physical Characteristics:</b>	PCB-contaminated sludge bed composed of wood pulp and chips that occupies 34 acres of lake bottom in the bay adjacent to Wilcox Dock. PCBs were measured up to 1,850 ppm in sludge (as reported in the 1997 ROD); PCB-contaminated wood chips were washing up on surrounding beaches; the sludge bed was 2 to 10 feet thick and consisted of varying mixtures of sediment, paper-making residuals, wood chips, and sawdust.	
<b>Type of Regulatory Action:</b>	NYS Hazardous Waste Site. Final. State Fund-Lead.	
<b>Overall Status Summary:</b>	In November 1994, the NYSDEC added the site to its Registry of Inactive Hazardous Waste sites making the site eligible for NY State funding. A Site Characterization and Feasibility Study was completed in March 1996 under the NYSDEC Superfund Standby Program. A NYS ROD	

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was then issued in December 1997. The target was a 34-acre sludge bed in the bay that was found to contain PCB-contaminated wood pulp and wood chips. The bed was initially estimated to contain 93,000 cy of material. The remedy selected by the NYSDEC included: 1) isolating the sludge bed with temporary sheet piling and silt curtains, 2) removing the sludge bed to the underlying sand layer by a combination of hydraulic dredging and dewatering/dry excavation, 3) land-based dewatering and water treatment, and 4) disposal of dewatered sediment at commercial landfills. The remedy was estimated to cost \$18.3 million (present worth) and take two years to complete. Georgia-Pacific agreed to a cash settlement of \$9 million. The \$18.3 million is based on disposal of 90% of the dewatered sludge as non-TSCA (<50 ppm) waste.

An IRM consisting of removing PCB-contaminated wood chips from bay beaches had been implemented periodically since 1995, with 220 tons removed in 1995 and 1996.

Citizen concerns and high water levels in 1998, among other factors, pushed remediation into 1999. Seven bids were received in December 1998, ranging from \$23.2 to \$35.4 million. The low bidder was Severson Environmental Services. The NYSDEC issued a contract to Severson in March 1999 and site preparation activities began in April 1999.

Also in April 1999, the NYSDEC collected yellow perch for PCB analysis near Wilcox Dock. Eleven samples were collected. PCB concentrations ranged from non-detect (at a detection limit of 0.05 ppm) to 5.6 ppm and averaged 0.96 ppm. These levels are lower than for yellow perch collected from Cumberland Bay in 1994. In the 1994 sampling event, 20 yellow perch had PCB concentrations ranging from 1.37 ppm to 18 ppm and averaged 5.4 ppm.

Dredging began July 12, 1999, following the installation of sediment handling and wastewater treatment systems. Disposal of dewatered sludge was to TSCA and non-TSCA landfills in Model City, NY and BFI (Quebec, Canada), respectively. In-water dredging was stopped in early December 1999. In-situ volume removed was between 141,000 and 151,000 cy using two horizontal auger dredges simultaneously. Removal was at 3.5% solids. Project cost for 1999 was estimated at \$28 million. After the first month of dredging, the contractor shifted to a 24-hour per day, five-day per week schedule, plus one shift on Saturday. This resulted in 20-22 hours during week days (and 2-4 hours for maintenance) and 10 hours on Saturday being available for dredging.

The removal contractor originally anticipated project completion by the end of December 1999. Preliminary findings from bottom surveys following 1999 dredging indicated that the bottom was generally clean of wood pulp and chips. However, core samples and diver inspections performed in November 1999 showed areas where: 1) wind rowing of sludge had occurred; 2) the dredge head had bridged, leaving sludge in bottom valleys; and 3) a thin hard pan (~4 inches thick) covered sludge layers of up to 4 feet thick. As a result of these findings, further dredging was scheduled for 2000. Prior to the start of dredging in Spring 2000, additional sampling was performed. Unconsolidated material 1 to 3 feet thick and consolidated material up to 7 inches thick were identified and located across the dredge area. Additionally, consolidated material up to 6 feet thick was identified in Bay bottom depressions inaccessible to the dredge (these materials were targeted for removal by divers using hand-held suction lines).

Remobilization of equipment began in April 2000 and hydraulic dredging began in early May. The NYSDEC originally anticipated that dredging would be completed by the end of July; it continued however, into October. Hydraulic dredging was used to remove localized areas of sludge until about mid-September; diver assisted removal was then used until the removal operation was stopped on October 5. Dredging was performed 24 hours per day, 5 days per

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week until the end of July when operations were scaled back to 10-12 hours per day. As operations were systematically scaled back over the final two months of the project, excess equipment was moved by Severson to the Fox River SMU 56/57 project.

The estimated total volume of sludge bed material removed was approximately 195,000 cy containing an estimated 20,100 pounds of PCBs, at a cost of about \$34M. This equates to 25-30 cy per hour per dredge averaged over the two years of dredging. A total of 140,000 tons of material (combined sludge bed material and wetland and beach cleanup materials) was shipped offsite for disposal (39,171 tons TSCA; 97,996 tons non-TSCA).

Year 2000 confirmation samples were collected by the NYSDEC to assist in determining areas where dredging could be considered complete. The collection of confirmation samples and acting on the results is a shift from the original, specified strategy of targeting a depth of removal only.

Following 2000 dredging, 115 confirmation cores were collected (indications are that a 50 ft. x 50 ft. grid was used). Analysis was not performed for 73 of the 115 cores as a result of either the collection point being located on shore (5 cores) or the core material being visually verified to contain only sand (68 cores). According to the NYSDEC, "Since it was previously established that sand is not PCB contaminated, no core sample exhibiting sand only was tested for PCBs." The remaining 42 cores yielded 51 samples (two samples each were collected from eight of the cores) that were analyzed for PCBs. The results ranged from 0.04 ppm to 18.0 ppm and averaged 6.82 ppm.

A long-term monitoring plan was prepared for Cumberland Bay and adjacent areas of Lake Champlain that required sampling to begin in Fall 2001. The goals of the monitoring program are: "a) to clearly document the effectiveness of the sludge bed PCB remediation activities, and b) to support revision/removal of the Cumberland Bay fish advisory." The program is to include the collection of fish tissue and zebra mussel samples and use of passive in-situ concentration extraction samplers as a method of comparison. Water column samples will also be collected. All samples will be subject to PCB analysis. The program is currently scheduled to end following sampling in Fall 2004.

**Remedial Action Planned:** ☒

**Risk Assessment:** ☒

**Remedial Action Implemented:** ☒

**Status of Dredging** ☐

**PRPs:** ☒

**Contacts:** ☒

**References:** ☒

**Modeling:** ☐

**Fishing Advisory:** ☒

**Key Conditions:** commercial landfill, dredging, water handling limitations, wetlands

## REMEDIAL ACTION PLANNED

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<b>Target Sediment Cleanup Standards (TSCS):</b>	Not defined. Target is complete removal of the sludge bed down to the underlying sand layer.	
<b>How TSCS Established:</b>	Protection for completed pathways, this includes: 1) ingestion of fish, 2) incidental ingestion of contaminated wood chips washed ashore, and 3) direct contact with the wood chips washing ashore and contact with the waste bed itself ( ROD, Dec 1997 ). This further statement is included: "... sludge bed is a significant source of PCB contamination to fish in the lake. Fish or wildlife that consume PCB contaminated fish have been shown to suffer a host of adverse toxicological effects."	
<b>Target Bank and Floodplain Cleanup Levels (if applicable):</b>	N/A	
<b>Other Target:</b>		
<b>Environmental Sample Data References:</b>	<ul style="list-style-type: none"><li>• <b>Sediment:</b> Reference A-176</li><li>• <b>Water:</b></li><li>• <b>Fish:</b></li></ul>	
<b>Estimated Target Volume:</b>	93,000 cy (1997 ROD); 130,000 cy from 34 acres of sludge bed and 15,000 cy from shoreline (1998 Contract Documents).	
<b>Planned Disposal Method:</b>	Reportedly disposal at a commercial landfill located near Buffalo, NY.	
<b>Estimated Calendar Time to Implement Remedy:</b>	Not targeted to begin until summer 1999 at the earliest. Two construction seasons are needed to complete sludge bed removal (1999-2000); wetland restoration is targeted for 2001.	
<b>Estimated Time to Implement Remedy:</b>	An estimated two years are anticipated for sludge bed removal and shoreline excavation; one year is needed to restore wetlands. Site preparation work is scheduled to begin in April 1999.	
<b>Estimated Cost to Implement Remedy:</b>	\$18.3 million (present worth) (assumes 90% of material <50 ppm and 10% >50 ppm). Low bidder estimated costs at \$23.2 million.	
<b>Stated Remedial Action Objectives (and Source):</b>	<p>(ROD, Dec. 1997): The goal is to restore the site to pre-disposal conditions, to the extent feasible and authorized by law, at a minimum, the remedy should eliminate or mitigate all significant threats to the public health and to the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles. The goals selected for this site are to:</p> <ul style="list-style-type: none"><li>• Mitigate the immediate threat to the environment posed by the PCB-contaminated sludge bed;</li><li>• Rapidly and significantly reduce human health and environmental risks; and</li><li>• Prevent further environmental degradation resulting from this known source of PCB contamination.</li></ul>	
<b>Measures of Success to be Used:</b>	Not identified	

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<b>Planned Monitoring and Restoration:</b>	Disturbed wetlands are to be restored following sludge bed removal.	
<b>Agency Position on Sediment Removal (and Source):</b>	<p>Several statements of interest from the ROD, December 1997:</p> <p>"Removal and off-site disposal [of the sludge bed] is the most permanent and effective remedy for restoring Cumberland Bay and the lake for unrestricted future use."</p> <p>"The specific site conditions including the depth of water, site location and the sludge bed's physical properties make it very amenable to hydraulic dredging techniques. It was determined that this technique would cause the least disruption of the lake bottom and keep resuspension of sediments to a minimum."</p> <p>"Prior to dredging, 2,800 feet of temporary sheet pile would be installed along the perimeter of the dredge area to provide a lower energy environment in which to perform dredging. This would allow the dredge to be more stable in the water, enhancing the effectiveness of precision dredging techniques. If resuspension should occur, the sheet pile wall would limit the transport of suspended material to within the current work area."</p> <p>Requirements from the Contract Documents (Reference A-414):</p> <ul style="list-style-type: none"><li>• The bid is based on removal of 130,000 cy of sludge bed, by hydraulic dredging. Two dredges operating simultaneously is a requirement. Removal will be to a depth (grade) indicated on drawings. Over-dredging is specified not to exceed 3 inches. When the contractor believes that a sub-area is completed and the specified grade has been reached, the engineer will visually inspect the dredged sub-area and will collect one post-dredging sample from each 10,000 ft.2 area. The sample will be inspected visually for the presence or absence of sludge, but apparently will not be analyzed. The contractor will be paid based on pre- and post-dredging sounding surveys conducted by the engineer to define the in-situ volume removed. The contract documents are based on removal of 130,000 in-situ cy by dredging and 15,000 in-situ cy from shoreline. The 145,000 cy is presumed to produce 117,876 tons of dewatered solids for disposal, with 98,200 tons (83.3%) being non-TSCA and 19,676 tons (16.7%) being TSCA.</li><li>• The work will be performed in Level C protection.</li><li>• Portadams or equivalent are specified to enable dewatering of the shoreline excavation areas.</li><li>• Extensive turbidity, TSS, and air monitoring during dredging are specified.</li><li>• There is no backfilling of dredged areas.</li><li>• The sludge bed dredging is to be completed by October 1, 2000, otherwise the contractor is subject to penalties and damage for delays. Dredging in the Dock Work Area, which reportedly has the highest PCB concentrations and will require sheetpiling, must be completed by November 1, 1999.</li></ul>	

## ***RISK ASSESSMENT***

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***RA Type:*** Baseline Human Health & Ecological; Public Health

***RA Status:*** Complete

***RA Objectives:*** (Source: Reference A-214): "The HRA was performed to verify the necessity of the fish advisories, to identify other potential human exposure pathways within the area of the sludge bed, and to determine whether the Site may pose a risk to human health based on data collected as part of the Site Characterization or previous investigations performed by or on behalf of the State of New York."

***Company  
Performing RA:*** Rust Environment and Infrastructure, Inc.

***RA Reference Report:*** A-214

***RA Summary and  
Conclusions:*** HUMAN HEALTH RISK ASSESSMENT

Two exposure pathways were identified as posing potential risks to human health: a) direct contact with the sludge bed and surface water (HQ=5.3) and b) recreational fishing (HQ=290; excess cancer risk=3.4E-03).

### ECOLOGICAL RISK ASSESSMENT

A toxicity analysis was performed for both mink and osprey based on the average fish tissue PCB concentration of 2.84 ppm from fish samples collected from Cumberland Bay in September 1994. Hazard quotients were then calculated to be 10.38 and 8.27 for mink and osprey, respectively.

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<b>Physical Target:</b>	In the Bay, the target is complete removal of the sludge bed down to the underlying sand layer. In wetlands, PCBs in concentrations greater than 10 ppm.	
<b>Goals:</b>	As stated in the ROD (Reference A-193): <ul style="list-style-type: none"><li>• Mitigate the immediate threat to the environment posed by the PCB contaminated sludge bed;</li><li>• Rapidly and significantly reduce human health and environmental risks; and</li><li>• Prevent further environmental degradation resulting from this known source of PCB contamination.</li></ul>	
<b>Primary Contractor:</b>	Sevenson Environmental Services	
<b>Other Contractors:</b>	Earth Tech, Inc. (oversight); Buffalo Industrial Diving Co. (dive team).	
<b>Generic Remediation Method:</b>	Hydraulic dredging; diver-assisted	
<b>Equipment:</b>	Two hydraulic dredges, each attached with an 8-foot wide, 8-inch diameter auger head; one using a 10-inch discharge line and one using a 12-inch discharge line. Two sides of sheetpile, 500' each, were installed in the Bay. Primary purpose was as a wave break, which proved quite effective. Silt curtains were also deployed around targeted dredging areas. These were all installed at the beginning of the project, since the bay remained quite calm, in part due to the sheetpile.	
<b>Material Handling:</b>	<p>Two horizontal auger dredges, one 10-inch, one 12-inch; operating simultaneously. The 10-inch discharged at 2,000-2,500 gpm. The 12-inch discharged at 2,800-4,000 gpm. Removal was typically at 3-5% solids. The floating discharge pipeline ran to shore and into preliminary material separation units located on the former Wilcox Dock area; the units, in series, were shaker screens to remove oversized material to less than ¼", hydrocyclones to remove sand, and then Frac tanks with mixers. Resultant 5-10% solids were pumped across a road to the main dewatering and WWTF. A total of 260,000 gallons of storage capacity was available in the preliminary units.</p> <p>Dewatering of the resulting sediment slurry was performed in a 28,800 ft² temporary solids dewatering treatment building using chemical addition, settling, and mechanical dewatering with eight recessed-plate filter presses.</p>	
<b>Volume Removed:</b>	195,000 cy	
<b>Calendar Time:</b>	April thru December 1999; April thru October 2000.	
<b>Time To Implement:</b>	Initial site mobilization started in April 1999, including installation of the wastewater treatment facility. After the first month of dredging (on or about 8/12/99), Sevenson went to a 24-hour per day, five day per week schedule, which consisted of 10-11 hours of dredging with 1-2 hours of maintenance each during two 12-hour shifts per day. Saturday was a 10-hour dredging day, except every third Saturday which was dedicated to cleaning the 8 filter presses.	
<b>Total Cost:</b>	\$34 million; about \$174 per cy	
<b>Dredging Cost:</b>	Not separately available.	
<b>Disposal of Sediment:</b>	Dewatered TSCA sediment was sent to Model City, NY by truck at about \$120 per ton transport and disposal. Dewatered non-TSCA sediment was sent by truck to Horizon Environment in Grand Piles, Quebec. About 30% was TSCA (39,171 tons) and 70% was non-TSCA (97,996 tons) (original	



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estimate was 10% TSCA).

**Volume of Water:** 160 million gallons in 1999.

**Method of Water Treatment:** The dredges discharged into floating pipelines, one 10-inch and one 12-inch diameter which ran to shore and into preliminary material separation units located on the former Wilcox Dock area; the units, in series, were shaker screens, hydrocyclones, and Frac tanks with mixers. Resultant 5-10% solids were pumped across the road to the main dewatering and WWTF area. A total of 260,000 gallons of storage capacity was available in the preliminary units.

According to the NYSDEC Project Summary Report (Reference A-673): "Two parallel treatment systems for TSCA and non-TSCA waste streams were anticipated because it was likely that both types of waste streams would be dredged concurrently. However, during the dredging operation it was difficult to distinguish whether TSCA or non-TSCA sludge was being removed. Thus, only one system was operated. As a result of testing the processed sludge from the treatment system filter presses, the system could be converted back and forth to handle TSCA or non-TSCA waste. This operation maximized the efficiency of operations."

The primary WWTF area was about 6 acres. Severson sampled for PCBs in advance, then geosynthetic was put down across the entire 6 acres, then fill. At project completion, Severson was required to remove down to and including the geosynthetic, then resample to confirm that the WWTF operation didn't contaminate the area.

Main dewatering and WWTF consisted of (in sequence):

- Polymer addition in the inlet line (to 100 ppm) to promote flocculation
- Equalization tanks
- 8 recessed plate filter presses (220 cu. Ft./press)
- Ammonia stripping towers
- Sand filters and diatomaceous earth (about 10 tanks total) (effluent discharge limits were reportedly met without using the diatomaceous earth filters)
- Carbon (at least 4 tanks)

The WWTF was designed to treat up to 2.9 million gpd. The NYSDEC Water Quality Certification permit allowed 2,000 gpm and 2.88 million gpd. The daily total effluent averaged 1.28 mgd with a high of 2.46 mgd. The total water treated was 240.5 million gallons. The average combined discharge flow from the two dredges was about 1,450 gpm. The WWTF was limited to 2,000 gpm throughput. When this throughput was exceeded (i.e., when dredges hit flow rate peaks), the dredges were stopped. Dredging could have been faster but was limited by the WWTF. Each dredge was rated to pump at 2,500 gpm or more at maximum output. The actual dredging time averaged about 60% of the time allocated for dredging. The dredges could be throttled down, with slower rotation, to about 800 gpm per dredge.

The WWTF consisted of 22 tanks of 21,000 gallons capacity each, giving the system about one half-million gallon holding capacity at any time. Another five tanks with capacities of 110,000 gallons each were also added. The discharge limit for PCBs was 0.065 ug/L and a not to exceed maximum daily discharge limit of 0.3 ug/L. Only two water samples were above the discharge limit.

To check PCB content of dewatered solids, one sample of solids per hour was collected from each of three locations, i.e., shaker screenings, sand pile from centrifuges, and dewatered sludge exiting the discharge conveyor, and composited into a single 8-hour shift sample for waste classification. Samples were dried and analyzed using immuno-assay kits and analyzed for <2 or >50 ppm PCBs



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	with a 12-hour turnaround time.	
<b>Water Discharge Limit:</b>	Discharge permit limits were for TSS and PCBs (<0.3 ppb PCBs; with a detection limit of 65 ppt).	
<b>Air Monitoring During Remediation:</b>	Air monitoring was performed; results have not been obtained.	
<b>Water Monitoring During Remediation:</b>	Water column monitoring for turbidity and TSS was performed outside the work zone, inside the work zone, and 50 feet behind each active dredge. If the TSS limit was exceeded, water samples were collected and analyzed for total PCBs. The TSS limit was exceeded on a few occasions, although it has yet to be confirmed what corrective actions, if any, may have been implemented. Background samples were collected between the perimeter sheetpile and silt curtains; sampling for dredge operations was performed inside and outside of the dredge area silt curtains. Monitoring required shadowing the dredge since no downstream position existed, making reproducing the monitoring locations to adequately evaluate the water column monitoring program difficult.	
<b>Outcome:</b>	<p>Reportedly, 195,000 cy of paper sludge were removed from a 57-acre target area in Cumberland Bay, near the former Wilcox Dock area. Removal amounts were based on surveyed elevations. The NYSDEC oversight contractor, Earth Tech, surveyed elevations as the project progressed. Earth Tech used GPS with a "Hi-Pak" program. The NYSDEC would not work jointly with the contractor to provide surveys of dredged areas. The contractor performed independent surveys daily using the same equipment and obtained results that varied from those provided by Earth Tech.</p> <p>Final efforts involved some residual "hot spot" removal with a dive team and one dredge on a time and material basis. Earth Tech directed the contractor where to dredge. This residual removal was based primarily on elevation data. Reportedly, the contractor suggested to NYSDEC that additional removal may not make sense if the residual material is topsoil or uncontaminated sand and that the NYSDEC should measure PCBs before directing removal. The NYSDEC eventually followed the contractor's suggestions, but did not disclose the target PCB value.</p> <p>(Source: Reference A-673): "During the dredging operation, a rigorous sampling program was implemented to evaluate the bottom of the dredged bay area. This program was conducted in four phases in 1999 and 2000, each of which is discussed below."</p> <p>Phase I</p> <p>"Phase I sampling began after dredging activities were completed in November 1999 to determine the presence of remaining consolidated sludge. The results of the Phase I sampling proved not to be representative of the remaining sludge, as it was discovered that the sampling tool used did not retain all of the sludge present during retrieval. The sampling tool penetrated the sludge and retrieved bottom sand having low or no PCB concentrations."</p> <p>Phase II</p> <p>"A second phase of sampling was conducted at the end of November 1999 to determine residual PCB concentration in the bottom of the bay. Phase II sampling consisted of sampling the entire bottom of the work area on a 50-foot grid. At the same time, core samples were collected to obtain information about the bottom sediment. As the sampling continued, Areas 1B, 2B, 3A, 3B, 4A, and 4B were confirmed to be sludge free. However, the sampling team found patches of consolidated sludge up to 7 inches deep in Areas 1A, 2A, 5, 6, and 7. Since the Phase II sampling consisted of many more sample locations than the Phase I sampling, more areas were identified that still contained sludge. Also, certain areas missed during the 1999 dredging operation were identified along the border of Areas 4A/4B and 1A/1B."</p>	

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“Phase II sampling was assisted by divers who retrieved samples in locations where conventional sampling equipment was not effective.”

“The Breakwater sludge area was originally believed to have been dredged to a hard bottom since the sampling device encountered refusal. As a result of using divers during Phase II sampling, it was determined this area consisted of hard crust underlain by up to 4 feet of sludge with PCB at concentrations up to 54 ppm. This hard crust was located at a depth of 10 to 16 feet below the water surface and consisted of well compacted sand, paper pulp, and silt. Since the hydraulic dredge did not break through the crust in 1999, its presence was incorrectly interpreted as the natural bottom of the lake.”

### Phase III

“Based on 1999 findings, the DEC decided to resume PCB sampling in Spring 2000 to further determine locations of residual sludge, the thickness and PCB content of this sludge. The project team conducted a Phase III sampling program, which used a penetrating rod and a disc to determine the depth of sludge and then used a coring device to determine the amount of sludge remaining.”

“The sampling crews found 1 to 3 feet of unconsolidated material and up to 7 inches of consolidated sludge in parts of Areas 1A, 2A, 5, 6, and 7. The consolidated sludge was also found in depressions scattered along the bottom of the lake in Areas 2A and 2B. These depressions were 1 to 6 feet deep and contained PCBs ranging from less than 12 ppm to 54 ppm. Since the hydraulic auger dredge was bridging these depressions, hand-held dredging was used to remove sludge from these areas.”

“In May 2000, divers were used more extensively to identify and locate remaining sludge. The divers reported the presence of additional windows of sludge remaining after the 1999 dredging operations in Areas 2A and 7. Based on the core sampling, additional consolidated sludge was located in Areas 2A, 5, and 7. Some of these areas were believed to be free of sludge in 1999, but it appears sludge in these areas was missed by the hydraulic dredge because winds blew it off its designated dredge course. The samples collected from the other work areas were found to have gravel, sand, or detritus material with little to no visible traces of sludge, wood chips, or paper pulp.”

“A limited portion of Area 5 contained materials with PCB concentrations up to 132 ppm. This area was directly adjacent to the waterfront earthen fill area constructed by Georgia-Pacific, which was being eroded by high water.”

### Phase IV

“A final (Phase IV) sampling event took place during Summer and Fall 2000. The purpose of the Phase IV sampling was to compare final sediments and concentrations taken during the Remedial Investigation and design. The results of the Phase IV core sampling and inspection by divers indicated that a few areas still needed to be dredged. These areas were then dredged by divers using hand-held hydraulic dredge lines. The hand-held dredging proved effective in these areas that had been identified as difficult to dredge using the hydraulic auger.”

“The results of the Phase IV sampling showed an average PCB concentration across the sampling grid of 6-7 ppm, with only a few areas exceeding 10 ppm and one exceeding 18 ppm. In addition, a number of confirmation samples were collected of the bottom sands and evaluated in the field. Based on data from this and previous sampling events, the native sands beneath the sludge bed

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<b>Restoration and Post-Monitoring:</b>	<p>had little or no PCB-contaminated materials. Consequently, these sands were not dredged.”</p> <p>(Source: Reference A-673): “Wetlands were restored per the wetlands mitigation plan in accordance with the U.S. Army Corps of Engineers permit for the site.”</p> <p>“The shoreline and wetlands area were restored to prerediation grades by removing the temporary access roads, backfilling the excavated area with sand and a vegetative substrate, replacing the riprap, and implementing a wetlands mitigation plan.”</p> <p>“Wetlands restoration efforts began in August 2000 and were completed in October 2000, and included restoring the area to the original grade, placing a vegetative substrate, and revegetating the area with emergent wetland plants and deciduous plants.”</p> <p>A post-monitoring plan was prepared for the site and issued in January 2001. The plan requires the collection of fish tissue, zebra mussel, and water column samples beginning in Fall 2001 and ending in Fall 2004. Additionally, samples will be collected using a passive in-situ concentration extraction sampler (PISCES) to provide comparison with fish tissue and zebra mussel results. Samples will be collected at nine different locations within Cumberland Bay and nearby areas of Lake Champlain. Sampling was to occur during both Spring and Fall 2001, with sampling during the Fall only for each subsequent year through 2004. Fish tissue, zebra mussel, and surface water samples will be collected during each sampling event; sampling using the PISCES will be performed during the Fall 2001 and 2004 sampling events only. Annual reports are to be submitted to NYSDEC following each year of sampling.</p>	
<b>Site-Specific Difficulties:</b>	<ul style="list-style-type: none"><li>- In-situ sediment (primarily paper sludge) was about 25-30% solids. However, removal was typically at 3-5% solids. The layers of paper sludge were light and fluffy. The dredge head tended to “blow it away” rather than “suck it up.”</li><li>- Lots of wood chips were present, as well as logs. Sometimes the dredge head would, unknowingly to the operator, be “gnawing away” on a log. The dive team would eventually be sent to investigate, and remove the obstruction. Severson used Buffalo Industrial Diving Company. Initially, a 3-man crew was used but increased to a 4-man crew. Divers are union, but were willing to assist on other work also (e.g., they assisted the pile driving crew).</li><li>- Substantial debris and some large rocks were encountered. Embedded debris and large embedded rocks were left in place and work continued around the obstructions.</li><li>- A 57-acre area was dredged. Deepest removal was 17' of sediment, but average removal depth was 1.6' of sediment. The determination to continue dredging was often made by inserting a tube into the sediment; if sludge-type material was encountered, then dredging continued. The layers of paper sludge were sometimes intermixed with layers of sand. Apparently, historically, sand would wash in; then the plant would discharge more paper sludge; then sand would wash in . . . creating layers.</li><li>- The bottom surface in the Bay is not flat. Peaks and valleys (up to 5') are present with peaks of hard sand which are more difficult to dredge than paper sludge. The contractor convinced the agency to leave peaks and only remove contaminated materials, which are typically found in the valleys.</li><li>- Overall cost per cubic yard (combined and shore): \$174 per cy. One of the reasons for this relatively low overall unit cost is due to the relatively low disposal cost for the sediment; it was relatively light (0.6-0.8 tons per cy), and a low \$120 per ton transport and disposal cost at Model</li></ul>	

## REMEDIAL ACTION IMPLEMENTED

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**Project Name:** CUMBERLAND BAY

**ProjectID:** 02-03

**Last Updated:** 07/14/04

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City. Additionally, some sediment was disposed as non-TSCA. However, a greater than estimated percentage was TSCA waste.

- The WWTF was designed by others. Severson bid against this design and, as a result, ended up bringing in \$400K of equipment that they ended up not using (it created "pinch points"). Also, at the beginning of the project, the need for ammonia stripping was identified. This resulted in a joint "design fix" between Severson and the NYSDEC's engineer.

- Dredging in and around the former Wilcox dock area was originally sequenced to attempt to segregate TSCA and non-TSCA materials; this was found to be impractical and the dredging was modified to allow sediment removal in lifts greater than 2 feet. In addition, sludge in this area contained pockets of gas that when exposed would lift the sludge to the surface. This resulted in repeated dredge passes in an attempt to capture the resuspended material.

### **Monitoring Data**

#### **References:**

- **Sediment**
- **Water:**
- **Fish:**

***POTENTIALLY RESPONSIBLE PARTIES***

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***Project Name*** **CUMBERLAND BAY**

***ProjectID:*** 02-03

***PRP Name:*** PRP INFORMATION NOT RELEASED

***PRPID:***

***Street Address:***

***City:***

***State:***

---

## **KEY CONTACTS**

---

***Project Name*** **CUMBERLAND BAY**

***ProjectID:*** 02-03

***Last Name:*** KEY CONTACT INFORMATION NOT RELEASED

***Contact ID:***

***First Name:***

***Title:***

***Company:***

***Address:***

***City:***

***State:***

***Postal Code:***

***Work Phone # :***

***Other Phone #:***

***Fax # :***

***Email Address:***

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** A

**ReferenceID:** 176

**Title:** *Site Characterization Report: Sludge Bed - Wilcox Dock IRM*

**Location:** AEM

**Category:** Contaminated Sediments: Investigation/Delineation

**Prepared by/Author:** Rust Environment and Infrastructure, Inc.

**Preparer/Author Address:** 12 Metro Park Road  
Albany, NY 12205

**Prepared For:** Superfund Standby Program, NYSDEC - Cumberland Bay Work Assignment  
No. D002520-32

**Date Published:** November 1995

**Key Words and Phrases:**

---

**Reference Type:** A

**ReferenceID:** 177

**Title:** *Feasibility Study Report: Cumberland Bay Sludge Bed - Wilcox Dock*

**Location:** AEM

**Category:** RI/FS

**Prepared by/Author:** Rust Environment and Infrastructure, Inc.

**Preparer/Author Address:** 12 Metro Park Road  
Albany, NY 12205

**Prepared For:** Superfund Standby Program, NYSDEC - Cumberland Bay Work Assignment  
No. D002520-32

**Date Published:** March 5, 1996

**Key Words and Phrases:**

---



## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** A

**ReferenceID:** 193

**Title:** **Record of Decision: Cumberland Bay Sludge Bed-Wilcox Dock Site (OU-1)**  
**Plattsburgh, Clinton County**  
**Site Number 5-10-017**

**Location:** AEM

**Category:** ROD/Proposed Plan/Action Memo/Decision Document

**Prepared by/Author:** NYS Department of Environmental Conservation,  
Division of Environmental Remediation

**Preparer/Author Address:**

**Prepared For:** General Public

**Date Published:** December 1997

**Key Words and Phrases:**

---

**Reference Type:** A

**ReferenceID:** 214

**Title:** **Site Characterization Report Addendum No. 1: Baseline Health Risk Assessment and Baseline Environmental Risk Assessment**

**Location:** AEM

**Category:** Risk Assessment

**Prepared by/Author:** Rust Environment and Infrastructure, Inc.

**Preparer/Author Address:** 12 Metro Park Road  
Albany, NY 12205

**Prepared For:** NYSDEC

**Date Published:** May 1997

**Key Words and Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** A  
**Title:** *Feasibility Study*  
**Location:** BBL  
**Category:** RI/FS  
**Prepared by/Author:** Rust Environment and Infrastructure, Inc.  
**Preparer/Author Address:** 12 Metro Park Road  
Albany, NY 12205  
**Prepared For:** NYSDEC  
**Date Published:** May 1997  
**Key Words and Phrases:**

---

**ReferenceID:** 215

**Reference Type:** A  
**Title:** *Order on Consent: In the Matter of a Settlement Relating to the Cumberland Bay Sludge Bed ...*  
**Location:** AEM  
**Category:** Legal  
**Prepared by/Author:** NYSDEC  
**Preparer/Author Address:**  
**Prepared For:** Georgia-Pacific Corporation  
**Date Published:** July 1997  
**Key Words and Phrases:**

---

**ReferenceID:** 311

**Reference Type:** A  
**Title:** *Contract Documents: Cumberland Bay Sludge Bed Removal and Disposal Contract (selected pages)*  
**Location:** AEM  
**Category:** Bid Package  
**Prepared by/Author:** Rust Environment and Infrastructure, Inc.  
**Preparer/Author Address:** 12 Metro Park Road  
Albany, NY 12205  
**Prepared For:** NYSDEC  
**Date Published:** October 16, 1998  
**Key Words and Phrases:**

---

**ReferenceID:** 414

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** A

**ReferenceID:** 572

**Title:** *Monitoring Plan for Dredging Cumberland Bay Sludge Bed - 1999 Dredging Season (Selected Pages)*

**Location:** AEM

**Category:** Monitoring Plan/Report

**Prepared by/Author:** Blasland, Bouck & Lee, Inc.

**Preparer/Author Address:** 6723 Towpath Road  
P.O. Box 66  
Syracuse, NY 13214

**Prepared For:** Georgia-Pacific Corporation

**Date Published:** May 1999

**Key Words and Phrases:**

---

**Reference Type:** A

**ReferenceID:** 617

**Title:** *Turbidity vs. TSS Water Column Monitoring Results*

**Location:** AEM

**Category:** Monitoring, Remediation (Pre- and during)

**Prepared by/Author:** Tom Higinbotham

**Preparer/Author Address:** New York State Department of Environmental Conservation

**Prepared For:**

**Date Published:** August 1, 1999

**Key Words and Phrases:**

---

**Reference Type:** A

**ReferenceID:** 618

**Title:** *Cumberland Bay Year 2000 Confirmation Sample Results*

**Location:** AEM

**Category:** Monitoring, Remediation (Pre- and during)

**Prepared by/Author:** New York State Department of Environmental Conservation

**Preparer/Author Address:**

**Prepared For:**

**Date Published:** October 6, 2000

**Key Words and Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** A

**ReferenceID:** 647

**Title:** *Cumberland Bay Sludge Bed Removal and Disposal Contract  
(Section 3.08, Water Quality Monitoring and Shut-down Criteria)*

**Location:** AEM

**Category:** Remedial Action Plan/Work Plan

**Prepared by/Author:** Rust Environment and Infrastructure, Inc.

**Preparer/Author  
Address:** Albany, NY

**Prepared For:** NYSDEC

**Date Published:** October 16, 1998

**Key Words and  
Phrases:**

---

**Reference Type:** A

**ReferenceID:** 673

**Title:** *Cumberland Bay Sludge Bed Removal Project*

**Location:** AEM

**Category:** Close-Out Report

**Prepared by/Author:** NYSDEC

**Preparer/Author  
Address:**

**Prepared For:** Distribution

**Date Published:** April 2001

**Key Words and  
Phrases:**

---

**Reference Type:** A

**ReferenceID:** 771

**Title:** *Fact Sheet: Cumberland Bay Sludge Bed Removal and Disposal*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** NYSDEC, Region 5

**Preparer/Author  
Address:**

**Prepared For:** General Public

**Date Published:** March 2000

**Key Words and  
Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** A

**ReferenceID:** 833

**Title:** *Post-Dredging Monitoring Plan (includes FSP, QAPP, and HASP)*

**Location:** AEM

**Category:** Monitoring, Post

**Prepared by/Author:** Earth Tech Environment & Infrastructure, Inc.

**Preparer/Author  
Address:** 12 Metro Park Road  
Albany, NY 12205

**Prepared For:** Superfund Standby Program  
New York State Department of Environmental Conservation  
50 Wolf Road  
Albany, NY 12233

**Date Published:** January 2001

**Key Words and  
Phrases:**

---

**Reference Type:** A

**ReferenceID:** 1065

**Title:** *Construction Certification Report - Cumberland Bay Sludge Bed  
Removal and Disposal Contract (OU1): Remediation of  
Cumberland Bay*

**Location:** AEM

**Category:** Close-Out Report

**Prepared by/Author:** Earth Tech Environment and Infrastructure, Inc.

**Preparer/Author  
Address:**

**Prepared For:** NYSDEC, State Superfund Standby Program

**Date Published:** December 2002

**Key Words and  
Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** B

**ReferenceID:** 284

**Title:** *Cumberland Bay Sludge Bed - Wilcox Dock; NYSDEC Inactive Hazardous Waste Disposal Report*

**Location:** BBL

**Category:** Site Update

**Prepared by/Author:** New York State Department of Environmental Conservation

**Preparer/Author Address:** Albany, NY

**Prepared For:** General Public

**Date Published:** April 1, 1998

**Key Words and Phrases:**

---

**Reference Type:** B

**ReferenceID:** 296

**Title:** *Cleanup of Cumberland Bay PCB Contamination Begins*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** New York State Department of Environmental Conservation

**Preparer/Author Address:** Albany, NY

**Prepared For:** News Release

**Date Published:** July 15, 1999

**Key Words and Phrases:**

---

**Reference Type:** B

**ReferenceID:** 453

**Title:** *PCB Cleanup Completed in Cumberland Bay - 20,000 Pounds of PCBs in Contaminated Paper Sludge Removed from Lake Champlain*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** New York State Department of Environmental Conservation

**Preparer/Author Address:**

**Prepared For:** General Public

**Date Published:** November 13, 2000

**Key Words and Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** B **ReferenceID:** 504  
**Title:** *Cumberland Bay Sludge Bed Removal and Disposal*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** New York State Department of Environmental Conservation  
**Preparer/Author Address:** Albany, NY  
**Prepared For:** General Public  
**Date Published:** March 2000  
**Key Words and Phrases:**

---

**Reference Type:** B **ReferenceID:** 978  
**Title:** *e-mail re: Cumberland Bay dredging status*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** Blasland, Bouck & Lee, Inc.  
**Preparer/Author Address:** 6723 Towpath Road  
P.O. Box 66  
Syracuse, NY 13214  
**Prepared For:** Distribution  
**Date Published:** December 4, 1998  
**Key Words and Phrases:**

---

**Reference Type:** C **ReferenceID:** 145  
**Title:** *N.Y. to study Cumberland Bay Sludge Pits*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:**  
**Preparer/Author Address:**  
**Prepared For:** Superfund Week  
**Date Published:** May 26, 1995  
**Key Words and Phrases:**

---



## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** C  
**Title:** *Cumberland Bay Clean-up*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** Lori Fisher  
**Preparer/Author Address:** Lake Champlain Committee  
**Prepared For:** Lakelines  
**Date Published:** 2001 Winter/Spring  
**Key Words and Phrases:**

---

**ReferenceID:** 671

**Reference Type:** C  
**Title:** *Turbidity Monitoring*  
**Location:** AEM  
**Category:** Resuspension  
**Prepared by/Author:**  
**Preparer/Author Address:**  
**Prepared For:** World Dredging Mining & Construction  
**Date Published:** August 1999  
**Key Words and Phrases:**

---

**ReferenceID:** 899

**Reference Type:** D  
**Title:** *Firm agrees to pay \$9 million for Champlain cleanup*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:**  
**Preparer/Author Address:**  
**Prepared For:** The Glens Falls (NY) Post Star  
**Date Published:** July 31, 1997  
**Key Words and Phrases:**

---

**ReferenceID:** 3

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** D

**ReferenceID:** 4

**Title:** *DEC wants PCBs dredged from bay - Mill, city had lobbied against plan*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:**

**Preparer/Author  
Address:**

**Prepared For:** The Plattsburgh (NY) Press-Republican

**Date Published:** July 16, 1997

**Key Words and  
Phrases:**

---

**Reference Type:** D

**ReferenceID:** 6

**Title:** *Debate brews over bay PCB cleanup*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:**

**Preparer/Author  
Address:**

**Prepared For:** The Plattsburgh (NY) Press-Republican

**Date Published:** March 30, 1997

**Key Words and  
Phrases:**

---

**Reference Type:** D

**ReferenceID:** 7

**Title:** *Public meeting on PCBs in Cumberland Bay set*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:**

**Preparer/Author  
Address:**

**Prepared For:** The Plattsburgh (NY) Press-Republican

**Date Published:** March 21, 1997

**Key Words and  
Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** D  
**Title:** *Bay PCB cleanup must start at source*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** Jeff Meyers, Staff Writer  
**Preparer/Author Address:**  
**Prepared For:** The Plattsburgh (NY) Press-Republican  
**Date Published:** November 6, 1997  
**Key Words and Phrases:**

---

**ReferenceID:** 31

**Reference Type:** D  
**Title:** *State to report on PCB cleanup in bay*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** Jeff Meyers, Staff Writer  
**Preparer/Author Address:**  
**Prepared For:** The Plattsburgh (NY) Press-Republican  
**Date Published:** July 19, 1998  
**Key Words and Phrases:**

---

**ReferenceID:** 41

**Reference Type:** D  
**Title:** *DEC examining bids for PCB cleanup in bay*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** Jeff Meyers  
**Preparer/Author Address:**  
**Prepared For:** The Plattsburgh (NY) Press-Republican  
**Date Published:** January 28, 1999  
**Key Words and Phrases:**

---

**ReferenceID:** 65

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** D  
**Title:** *Cumberland Bay scoured of PCBs*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** Nancy Bazilchuk  
**Preparer/Author Address:**  
**Prepared For:** The Burlington (VT) Free Press  
**Date Published:** November 5, 1999  
**Key Words and Phrases:**

---

**ReferenceID:** 93

**Reference Type:** D  
**Title:** *News transcripts for 11/15/99 (WPTZ, Channel 5, Plattsburgh, NY)*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** Thom Hallock and Stephanie Gorin  
**Preparer/Author Address:** WPTZ, Channel 5  
Plattsburgh  
**Prepared For:** General Public  
**Date Published:** November 15, 1999  
**Key Words and Phrases:**

---

**ReferenceID:** 108

**Reference Type:** D  
**Title:** *Expeditious bay cleanup nearly done*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** Jeff Meyers  
**Preparer/Author Address:**  
**Prepared For:** The Plattsburgh (NY) Press-Republican  
**Date Published:** November 6, 1999  
**Key Words and Phrases:**

---

**ReferenceID:** 111

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** D

**ReferenceID:** 128

**Title:** *Photograph entitled "Heart of the Matter"*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:**

**Preparer/Author**

**Address:**

**Prepared For:** The Plattsburgh (NY) Press-Republican

**Date Published:** May 2, 2000

**Key Words and  
Phrases:**

---

**Reference Type:** D

**ReferenceID:** 135

**Title:** *Doing the Right Thing By the Lake*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** Jeff Meyers

**Preparer/Author**

**Address:**

**Prepared For:** Lakelines (Lake Champlain Committee Publication)

**Date Published:** 2000

**Key Words and  
Phrases:**

---

**Reference Type:** D

**ReferenceID:** 147

**Title:** *A Follow Up to One Of Our Champlain 2000 Stories -- On  
Cleaning Up Lake Champlain's - Worst - Hazardous Waste Site*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:**

**Preparer/Author**

**Address:**

**Prepared For:** News Channel 5 (WPTZ)

**Date Published:** October 26, 2000

**Key Words and  
Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** D  
**Title:** *Tons of PCBs taken from bay*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** Dina Cappiello  
**Preparer/Author Address:**  
**Prepared For:** The Albany (NY) Times Union  
**Date Published:** November 15, 2000  
**Key Words and Phrases:**

---

**ReferenceID:** 151

**Reference Type:** D  
**Title:** *Bay cleanup costs twice as much*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** Jeff Meyers  
**Preparer/Author Address:**  
**Prepared For:** The Plattsburgh (NY) Press-Republican  
**Date Published:** November 11, 2000  
**Key Words and Phrases:**

---

**ReferenceID:** 152

**Reference Type:** D  
**Title:** *Lake sludge dredging nearly done: Workers target small remaining pockets; some activity may continue into December*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** Jeff Meyers  
**Preparer/Author Address:**  
**Prepared For:** The Plattsburgh (NY) Press-Republican  
**Date Published:** September 3, 2000  
**Key Words and Phrases:**

---

**ReferenceID:** 183

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** D

**ReferenceID:** 184

**Title:** *Cleanup continues: Additional PCB-contaminated sludge found in lake*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** Jeff Meyers

**Preparer/Author  
Address:**

**Prepared For:** The Plattsburgh (NY) Press-Republican

**Date Published:** April 16, 2000

**Key Words and  
Phrases:**

---

**Reference Type:** D

**ReferenceID:** 185

**Title:** *More sludge found in bay*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** Joe LoTempio

**Preparer/Author  
Address:**

**Prepared For:** The Plattsburgh (NY) Press-Republican

**Date Published:** April 8, 2000

**Key Words and  
Phrases:**

---

**Reference Type:** D

**ReferenceID:** 186

**Title:** *Bay cleanup round-the-clock*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** Marcia Lanphear

**Preparer/Author  
Address:**

**Prepared For:** The Plattsburgh (NY) Press-Republican

**Date Published:** August 13, 1999

**Key Words and  
Phrases:**

---



## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** D

**ReferenceID:** 187

**Title:** *Most favor bay work at night: Extra hours would speed dredging*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** Marcia Lanphear

**Preparer/Author**

**Address:**

**Prepared For:** The Plattsburgh (NY) Press-Republican

**Date Published:** July 30, 1999

**Key Words and  
Phrases:**

---

**Reference Type:** D

**ReferenceID:** 188

**Title:** *No fuel like an old fuel: Sludge-bed cleanup under way*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** Jeff Meyers

**Preparer/Author**

**Address:**

**Prepared For:** The Plattsburgh (NY) Press-Republican

**Date Published:** May 6, 1999

**Key Words and  
Phrases:**

---

**Reference Type:** D

**ReferenceID:** 189

**Title:** *Ahead of schedule: Bay PCB cleanup may be done early*

**Location:** BBL

**Category:** Site Update

**Prepared by/Author:** Marcia Lanphear

**Preparer/Author**

**Address:**

**Prepared For:** The Plattsburgh (NY) Press-Republican

**Date Published:** July 28, 1999

**Key Words and  
Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** E

**ReferenceID:** 128

**Title:** *Sediment Management Seminar 2000 Proceedings (Reference E-121)*

**Location:** AEM

**Category:** Dredging: Remedial (Contaminated Sediments)

**Prepared by/Author:** Blasland, Bouck & Lee, Inc.

**Preparer/Author Address:** 6723 Towpath Road  
P.O. Box 66  
Syracuse, NY 13214

**Prepared For:** Attendees

**Date Published:** February 10-11, 2000

**Key Words and Phrases:**

---

**Reference Type:** E

**ReferenceID:** 133

**Title:** *Sediment Management Seminar February 9-10, 1998 Proceedings (Reference E-137)*

**Location:** AEM

**Category:** Dredging: Remedial (Contaminated Sediments)

**Prepared by/Author:** Blasland, Bouck & Lee, Inc.

**Preparer/Author Address:** 6723 Towpath Road  
P.O. Box 66  
Syracuse, NY 13214

**Prepared For:** Attendees

**Date Published:** February 9-10, 1998

**Key Words and Phrases:**

---

**Reference Type:** E

**ReferenceID:** 213

**Title:** *Dredging Success Stories and Case Studies - A Contractors Perspective*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** Mike Crystal

**Preparer/Author Address:** Severson Environmental Services, Inc.

**Prepared For:** Sediment Management Seminar 2003

**Date Published:** February 6-7, 2003

**Key Words and Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** E

**ReferenceID:** 229

**Title:** *Environmental Dredging: Methods, Trends, and Case Histories*

**Location:** AEM

**Category:** Dredging: Remedial (Contaminated Sediments)

**Prepared by/Author:** B.S. Cushing and M.K. Hammaker

**Preparer/Author** AEM, Inc.

**Address:**

**Prepared For:** WEDA XXI Conference, Houston, TX

**Date Published:** June 24-27, 2001

**Key Words and  
Phrases:**

---

**Reference Type:** G

**ReferenceID:** 10

**Title:** *Cumberland Bay Site, Lake Champlain*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** J. Michael Davis

**Preparer/Author** Georgia-Pacific Corporation

**Address:** Atlanta, GA

**Prepared For:** Sediment Management Seminar, February 9 - 10, 1998

**Date Published:** February 1998

**Key Words and  
Phrases:**

---

**Reference Type:** J

**ReferenceID:** 18

**Title:** *Cumberland Bay update (bid results)*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** Blasland, Bouck & Lee, Inc.

**Preparer/Author** 6723 Towpath Road

**Address:** P.O. Box 66  
Syracuse, NY 13214

**Prepared For:** Distribution

**Date Published:** December 21, 1998

**Key Words and  
Phrases:**

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## REFERENCES

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**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** K  
**Title:** **Project Photos**  
**Location:** AEM  
**Category:** Miscellaneous  
**Prepared by/Author:** Severson  
**Preparer/Author Address:**  
**Prepared For:** Distribution  
**Date Published:** Undated  
**Key Words and Phrases:**

---

**ReferenceID:** 26

**Reference Type:** L  
**Title:** **Memo re: Cumberland Bay (Plattsburgh, NY) Dredging Project: Reconnaissance on 8/12/99**  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** AEM, Inc.  
**Preparer/Author Address:** Malvern, PA 19355  
**Prepared For:** Internal file  
**Date Published:** August 18, 1999  
**Key Words and Phrases:**

---

**ReferenceID:** 47

**Reference Type:** L  
**Title:** **Memo re: Cumberland Bay (Plattsburgh, NY) Dredging Project: Phone Conversation with Paul Thompson, Severson Project Manager**  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** AEM, Inc.  
**Preparer/Author Address:** Malvern, PA 19355  
**Prepared For:** Internal file  
**Date Published:** December 9, 1999  
**Key Words and Phrases:**

---

**ReferenceID:** 62

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** L

**ReferenceID:** 70

**Title:** *Memo re: Water and Solids Handling and Treatment System:  
Cumberland Bay Remedial Dredging Project*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** AEM, Inc.

**Preparer/Author  
Address:** Malvern, PA 19355

**Prepared For:** Distribution

**Date Published:** August 17, 2000

**Key Words and  
Phrases:**

---

**Reference Type:** L

**ReferenceID:** 190

**Title:** *Cumberland Bay Field Documents:  
(1) Memo re: Cumberland Bay Year 1999 Daily Field Reports*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** AEM, Inc.

**Preparer/Author  
Address:** Malvern, PA 19355

**Prepared For:** Internal file

**Date Published:** February 26, 2001

**Key Words and  
Phrases:**

---

**Reference Type:** M

**ReferenceID:** 15

**Title:** *Update on Three High-Profile Sites*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** AEM, Inc.

**Preparer/Author  
Address:** Malvern, PA 19355

**Prepared For:** Distribution

**Date Published:** March 18, 1999

**Key Words and  
Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** M

**ReferenceID:** 97

**Title:** *Lake Champlain Sediment Toxics Assessment Program  
Technical Report No. 23B (selected pages, A-1 thru A-33, on  
Cumberland Bay)*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** Alan McIntosh, Mary Watzin and Erik Brown

**Preparer/Author  
Address:** UVM School of Natural Resources

**Prepared For:** Lake Champlain Management Conference

**Date Published:** February 1994

**Key Words and  
Phrases:**

---

**Reference Type:** M

**ReferenceID:** 192

**Title:** *Memo from BBL transmitting Table of TSS and Turbidity Data  
Compiled by NYSDEC*

**Location:** AEM

**Category:** Resuspension

**Prepared by/Author:** Blasland Bouck & Lee, Inc. and New York State Department of Environmental  
Conservation

**Preparer/Author  
Address:** 6723 Towpath Road  
P.O. Box 66  
Syracuse, NY 13214

**Prepared For:** Project monitoring data

**Date Published:** August 3, 1999

**Key Words and  
Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** M

**ReferenceID:** 425

**Title:** *Results of Contaminated Sediment Cleanups Relevant to the Hudson River: Cumberland Bay, New York*

**Location:** AEM

**Category:** Contaminated Sediments: Overview of Issues

**Prepared by/Author:** Joshua Cleland

**Preparer/Author Address:**

**Prepared For:** Scenic Hudson  
9 Vassar Street  
Poughkeepsie, NY 12601

**Date Published:** October 2000

**Key Words and Phrases:**

---

**Reference Type:** P

**ReferenceID:** 12

**Title:** *Fax re: 1999 NYS DEC Fish Sampling Results*

**Location:** AEM

**Category:** Fish/Biota

**Prepared by/Author:** Blasland, Bouck & Lee, Inc.

**Preparer/Author Address:** 6723 Towpath Road  
P.O. Box 66  
Syracuse, NY 13214

**Prepared For:** Distribution

**Date Published:** November 14, 2000

**Key Words and Phrases:**

---



## REFERENCES

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**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** Q  
**Title:** *Cumberland Bay Dredging: Cost Structure*  
**Location:** AEM  
**Category:** Cost Summary Reports  
**Prepared by/Author:** Blasland, Bouck & Lee, Inc.  
**Preparer/Author Address:** 6723 Towpath Road  
P.O. Box 66  
Syracuse, NY 13214  
**Prepared For:** Distribution  
**Date Published:** April 27, 1999  
**Key Words and Phrases:**

---

**ReferenceID:** 4

**Reference Type:** T  
**Title:** *Cumberland Bay Field Documents:  
(1) Preconstruction Conference Agenda*  
**Location:** AEM  
**Category:** Site Update  
**Prepared by/Author:** NYSDEC  
**Preparer/Author Address:** 50 Wolf Road  
Albany, NY  
**Prepared For:** Records  
**Date Published:** March 31, 1999  
**Key Words and Phrases:**

---

**ReferenceID:** 3

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** T

**ReferenceID:** 4

**Title:** *Cumberland Bay Field Documents:*  
*(1) Letter of Transmittal*  
*(2) List by Dates of Missing Daily Inspection Reports*  
*(3) Daily Inspection Reports 1 thru 276 (1999)*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** (1) Keith A. Decker  
(2) AEM  
(3) John P. McGuire and William L. Eberts

**Preparer/Author Address:** (1 and 3) Earth Tech, Inc.  
12 Metro Park Road  
Albany, NY 12205  
(2) Malvern, PA 19355

**Prepared For:** NYSDEC

**Date Published:** 1999

**Key Words and Phrases:**

---

**Reference Type:** T

**ReferenceID:** 5

**Title:** *Cumberland Bay Field Documents:*  
*(1) Letter of Transmittal*  
*(2) List by Dates of Missing Daily Inspection Reports*  
*(3) Daily Inspection Reports 277 thru 622 (2000)*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** (1) Keith A. Decker  
(2) AEM  
(3) William L. Eberts

**Preparer/Author Address:** (1 and 3) Earth Tech, Inc.  
12 Metro Park Road  
Albany, NY 12205  
(2) Malvern, PA 19355

**Prepared For:** NYSDEC

**Date Published:** 2000

**Key Words and Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** T

**ReferenceID:** 6

**Title:** *Cumberland Bay Field Documents:*  
*(1) Dredge Logs (9/01/99 thru 09/30/99)*  
*(2) Pages from Field Log Books with Dates corresponding to Dredge Logs*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** (1) Earth Tech, Inc.  
(2) Severson Environmental Services, Inc.

**Preparer/Author Address:** (1) 12 Metro Park Road  
Albany, NY 12205  
(2) 2749 Lockport Road  
Niagara Falls, NY 14305

**Prepared For:** Records

**Date Published:** 1999

**Key Words and Phrases:**

---

**Reference Type:** T

**ReferenceID:** 7

**Title:** *Cumberland Bay Field Documents:*  
*(1) Dredge Logs (10/01/99 thru 11/05/99)*  
*(2) Pages from Field Log Books with Dates corresponding to Dredge Logs*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** (1) Earth Tech, Inc.  
(2) Severson Environmental Services, Inc.

**Preparer/Author Address:** (1) 12 Metro Park Road  
Albany, NY 12205  
(2) 2749 Lockport Road  
Niagara Falls, NY 14305

**Prepared For:** Records

**Date Published:** 1999

**Key Words and Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** T

**ReferenceID:** 8

**Title:** ***Cumberland Bay Field Documents:  
(1) Field Notes of Daily Activities (08/09/99 thru 09/01/99)***

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** (1) Severson Environmental Services, Inc.

**Preparer/Author  
Address:** (1) 2749 Lockport Road  
Niagara Falls, NY 14305

**Prepared For:** Records

**Date Published:** 1999

**Key Words and  
Phrases:**

---

**Reference Type:** T

**ReferenceID:** 9

**Title:** ***Cumberland Bay Field Documents:  
(1) Field Notes of Daily Activities (04/28/00 thru 10/10/00)***

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** (1) Severson Environmental Services, Inc.

**Preparer/Author  
Address:** (1) 2749 Lockport Road  
Niagara Falls, NY 14305

**Prepared For:** Records

**Date Published:** 2000

**Key Words and  
Phrases:**

---

**Reference Type:** T

**ReferenceID:** 10

**Title:** ***Cumberland Bay Field Documents:  
(1) Field Notes of Samples Collected (06/07/00 thru 10/11/00)***

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** (1) Severson Environmental Services, Inc.

**Preparer/Author  
Address:** (1) 2749 Lockport Road  
Niagara Falls, NY 14305

**Prepared For:** Records

**Date Published:** 2000

**Key Words and  
Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** T

**ReferenceID:** 11

**Title:** **Cumberland Bay Field Documents:**  
**(1) Daily Inspection Reports (#67, #76, and #78)**

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** NYSDEC

**Preparer/Author Address:** Division of Environmental Remediation  
Bureau of Construction Services  
50 Wolf Road  
Albany, NY 12233-7010

**Prepared For:** Records

**Date Published:** 1999

**Key Words and Phrases:**

---

**Reference Type:** T

**ReferenceID:** 12

**Title:** **Cumberland Bay Field Documents:**  
**(1) Daily Field Reports**

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** Severson Environmental Services, Inc.

**Preparer/Author Address:** 2749 Lockport Road  
Niagara Falls, NY 14305

**Prepared For:** Records

**Date Published:** April 6, 1999

**Key Words and Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** T

**ReferenceID:** 13

**Title:** *Cumberland Bay Field Documents:*  
*(1) List of All Samples and Their Status*  
*(2) List of Samples with Detectable PCB Levels only*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** AEM, Inc.

**Preparer/Author Address:** Malvern, PA 19355

**Prepared For:** Records

**Date Published:** October 6, 2000 and January 9, 2001

**Key Words and Phrases:**

---

**Reference Type:** T

**ReferenceID:** 14

**Title:** *Cumberland Bay Field Documents:*  
*(1) List of All Daily TSCA Manifest Numbers and Weight Records*  
*(2) List of Daily Total Weight for TSCA Manifest Records*

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** AEM, Inc.

**Preparer/Author Address:** Malvern, PA 19355

**Prepared For:** Records

**Date Published:** December 27, 2000 and January 24, 2001

**Key Words and Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** T

**ReferenceID:** 15

**Title:** **Cumberland Bay Field Documents:**  
**(1) List of All Daily Non-TSCA Manifest Numbers and Weight Records**  
**(2) List of Daily Total Weight for Non-TSCA Manifest Records**

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** AEM, Inc.

**Preparer/Author Address:** Malvern, PA 19355

**Prepared For:** Records

**Date Published:** December 27, 2000 and January 24, 2001

**Key Words and Phrases:**

---

**Reference Type:** T

**ReferenceID:** 16

**Title:** **Cumberland Bay Field Documents:**  
**(1) Letter of Transmittal**  
**(2) Report Drawing**  
**(3) Final Sample Drawing**

**Location:** AEM

**Category:** Site Update

**Prepared by/Author:** AEM, Inc.

**Preparer/Author Address:** Malvern, PA 19355

**Prepared For:** Records

**Date Published:** February 22, 2001

**Key Words and Phrases:**

---

## REFERENCES

---

**Project Name** CUMBERLAND BAY

**ProjectID:** 02-03

**Reference Type:** T

**ReferenceID:** 18

**Title:** *Documentation Water Monitoring - Stations #1 through Station #6*

**Location:** AEM

**Category:** Monitoring, Remediation (Pre- and during)

**Prepared by/Author:** New York State DEC

**Preparer/Author Address:** Division of Environmental Remediation  
625 Broadway  
Albany, NY 12233-7013

**Prepared For:**

**Date Published:** July 31, 2001

**Key Words and Phrases:**

---

**Reference Type:** T

**ReferenceID:** 19

**Title:** *Operational and Compliance Water Monitoring*

**Location:** AEM

**Category:** Monitoring, Remediation (Pre- and during)

**Prepared by/Author:** New York State DEC

**Preparer/Author Address:** Division of Environmental Remediation  
625 Broadway  
Albany, NY 12233-7013

**Prepared For:**

**Date Published:** July 31, 2001

**Key Words and Phrases:**

---

**Reference Type:** T

**ReferenceID:** 21

**Title:** *Personal Air Sampling Daily Logs for 8/15/2000*

**Location:** AEM

**Category:** Miscellaneous

**Prepared by/Author:** Earth Tech

**Preparer/Author Address:**

**Prepared For:** NYSDEC

**Date Published:** November 17, 2003

**Key Words and Phrases:**

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## ***FISH ADVISORIES***

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***Project Name*** **CUMBERLAND BAY**

***ProjectID:*** 02-03

***Advisory:*** Cumberland Bay ***AdvisoryID:*** 12  
***Extent:*** Bay within Cumberland Head to Valcour Island  
***Pollutant:*** PCBs (total)  
***Species:*** eel-american  
***Population:*** NCSP  
***Population Definition:*** No Consumption-Subpopulation(s): Advises against consumption for populations that are potentially at greater risk, e.g., pregnant or nursing women, and small children.  
***Advisory Type:*** Lake ***Advisory Number:***  
***Status (Active or Rescinded):*** Rescinded ***Date Rescinded:***  
***Contact Name:*** Tony Forti ***Contact Number:*** 518-402-7815

---

***Advisory:*** Cumberland Bay ***AdvisoryID:*** 451  
***Extent:*** Bay within Cumberland Head to Valcour Island  
***Pollutant:*** PCBs (total)  
***Species:*** eel-american  
***Population:*** RGP  
***Population Definition:*** Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.  
***Advisory Type:*** Lake ***Advisory Number:***  
***Status (Active or Rescinded):*** Rescinded ***Date Rescinded:***  
***Contact Name:*** Tony Forti ***Contact Number:*** 518-402-7815

---

***Advisory:*** Cumberland Bay ***AdvisoryID:*** 15  
***Extent:*** Bay within Cumberland Head to Valcour Island  
***Pollutant:*** PCBs (total)  
***Species:*** walleye > 19"  
***Population:*** NCSP  
***Population Definition:*** No Consumption-Subpopulation(s): Advises against consumption for populations that are potentially at greater risk, e.g., pregnant or nursing women, and small children.  
***Advisory Type:*** Lake ***Advisory Number:***  
***Status (Active or Rescinded):*** Rescinded ***Date Rescinded:***  
***Contact Name:*** Tony Forti ***Contact Number:*** 518-402-7815

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## ***FISH ADVISORIES***

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***Project Name*** **CUMBERLAND BAY**

***ProjectID:*** 02-03

***Advisory:*** Cumberland Bay ***AdvisoryID:*** 452  
***Extent:*** Bay within Cumberland Head to Valcour Island  
***Pollutant:*** PCBs (total)  
***Species:*** walleye > 19"  
***Population:*** RGP  
***Population Definition:*** Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.

***Advisory Type:*** Lake ***Advisory Number:***  
***Status (Active or Rescinded):*** Rescinded ***Date Rescinded:***  
***Contact Name:*** Tony Forti ***Contact Number:*** 518-402-7815

---

***Advisory:*** Lake Champlain ***AdvisoryID:*** 10  
***Extent:*** Bay within Cumberland Head to Crab Island  
***Pollutant:*** PCBs (total)  
***Species:*** all fish  
***Population:*** NCSP  
***Population Definition:*** No Consumption-Subpopulation(s): Advises against consumption for populations that are potentially at greater risk, e.g., pregnant or nursing women, and small children.

***Advisory Type:*** Lake ***Advisory Number:*** 3512  
***Status (Active or Rescinded):*** Active ***Date Rescinded:***  
***Contact Name:*** Tony Forti ***Contact Number:*** 518-402-7815

---

***Advisory:*** Lake Champlain ***AdvisoryID:*** 11  
***Extent:*** Bay within Cumberland Head to Crab Island  
***Pollutant:*** PCBs (total)  
***Species:*** bullhead-brown  
***Population:*** RGP  
***Population Definition:*** Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.

***Advisory Type:*** Lake ***Advisory Number:*** 3512  
***Status (Active or Rescinded):*** Active ***Date Rescinded:***  
***Contact Name:*** Tony Forti ***Contact Number:*** 518-402-7815

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## ***FISH ADVISORIES***

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***Project Name*** **CUMBERLAND BAY**

***ProjectID:*** 02-03

***Advisory:*** Lake Champlain ***AdvisoryID:*** 13  
***Extent:*** Bay within Cumberland Head to Crab Island  
***Pollutant:*** PCBs (total)  
***Species:*** eel-american  
***Population:*** RGP  
***Population Definition:*** Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.

***Advisory Type:*** Lake ***Advisory Number:*** 3512

***Status (Active or Rescinded):*** Active ***Date Rescinded:***

***Contact Name:*** Tony Forti ***Contact Number:*** 518-402-7815

---

***Advisory:*** Lake Champlain ***AdvisoryID:*** 14  
***Extent:*** Bay within Cumberland Head to Crab Island  
***Pollutant:*** PCBs (total)  
***Species:*** perch-yellow  
***Population:*** CFB  
***Population Definition:*** Commercial Fishing Ban: Bans commercial harvest and/or sale due to chemical contamination.

***Advisory Type:*** Lake ***Advisory Number:*** 3512

***Status (Active or Rescinded):*** Active ***Date Rescinded:***

***Contact Name:*** Tony Forti ***Contact Number:*** 518-402-7815

---

***Advisory:*** Lake Champlain ***AdvisoryID:*** 16  
***Extent:*** Bay within Cumberland Head to Crab Island  
***Pollutant:*** PCBs (total)  
***Species:*** perch-yellow  
***Population:*** RGP  
***Population Definition:*** Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.

***Advisory Type:*** Lake ***Advisory Number:*** 3512

***Status (Active or Rescinded):*** Active ***Date Rescinded:***

***Contact Name:*** Tony Forti ***Contact Number:*** 518-402-7815

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## ***FISH ADVISORIES***

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***Project Name*** **CUMBERLAND BAY**

***ProjectID:*** 02-03

***Advisory:*** Lake Champlain ***AdvisoryID:*** 951  
***Extent:*** Entire Lake  
***Pollutant:*** PCBs (total)  
***Species:*** all fish  
***Population:*** NCSP  
***Population Definition:*** No Consumption-Subpopulation(s): Advises against consumption for populations that are potentially at greater risk, e.g., pregnant or nursing women, and small children.  
***Advisory Type:*** Lake ***Advisory Number:*** 746  
***Status (Active or Rescinded):*** Active ***Date Rescinded:***  
***Contact Name:*** Tony Forti ***Contact Number:*** 518-402-7815

---

***Advisory:*** Lake Champlain ***AdvisoryID:*** 952  
***Extent:*** Entire Lake  
***Pollutant:*** PCBs (total)  
***Species:*** trout-lake  
***Population:*** RGP  
***Population Definition:*** Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.  
***Advisory Type:*** Lake ***Advisory Number:*** 746  
***Status (Active or Rescinded):*** Active ***Date Rescinded:***  
***Contact Name:*** Tony Forti ***Contact Number:*** 518-402-7815

---